

AWARE INC /MA/  
Form 10-K  
February 13, 2009

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of The  
Securities Exchange Act of 1934

For the fiscal year ended December 31, 2008

Commission file number 000-21129

AWARE, INC.  
(Exact Name of Registrant as Specified in Its Charter)

Massachusetts  
(State or Other Jurisdiction of  
Incorporation or Organization)

04-2911026  
(I.R.S. Employer Identification No.)

40 Middlesex Turnpike, Bedford, Massachusetts 01730  
(Address of Principal Executive Offices)  
(Zip Code)

(781) 276-4000  
(Registrant's Telephone Number, Including Area Code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value \$.01 per share	The Nasdaq Global Market
Securities registered pursuant to Section 12(g) of the Act: None	

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.  
Yes o No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

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Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.  x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer  Accelerated Filer  Non-Accelerated Filer  Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No  x

As of June 30, 2008 the aggregate market value of the registrant's common stock held by non-affiliates of the registrant, based on the closing sale price as reported on the Nasdaq Global Market, was approximately \$68,716,416.

The number of shares outstanding of the registrant's common stock as of February 9, 2009 was 23,281,204.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement to be delivered to shareholders in connection with the registrant's Annual Meeting of Shareholders to be held on May 20, 2009 are incorporated by reference into Part III of this Annual Report on Form 10-K.

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AWARE, INC.  
 FORM 10-K  
 FOR THE YEAR ENDED DECEMBER 31, 2008

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PART I

ITEM 1. BUSINESS

Company Overview

We have been a leading innovator in digital communications and signal processing technologies for telecommunications and imaging applications for well over a decade. These technologies form the basis of our product and services offerings in Digital Subscriber Line (DSL) silicon intellectual property, DSL test and diagnostics and biometrics and medical imaging.

We license DSL silicon intellectual property (“IP”) that enables customers to manufacture and sell integrated circuits for the DSL industry. Our silicon IP products, which support all asymmetric DSL (“ADSL”) and very high speed DSL (“VDSL”) standards for central office and customer premise equipment applications, are based upon International Telecommunication Union (“ITU”) and other relevant industry standards. Silicon IP customers receive rights to patents, digital and analog chip designs, run-time software and support. DSL continues to be the most widely used broadband wide-area network technology worldwide. In recent years, third parties have also shown an interest in licensing or purchasing our patents related to DSL as well as other areas.

Our test and diagnostics products leverage our DSL technology and semiconductor customer relationships. We sell DSL test and diagnostics hardware and software products to pre-qualify, monitor and troubleshoot DSL service. We sell our hardware and software products to OEM suppliers of DSL test equipment, including automated test-heads and handheld testers. We also sell our software products to telephone companies and network equipment suppliers. Our hardware products support all common DSL network architectures in single platform, easy-to-integrate modules. We enable broad connectivity for DSL test and diagnostics applications by supporting interoperability across an extensive footprint of central office and customer premises equipment. Our Dr. DSL® software products support pre-qualification, provisioning, rate estimation, troubleshooting and maintenance applications. In addition, we sell an advanced test and diagnostics server-based, line diagnostics platform (LDP) that provides a comprehensive, centralized system for analysis and diagnostics of a service provider’s DSL lines. By leveraging existing equipment infrastructure in place for DSL service delivery, LDP enables a cost-effective means for service providers to ensure quality levels and troubleshoot their networks. As phone companies expand their DSL offerings to include IPTV, video and triple play services, there is expected to be an increased need for improved monitoring and troubleshooting of DSL networks.

Our biometrics software products leverage our imaging and biometrics technology. We license and sell a broad range of software products that are used in government systems worldwide. Our products provide solutions suppliers and system integrators with interoperable, standards-compliant, field-proven biometric functionality for enrollment of fingerprints and facial images, ID personalization and reading, and networking. Our products are utilized in biometrics systems for criminal justice, border management and credentialing applications through a customer base of OEMs and system integrators. We also sell to end-users such as government agencies and commercial enterprises. Our server-based Biometrics Services Platform (BioSP)<sup>™</sup> is a modular, flexible software platform that enables developers and integrators to rapidly build and deploy centralized multimodal biometric data processing solutions in support of a service-oriented architecture. The biometrics industry has benefited from the emergence of industry standards and supportive legislation since September 11, 2001. The use of biometrics in security, credentialing and border management applications is becoming pervasive. In addition, we sell software products for medical and digital imaging applications based upon industry standards such as JPEG 2000 and JPIP.

We have research and development activities underway to develop new forms of communications, test, biometrics and imaging technologies. We play an active role at standards setting bodies so that we can anticipate and influence

technology advances and changes in industry requirements.

During 2007 and 2008, approximately 70% and 59%, respectively, of our revenue came from the licensing and sale of DSL silicon IP and patents as well as DSL test and diagnostic hardware and software products. The remainder of our revenue in 2007 and 2008 came from the sale of software products for biometric applications and medical imaging applications and from professional services for biometrics applications.

We are headquartered in Bedford, Massachusetts. Our telephone number is (781) 276-4000, and our website is [www.aware.com](http://www.aware.com). Incorporated in Massachusetts in 1986, we employed 122 people as of December 31, 2008. Our stock is traded on the Nasdaq Global Market under the symbol AWRE.

Our website provides a link to a third-party website through which our annual, quarterly and current reports, and amendments to those reports, are available free of charge. We believe these reports are made available as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC. We do not maintain or provide any information directly to the third-party website, and we are not responsible for its accuracy. You may also access our various SEC filings and reports at the SEC's website at [www.sec.gov](http://www.sec.gov).

## Industry Background

**DSL Industry Background.** DSL technology allows telephone companies to offer high-speed data services and Internet Protocol television ("IPTV") over their existing telephone wires. Telephone companies began tests and trials of ADSL technology in the mid 1990s. Commercial deployment of ADSL services began in modest volumes in 1999, and since then deployments of ADSL services have grown dramatically, particularly outside of the United States. According to announcements by major telephone companies and information compiled by Point Topic Ltd., a company that provides analysis of broadband access to the Internet, approximately 43 million, 42 million and 29 million new ADSL subscribers were added in 2006, 2007, and the first nine months of 2008, respectively. As of the third quarter of 2008, there were approximately 257 million global DSL subscribers worldwide, of which approximately 35 million were in North America; approximately 106 million were in Europe/Middle East/Africa; approximately 99 million were in the Asia Pacific region; and the remainder were in Latin America.

In order to activate DSL service, one end of a telephone wire must be connected to DSL equipment in a central office or remote location controlled by a telephone company and the other end must be connected to a device in the customer's premises. DSL central office and remote location equipment includes DSL access multiplexers ("DSLAMs"), next generation digital loop carriers ("NGDLCs"), and broadband loop carriers ("BLCs"). Devices in the customer's premise are known as DSL customer premises equipment ("CPE") and include modems, routers and devices that support integrated voice and data, known as integrated access devices or gateways.

As the demand for faster residential broadband service continues to grow, telephone companies are upgrading their networks to increase the data rates that are delivered to their residential customers. With higher data rates phone companies can offer IPTV, video and triple play services. IPTV provides phone companies a means to deliver a superior and differentiated TV service by offering more channel selections, better quality and an improved user experience with multiple viewing panes and instantaneous channel switching. IPTV is expected to drive increased demand for the fastest versions of DSL service over the next several years. These network upgrades require large financial expenditures and involve the deployment of fiber optic-based communications to points deeper in the access networks that are closer to residential customers than today's central office locations. The resulting fiber-to-the-node ("FTTN") networks require that new equipment platforms be installed at fiber-fed points. These equipment platforms utilize the existing telephone wire infrastructure and ADSL2+ or VDSL2 standards to provide increased data rates and reliability.

There are approximately 20.4 million worldwide IPTV subscribers today according to Market Research Group ("MRG"), a provider of analyses and market intelligence. MRG forecasts growth to 89.1 million in 2012, with DSL subscribers as the main base for IPTV growth.

As phone companies deploy higher data rates and video services, they also increasingly look for improved solutions for testing, diagnosing and maintaining their DSL networks and services. The DSL test infrastructure can incorporate dedicated hardware as well as software components and subsystems. As the size of the worldwide DSL footprint grows and the nature of service offerings expands to include video and IPTV, there is an increased opportunity for DSL test and diagnostics solutions.

Equipment manufacturers are able to purchase DSL chipsets for telephone company equipment or CPE from suppliers such as Broadcom Corporation (“Broadcom”), Conexant Systems, Inc. (“Conexant”), Ikanos Communications, Inc. (“Ikanos”), Infineon Technologies AG (“Infineon”), and TrendChip Technologies Corporation (“TrendChip”).

Service Providers are able to purchase DSL test and diagnostics products from a number of companies including Alcatel-Lucent (“Alcatel”), Spirent Communications PLC (“Spirent”), Tollgrade Communications, Inc. (“Tollgrade”), JDS Uniphase Corporation (“JDS”), Teradyne, Inc. (“Teradyne”), Sunrise Communications, Inc. (“Sunrise”), Fluke Corporation (“Fluke”), Kurth Electronic GmbH (“Kurth”) and others.



DSL Technology Background. DSL connects an end user to a central location in a telephone company's network such as a central office or remotely controlled location. DSL equipment is required at each end of the telephone line. ADSL2, ADSL2+ and VDSL2 technologies enable transmit speeds between multiple megabits ("Mbps") and 100 Mbps. Actual transmission speeds depend on the length and condition of the existing wire.

The ADSL industry relies on international standards bodies to specify the technology used for ADSL services. Standards bodies that contribute specifications include the American National Standards Institute ("ANSI"), the ITU, the European Telecommunications Standards Institute ("ETSI") and other organizations. The prevalence and influence of industry standards on the ADSL industry make it similar to other communications and networking technologies such as Code Division Multiple Access ("CDMA"), Universal Serial Bus ("USB"), Global System for Mobile telecommunications ("GSM"), Global Positioning System ("GPS"), Wireless Local Area Networking ("WLAN"), and chip-connection technology for Dynamic Random Access Memory ("DRAM"). For the infrastructure and services that use these technologies, standards and patents play a significant role in the formation of the commercial landscape.

In 2002, the ITU approved a set of ADSL standards known as ADSL2 or G.992.3 and G.992.4. These standards provide numerous improvements over previous ADSL standards, including line diagnostics, power management, power down and power cutback, reduced framing and on-line configuration. In 2003, the ITU approved ADSL2+ or G.992.5. ADSL2+ builds upon the ADSL2 standard by increasing achievable data rates to speeds up to 24 Mbps upstream on phone lines as long as 3,000 feet (20 Mbps out to 5,000 feet). While the signal bandwidth of previous ADSL standards was about 1 MHz, ADSL2+ specifies signals with more than 2 MHz of bandwidth.

ITU standards for bonded ADSL, G.998.1 and G.998.2, were approved in January 2005. These standards specify multi-pair ADSL bonding technology for residential and business services. Data rates are increased by a factor equal to the number of lines that are bonded. For example, if two pairs are bonded, upstream and downstream data rates are doubled.

VDSL2 is the fastest version of DSL. In February 2006, the ITU approved the G.993.2 VDSL2 standard which supports bandwidths from 8 MHz to 30 MHz and specifies data rates up to 100 Mbps. VDSL2 supports multiple profiles, each requiring multiple upstream and downstream bands. VDSL2 also supports the functionality improvements found in ADSL2 and ADSL2+.

A new DSL industry standard, called G.inp, is under development at the ITU that will address improved reliability for real-world IPTV deployments over DSL networks.

DSL Test and Diagnostics Industry Background. The ADSL2+ and VDSL2 standards are the first widely deployed DSL standards to incorporate test functionality for analyzing and diagnosing DSL networks. As deployments using these technologies become more pervasive, this functionality will improve phone companies' ability to test and diagnose their networks.

As IPTV, video-based and triple play services become more widely offered through DSL networks, the need for improved pre-qualification, provisioning and maintenance will increase. Television and video services require a higher degree of reliability and robustness than data services.

Service assurance solutions have been put in place for telephone companies' traditional voice services and initial ADSL deployments. We expect an increased interest by phone companies for new service assurance solutions for ADSL2+ and VDSL2 networks for IPTV and video-based services.

Automated test equipment ("ATE") is used for testing and diagnosing DSL lines and services. The DSL ATE infrastructure typically involves the use of a centrally located test-head platform. At this location, information is

gathered from the telephone network and used for remotely provisioning or troubleshooting DSL service.

Information about the DSL network is also gathered using hand-held testers. The information gathered in ATE and handhelds is generally made available to telephone companies' operations organizations through a complex software network. This information assists telephone companies in pre-qualifying, analyzing and diagnosing problems encountered during service deployment or during operation.

Test and diagnostics functions are also performed by DSL network equipment (e.g. DSLAMs) or DSL CPE, though typically to a lesser extent than those performed by dedicated test equipment.

Leading suppliers of ATE hardware and software, handheld devices and operations software include Alcatel, Spirent, Teradyne, Tollgrade, JDS, Sunrise, Fluke, and others.

**Biometrics Industry Background.** Biometric identification systems have traditionally used fingerprints as the primary means to identify individuals and they continue to be pervasive in government and commercial applications. These systems gather fingerprints at enrollment stations and access control locations, and utilize transaction processing hardware and software and matching systems for identification. The emergence of digital fingerprint acquisition devices, compression, and standardized biometric transaction/interchange formats in the 1990s has transformed these systems to electronic systems capable of faster transaction processing and matching. These electronic systems are also capable of being upgraded to utilize biometrics other than or in addition to digital fingerprints, such as iris and facial images.

The capture and secure storage of biometric information over the past ten years has created a foundation for greater use of biometrics in government and commercial activities. There is increased interest in using biometrics to improve security. The emergence and adoption of industry standards for border control and secure credential applications has increased the reach and use of biometrics in security applications. Legislation is driving many government programs now underway that require the use of biometric information in documents such as e-passports and personal identification cards. Personal identity verification (“PIV”) systems are being employed by government agencies to standardize federal employee and contractor IDs and utilize them to control access to government facilities and information systems. The National Institute for Standards and Technology developed the FIPS 201 standard for PIV as mandated by HSPD-12. Other biometrics applications such as border management, and upgrades to state and local automated fingerprint identification systems (“AFIS”) used for fingerprint enrollments are also expected to present opportunities for vendors of biometrics products in the next several years. The use of biometric security systems by regulated segments of the financial, transportation and healthcare industries has also increased. As biometric security systems gain acceptance in new areas, and as infrastructure build-outs take hold, new opportunities are emerging for biometrics solutions suppliers. The biometrics security systems market is also expected to grow as the use of new biometrics, other than or in addition to fingerprints, gain favor.

Vendors of the hardware and/or software component of biometric enrollment stations include Lockheed Martin Corporation (“Lockheed”), Cross Match Technologies, Inc. (“Cross Match”), Unisys Corporation (“Unisys”), Science Applications International Corporation (“SAIC”), L1 Identity Solutions, Inc. (“L1”), Northrop Grumman Corporation (“Northrop”), Hewlett-Packard Electronic Data Systems (“EDS”) and NEC Corporation (“NEC”). Fingerprint matching and/or biometric transaction management systems are provided by companies such as Motorola, Inc. (“Motorola”), Sagem Telecommunications (“Sagem”), NEC, Cogent Communications Group, Inc. (“Cogent”), and numerous system integrators.

#### Aware DSL Silicon Intellectual Property

Aware has been a pioneer of DSL technology since the mid-1990s. We license our StratiPHY2+™ and StratiPHY3™ silicon intellectual property products to semiconductor companies to manufacture and sell chipsets that are compliant with ITU standards. StratiPHY2+ complies with the ADSL2+ standards and StratiPHY-Bonded™ ADSL2+ complies with the ITU G.bond standard. StratiPHY3 supports ADSL2, ADSL2+, VDSL1 and VDSL2 standards. We offer licenses to StratiPHY silicon IP products that include patent rights, copyrighted materials and trade secrets. Copyrighted materials include analog and digital chip designs, available in Verilog or VHDL languages, and software, available in assembly and C-code. We license our copyrighted materials in source code as well as object

code form. We have also manufactured limited quantities of digital and analog chips using our StratiPHY designs.

Customers develop integrated circuits based upon our silicon IP for fabrication in their own or third party manufacturing processes. We also offer engineering services to our customers for the development and support of their chips or chipsets. Our largest customers for StratiPHY have been Infineon and Ikanos.

We also pursue the license and/or sale of patents, as part of our silicon IP offerings as well as on a standalone basis. In recent years, we have seen an increased interest from third parties in purchasing or licensing our patents relating to DSL.

### Aware DSL Test and Diagnostics Products

We have developed test and diagnostics hardware and software products based upon our universal DMT (UDMT™) and Dr. DSL technology. These products are designed to improve the ability of service providers to pre-qualify, provision, monitor, and troubleshoot DSL networks by enabling them to collect important information and diagnose problems regarding their service offerings. The primary goal of these products is to reduce the costs associated with service set-up, troubleshooting and maintenance.

Aware's UDMT modem modules can be software-configured to emulate both DSLAMs and CPEs across a broad range of DSL technologies, including ADSL, ADSL2+, legacy VDSL1/1.5 and VDSL2. A single UDMT module will support all common DSL network architectures so that test solutions can easily and cost-effectively interoperate with installed DSLAMs and CPEs/gateways.

Our principal UDMT modem modules include the 450/455, 550 and 600 model numbers. Each of these are easy-to-integrate, standard-compliant, modules for ADSL/2/2+ and VDSL networks. Each can be software configured to support DSLAM or CPE emulation.

We primarily sell our hardware products to OEMs who supply DSL automated test equipment and DSL handheld testers.

Aware's Dr. DSL software modules perform pre-qualification, fault detection, line diagnostics and line analysis functionality. Dr. DSL software is utilized by our UDMT modules.

Our Dr. DSL Line Diagnostics Platform ("LDP") is a server-based software platform that provides a comprehensive, centralized system for analysis and diagnostics of a service provider's DSL lines. With LDP, a service provider can use existing infrastructure to provide provisioning and maintenance services. This enables telephone companies to perform analysis and diagnostics of traditional POTS and traditional and advanced DSL services, including IPTV and triple play services.

We primarily sell our Dr. DSL software products to automated test equipment, outside plant equipment, and DSL network equipment suppliers. We also sell to telephone companies.

### Aware Biometrics and Imaging Products and Services

Aware has been a pioneer in the development of wavelet-based image compression technology since the late 1980s. Aware provides standards-compliant biometrics software tools that enable integrators, solution providers, and government agencies to compress, analyze, optimize, format, and transport biometric images and data according to domestic and international standards. We have developed software products for biometrics applications that support industry standards.

Our biometrics and imaging products address:

- Data formatting and interchange software components that support NIST, ISO, INCITS, ICAO, and FIPS 201 standards and enable interoperability.
- Image compression software components for fingerprint and facial image compression such as WSQ and JPEG2000.
- Biometric ID cards. Our PIVSuite™ family of software development kits (SDKs) support registration, identity proofing, ID card personalization and issuance applications in compliance with FIPS 201. CaptureSuite™ is a family of SDKs for automatic capture and processing of fingerprints.
- Image processing for biometric quality analysis, capture and transaction processing applications.

·Networking software for building and deploying multimodal biometric data workflow solutions. Our Biometrics Services Platform (BioSPTM) is a service-oriented platform for biometrics data processing and integration applications. BioSP supports the collection of biometrics from a distributed network, and subsequent aggregation, analysis, processing and integration of this data into larger systems.

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We sell our biometrics software products primarily to integrators, OEMs and government agencies. We supply a broad range of fingerprint and facial biometric functionality, including enrollment, ID personalization and reading, and networking. Our solutions address border control and management, secure credentialing, and fingerprint background check applications. We also sell medical imaging and digital imaging software solutions. We have a large number of OEM customers in the biometrics, medical and digital imaging markets.

Beginning in 2007, we expanded our presence in the biometrics market by adding a services element to our offerings. Our professional services are focused on assisting customers with the design and development of systems for biometrics applications. In 2008, we successfully sold professional services to a systems integrator for a contract with a large U.S. government agency.

#### Aware Strategy

We are a technology innovation and product development company. We promote our technology through participation in industry standard setting organizations and attempt to lead the market in obtaining relevant patent protection and in the development of products that support industry standards. We have participated in the DSL and biometrics industries for more than ten years. We primarily market and sell products for the DSL, biometrics and imaging industries through an OEM business model, which allows us to expand the addressable market for our products through the success of our customers. We also market and sell DSL products to telephone companies and biometrics products and services to government agencies.

Key elements of our strategy include:

Lead in the development of standards-based technologies. We actively promote our technology at standards bodies with the goal of including it in new specifications. The use of technology that is compliant with industry standards is prevalent in telecommunications applications and in the DSL industry. The use of standards in biometrics applications has significantly increased since 2001 and is now widespread. By leading in technology developments for widely used standards, we believe that we are better positioned to participate in the markets we are addressing. We have developed a broad portfolio of intellectual property assets including trade secrets, copyrighted materials and US and foreign patents and patent applications.

Leverage our technology assets into market presence. Our technology forms the basis for our product developments in communications, biometrics and imaging applications. Our research and development activities focus primarily on product developments that commercialize our technology into software and hardware products that are easy-to-integrate by OEMs. We are also involved in licensing or selling our patents as a means to commercialize our technology.

Commercialize hardware and software solutions for DSL test and diagnostics applications through an OEM business model. We have developed hardware modules and software solutions for pre-qualifying, provisioning, and troubleshooting DSL networks. These products leverage our DSL expertise, test functionality inherent in ADSL2+ and VDSL2 standard-compliant solutions and our semiconductor customer relationships. We sell to automated test equipment manufacturers, network equipment manufacturers and service providers. By selling primarily through OEMs, we gain broad exposure to growth in spending by phone companies on DSL test and diagnostics solutions.

Commercialize software components and server-based solutions for biometrics applications through an OEM business model. We have developed software products for fingerprint enrollment, border control and secure credential applications. Our Biometrics Services Platform (BioSP) is a server-based software product for enrollment of biometric data for personal identity verification and other applications. We sell products and services primarily to OEM suppliers and systems integrators. We have broad exposure to the biometrics market through our customer base.

## Research and Development

Our research and development activities are focused primarily on improving core technologies in communications and imaging and product developments in DSL, test, biometrics and medical imaging.

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Our DSL engineering activities involve developing analog front-end solutions for broadband applications, developing new DSL technology in support of the emerging G.inp standard and developing home networking technology in support of the ITU's G.hn standard. G.inp is a new ITU standard that will address improved reliability in the presence of impulse noise for IPTV deployments over DSL networks. G.hn is a new ITU standard focused on high-speed networked communications throughout a home by utilizing premises wiring, including coaxial cable, telephone wires and electrical wires, as well as combinations of these broadband technologies.

Our DSL test and diagnostics engineering activities involve improving the functionality of our DSL test and diagnostics hardware and software products to support phone company requirements for pre-qualifying, monitoring and troubleshooting advanced DSL services, including VDSL2 networks and IPTV deployments. During 2008, we introduced new UDMT hardware modules, new functionality into our Dr. DSL software products, and improvements to our LDP server-based software platform for DSL test and diagnostic applications.

Our biometrics and imaging engineering activities are focused on improving our software product functionality and broadening our exposure to biometrics, medical and digital imaging applications. During 2008, we further improved the functionality in our software components for PIV and fingerprint enrollment applications, as well as in our BioSP server-based software platform.

As of December 31, 2008, we had an engineering staff of 86 employees, representing 70% of our total employee staff. During the years ended December 31, 2008, 2007, and 2006, research and development expenses charged to operations were \$13.2 million, \$10.9 million, and \$10.6 million, respectively. In addition, because our agreements often call for us to provide engineering development services to our customers, a portion of our total engineering costs has been allocated to cost of contract revenue. We expect that we will continue to invest substantial funds in research and development activities.

#### Sales and Marketing

Our principal sales and marketing strategy is to sell to OEMs and systems integrators in the market segments we are targeting. We license DSL silicon intellectual property to semiconductor manufacturers. We license and/or sell DSL test and diagnostics hardware and software products primarily to OEM customers, and also to service providers. We license and sell our biometrics and digital imaging software products and provide professional services primarily to OEMs and systems integrators and, to a lesser extent, to government agencies. We believe that decisions involving the selection of our technology and products are frequently made at senior levels within a prospective customer's organization. Consequently, we rely significantly on presentations by our senior management to key employees at prospective customers.

As of December 31, 2008, we had 5 employees in our DSL licensing and test and diagnostics sales and marketing organization. As of December 31, 2008, there were 11 employees in our biometrics and digital imaging software sales organization.

Ikanos and Infineon are selling and/or developing integrated circuits based upon our StratiPHY2plus technology. Infineon is also selling and/or developing integrated circuits based upon our StratiPHY3 technology. We derived approximately 12%, 19%, and 26% of our total revenue from Infineon in 2008, 2007, and 2006, respectively. Prior to 2006, Analog Devices, Inc. ("ADI") was a significant ADSL licensing customer. In February 2006, ADI sold its ADSL business relating to Aware technology to Ikanos, and Ikanos replaced ADI as an Aware customer. In 2006, we derived approximately 20% of our total revenue from the combination of ADI and Ikanos.

We also sell and/or license patents to interested parties. In 2008, we derived approximately 28% of our total revenue from Daphimo Co. B.V. LLC ("Daphimo") for the sale of patents related to communications technology.

There were no test and diagnostics customers that represented more than 10% of our total revenue in 2008 or 2006. In 2007, we derived approximately 16% and 10% of our total revenue from Spirent and Alcatel, respectively.

There were no biometrics customers that represented more than 10% of our total revenue in 2007 or 2006. In 2008, we derived approximately 10% of our total revenue from Technology Management Group, Inc. ("TMG").

All revenue in 2008, 2007, and 2006 was derived from unaffiliated customers.

## Competition

DSL services compete with broadband technologies that use other network architectures to provide high-speed data service. These technologies include cable modems, wireless and fiber-to-the-home services. To date, ADSL services have been more successful than high-speed cable services outside of the United States; however cable services serve a larger number of broadband subscribers than ADSL inside the United States. We can give no assurance that these alternative network architectures will not be more successful than DSL.

As a silicon IP supplier to the semiconductor industry, we face competition from internal development teams within potential semiconductor customers. We must convince potential customers to license or buy from us rather than develop technology internally. Furthermore, our semiconductor customers may choose to abandon joint development projects with us or develop chipsets themselves without using our technology. In addition to competition from internal development teams, we may compete against other independent suppliers of intellectual property for DSL. Semiconductor companies have also been reluctant to enter the DSL market for competitive or strategic reasons.

The market for DSL chipsets is intensely competitive. Our success as a silicon IP supplier requires that DSL equipment manufacturers buy chipsets from our semiconductor customers, and that telephone companies buy DSL equipment from those equipment manufacturers. Our customers' chipsets compete with products from other vendors of standards-based DSL chipsets, including Broadcom, Conexant, and TrendChip.

The markets for our DSL test and diagnostics hardware and software products are competitive and uncertain. We can give no assurance that phone companies will purchase significant quantities of products to test and maintain their DSL networks, or that if they do they will use our products. Our success as a supplier of hardware and software products for DSL test and diagnostics depends in large part on the willingness and ability of OEM customers to design, build and sell automated test heads, hand-held testers, and DSLAMs that incorporate or work with our products. Our success also depends upon our ability to market and sell to service providers.

The markets for our biometrics, medical and digital imaging software products and services are competitive and uncertain. We can give no assurance that the biometrics industry will grow. We can give no assurance that our products and services will succeed in the market. We can give no assurance that we will be able to compete effectively or that competitive pressures will not seriously harm our business.

Our DSL, biometrics, and medical and digital imaging customers and/or their competitors have significantly greater financial, technological, manufacturing, marketing and personnel resources than we do. We can give no assurance that our OEM customers will continue to purchase products from us or that we will be able to compete effectively or that competitive pressures will not seriously harm our business.

## Patents and Intellectual Property

We rely on a combination of nondisclosure agreements and other contractual provisions, as well as patent, trademark, trade secret and copyright law to protect our proprietary rights. We have an active program to protect our proprietary technology through the filing of patents. As of December 31, 2008, we had approximately 42 U.S. patents, 95 foreign patents, and a number of pending patent applications pertaining to telecommunications and signal processing technology, image compression, video compression, audio compression, seismic data compression and optical applications.

Although we have patented certain aspects of our technology, we rely primarily on trade secrets to protect our intellectual property. We attempt to protect our trade secrets and other proprietary information through agreements

with our customers, suppliers, employees and consultants, and through security measures. Each of our employees is required to sign a non-disclosure and non-competition agreement. Although we intend to protect our rights vigorously, we cannot assure you that these measures will be successful. In addition, effective intellectual property protection may be unavailable or limited in certain foreign countries.

Third parties may assert exclusive patent, copyright and other intellectual property rights to technologies that are important to us. In the past, we have received letters from third parties suggesting that we may be obligated to license such intellectual property rights. If we were found to have infringed any third party's patents, we could be subject to substantial damages or an injunction preventing us from conducting our business.

## Manufacturing

We rely on one third party contract manufacturer to assemble and test substantially all of our DSL hardware products. If this company was to terminate its arrangement with us or fail to provide the required capacity and quality on a timely basis, we would be unable to manufacture our products until replacement contract manufacturing services could be obtained. To qualify a new contract manufacturer, familiarize it with our products, quality standards and other requirements, and commence production is a costly and time-consuming process. We cannot assure you that we would be able to establish alternative manufacturing relationships on acceptable terms. Although we make reasonable efforts to ensure that our contract manufacturer performs to our standards, our reliance on a single source limits our control over quality assurance and delivery schedules. Defects in workmanship, unacceptable yields, and manufacturing disruptions and difficulties may impair our ability to manage inventory and cause delays in shipments and cancellation of orders that may adversely affect our relationships with current and prospective customers. As a result, our revenues and operating results may be harmed.

Our internal manufacturing capacity is limited to final test and assembly of certain products. Our current manufacturing systems have been adequate to manage current volumes of hardware products. However, our manufacturing systems have not been extensively tested under more complex hardware products or in volumes higher than that of our current volumes. If our manufacturing systems are inadequate or have other problems, our revenues and operating results may be harmed.

We rely on single source suppliers for components and materials used in our DSL hardware products. Our dependence on single source suppliers involves several risks, including limited control over pricing, availability, quality, and delivery schedules. Any delays in delivery of such components or shortages of such components could cause delays in the shipment of our products, which could significantly harm our business. Because of our reliance on these vendors, we may also be subject to increases in component costs. These increases could significantly harm our business. If any one or more of our single source suppliers cease to provide us with sufficient quantities of our components in a timely manner or on terms acceptable to us, we would have to seek alternative sources of supply. We could incur delays while we locate and engage alternative qualified suppliers and we might be unable to engage alternative suppliers on favorable terms. We could incur substantial hardware and software redesign costs if we are required to replace the components. Any such disruption or increased expenses could harm our commercialization efforts and adversely affect our ability to generate revenues.

## Employees

At December 31, 2008, we employed 122 people, including 86 in engineering, 19 in sales and marketing, 3 in manufacturing and 14 in finance and administration. Of these employees, 116 were based in Massachusetts. None of our employees is represented by a labor union. We consider our employee relations to be good.

We believe that our future success will depend in large part on the service of our technical, sales, marketing and senior management personnel and upon our ability to retain highly qualified technical, sales and marketing and managerial personnel. We cannot assure you that we will be able to retain our key managers and employees or that we will be able to attract and retain additional highly qualified personnel in the future.

## ITEM 1A. RISK FACTORS

Some of the information in this Form 10-K contains forward-looking statements that involve substantial risks and uncertainties. You can identify these statements by forward-looking words such as “may,” “will,” “expect,” “anticipate,” “believe,” “estimate,” “continue” and similar words. You should read statements that contain these words carefully because they: (1) discuss our future expectations; (2) contain projections of our future operating results or financial condition; or (3) state other “forward-looking” information. However, we may not be able to predict future events accurately. The risk factors listed in this section, as well as any cautionary language in this Form 10-K, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. You should be aware that the occurrence of any of the events described in these risk factors and elsewhere in this Form 10-K could materially and adversely affect our business. We assume no obligation to update any forward-looking statements.

### Our Quarterly Results are Unpredictable and May Fluctuate Significantly

Our quarterly revenue and operating results are difficult to predict and may fluctuate significantly from quarter-to-quarter due to the unpredictability of our revenue components.

It is difficult for us to make accurate forecasts of product revenues. Product revenues consist of sales of test and diagnostics hardware as well as biometrics, medical imaging and test and diagnostics software. Sales of hardware and software products fluctuate based upon demand by our customers which is difficult to predict. Since our product revenues include the sales of hardware products which typically have lower gross margins than our other sources of revenue, product gross margins and overall profitability are also difficult to predict.

Contract revenues are also unpredictable. Making accurate predictions of contract revenues from new customers is difficult. The contract negotiation process can be lengthy and the fiscal period in which a new agreement will be entered into, if at all, and the financial terms of such an agreement are difficult to predict. Making accurate predictions of contract revenues from existing customers is also difficult, because such revenues are affected by the level of cooperation we receive from customers; the level of engineering services desired by customers; and the potential of contract termination once a project starts. In addition, customers may not pay us as anticipated under our contracts.

It is also difficult for us to make accurate forecasts of royalty revenues. Royalties are typically recognized in the quarter when we receive a report from a customer detailing sales and royalties due from the prior quarter, such as from the shipment of licensed integrated circuits. Royalties depend upon customer revenues which can be affected by factors beyond our ability to control or assess in advance. These factors include our customers’ ability to generate sales and fluctuating sales volumes and prices of products containing our technology.

Our business is subject to a variety of additional risks, which could materially adversely affect quarterly and annual operating results, including:

- market acceptance of broadband technologies we supply by semiconductor or equipment companies;
  - the extent and timing of new transactions with customers;
- changes in our and our customers’ development schedules and levels of expenditure on research and development;
  - the loss of a strategic relationship or termination of a project by a customer;
  - equipment companies’ acceptance of integrated circuits produced by our customers;
  - the loss by a customer of a strategic relationship with an equipment company customer;
  - announcements or introductions of new technologies or products by us or our competitors;
- delays or problems in the introduction or performance of enhancements or of future generations of our technology;

- failures or problems in our hardware or software products;
- price pressure in the biometrics or test and diagnostics markets from our competitors;
- delays in the adoption of new industry standards or changes in market perception of the value of new or existing standards;
- competitive pressures resulting in lower contract revenues or royalty rates;
- competitive pressures resulting in lower software or hardware product revenues;

- personnel changes, particularly those involving engineering, technical, sales and marketing personnel;
  - costs associated with protecting our intellectual property;
  - the potential that customers could fail to make payments under their current contracts;
- ADSL or VDSL market-related issues, including lower ADSL or VDSL chipset unit demand brought on by excess channel inventory and lower average selling prices for ADSL or VDSL chipsets as a result of market surpluses;
- hardware manufacturing issues, including yield problems in our hardware platforms, and inventory buildup and obsolescence;
- product gross margin may be affected by various factors including, but not limited to, product mix, product life cycle, and provision for excess and obsolete inventory;
  - significant fluctuations in demand for our hardware products;
  - new laws, changes to existing laws, or regulatory developments; and
  - general economic trends and other factors.

As a result of these factors, we believe that period-to-period comparisons of our revenue levels and operating results are not necessarily meaningful. You should not rely on our quarterly revenue and operating results to predict our future performance.

#### We Experienced Net Losses

We had a net annual loss during 2001, 2002, 2003, 2004, and 2005. We may experience losses in the future if:

- the test and diagnostics, semiconductor, telecommunications or biometrics markets decline;
- new and/or existing customers do not choose to use our software or hardware products;
- new and/or existing customers do not choose to license and/or buy our patents; or
- new and/or existing customers do not choose to license our silicon IP for new chipset products or do not maintain or increase their revenues from sales of chipsets with our technology.

#### Our DSL Licensing and DSL Test and Diagnostic Businesses Depend Upon a Limited Number of Customers, Therefore We Derive a Significant Amount of Revenue from a Small Number of Customers

There are a relatively limited number of companies to which we can sell our DSL technology and a limited number of OEM suppliers to which we can sell our DSL test and diagnostic products in a manner consistent with our business model. If we fail to maintain relationships with our current customers or fail to establish a sufficient number of new customer relationships, our business could be seriously harmed. In the recent past, three of our DSL silicon IP customers decided to exit the DSL chipset business, and therefore we do not expect to generate additional revenue from these customers. In addition, our current and prospective customers may use their superior size and bargaining power to demand terms that are unfavorable to us.

Due to the limited number of customers to which we can license and/or sell our DSL technology and patents and our DSL hardware and software products, we derive a significant amount of revenue from a small number of customers. In 2008, we derived approximately 28% and 12% of our total revenue from Daphimo and Infineon, respectively. In 2007, we derived approximately 19%, 16%, and 10% of our total revenue from Infineon, Spirent, and Alcatel, respectively. In 2006, we derived approximately 26% and 20% of our total revenue from Infineon and ADI/Ikanos, respectively. On February 17, 2006 ADI sold its ADSL business relating to Aware technology to Ikanos and Ikanos replaced ADI as an Aware customer.



Our Business is Subject to Rapid Technological Change

The semiconductor and telecommunications industries for high-speed network access technologies are characterized by rapid technological change. The biometrics industry is also subject to rapid technological change and uncertainty. In these industries, new generations of products are introduced regularly and evolutionary improvements to existing products are required. Therefore, we face risks that others could introduce competing technology that renders our DSL or biometrics technology and products less desirable or obsolete. Also, the announcement of new technologies could cause our customers or their customers to delay or defer entering into arrangements for the use of our existing technology. Either of these events could seriously harm our business.

We expect that our business will depend to a significant extent on our ability to introduce new generations of communications and biometrics products as well as new technologies and products that keep pace with changes in these industries. We must continually devote significant engineering resources to achieving technical innovations and product developments. These developments are complex and require long development cycles. Moreover, we may have to make substantial investments in technological innovations and product developments before we can determine their commercial viability. We may lack sufficient financial resources to fund future development. Also, our customers may decide not to share certain research and development costs with us. Revenue from technological innovations, even if successfully developed, may not be sufficient to recoup the costs of development.

One element of our business strategy is to assume the risks of technology development failure while reducing such risks for our customers. In the past, we have spent significant amounts on development projects that did not produce any marketable technologies or products, and we cannot assure you that it will not occur again.

#### We Face Intense Competition from a Wide Range of Competitors

Our ability to generate revenues from our DSL technology depends largely on the willingness and ability of semiconductor manufacturers to design, build and sell integrated circuits based on our intellectual property. The DSL semiconductor industry is intensely competitive and has been characterized by price erosion, rapid technological change, short product life cycles, cyclical market patterns and increasing foreign and domestic competition.

As a silicon intellectual property supplier to the semiconductor industry, we face competition from internal development teams within potential semiconductor customers. We must convince potential customers to license or buy from us rather than develop technology internally. Furthermore, our semiconductor customers may choose to abandon joint development projects with us or develop chipsets themselves without using our technology. In addition to competition from internal development teams, we may compete against other independent suppliers of intellectual property for DSL. New chipset suppliers have also demonstrated a reluctance to enter the DSL market.

The market for DSL chipsets is intensely competitive. Our success as a silicon IP supplier requires that DSL equipment manufacturers buy chipsets from our semiconductor customers, and that telephone companies buy DSL equipment from those equipment manufacturers. Our customers' chipsets compete with products from other vendors of standards-based DSL chipsets, including Broadcom, Conexant, and TrendChip.

The markets for our DSL test and diagnostics hardware and software products are competitive and uncertain. We can give no assurance that phone companies will purchase significant quantities of products to test and maintain their DSL networks, or that if they do they will use our products. Our success as a supplier of hardware and software products for DSL test and diagnostics depends in large part on the willingness and ability of OEM customers to design, build and sell automated test heads, hand-held testers, and DSLAMs that incorporate or work with our products. Our success also depends upon our ability to market and sell to service providers.

Our DSL customers and their competitors have significantly greater financial, technological, manufacturing, marketing and personnel resources than we do. We can give no assurance that our OEM customers will continue to purchase products from us or that we will be able to compete effectively or that competitive pressures will not seriously harm our business.

Our DSL licensing and DSL test and diagnostic revenues are dependent upon the success of ADSL and VDSL services. ADSL and VDSL services offered over copper telephone networks also compete with alternative broadband transmission technologies that use other network architectures. Alternative technologies that use other network architectures to provide high-speed data service include cable modems using cable networks, wireless solutions using wireless networks, and optics technology using fiber optic networks. These alternative broadband transmission

technologies may be more successful than ADSL or VDSL and we may not be able to participate in the markets involving these alternative technologies.

The markets for our biometrics products and services as well as our medical and digital imaging software products are competitive and uncertain. Many of our biometric software competitors have significantly greater financial, technological, marketing and personnel resources than we do. Also, we face intense competition from internal development teams within potential customers. We must convince potential customers to purchase products and services from us rather than develop software or perform services internally. Furthermore, customers, who have already purchased from us, may choose to stop purchasing our software and develop their own software.

We may be unable to compete successfully in our DSL licensing, DSL test and diagnostics, and biometrics and imaging businesses, and our competitive position may be adversely affected in the future by one or more of the factors described in this section.

#### Our Intellectual Property is Subject to Limited Protection

Because we are a technology provider, our ability to protect our intellectual property and to operate without infringing the intellectual property rights of others is critical to our success. We regard our technology as proprietary. Our patent portfolio includes approximately 42 U.S. patents and 95 foreign patents as well as a number of pending patent applications. We also rely on a combination of trade secrets, copyright and trademark law and non-disclosure agreements to protect our unpatented intellectual property. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use our technology without authorization.

As part of our silicon IP agreements, we typically work closely with our customers, who may also be potential competitors, and provide them with proprietary know-how necessary for their development of customized chipsets based on our DSL technology. Although our agreements contain non-disclosure provisions and other terms protecting our proprietary know-how and technology rights, it is possible that, despite these precautions, some of our customers might obtain from us proprietary information that they could use to compete with us in the marketplace. Although we intend to defend our intellectual property as necessary, the steps we have taken may be inadequate to prevent misappropriation.

In the future, we may be involved in legal action to enforce our intellectual property rights relating to our patents, copyrights or trade secrets. Any such litigation could be costly and time-consuming for us, even if we were to prevail. Moreover, even if we are successful in protecting our proprietary information, our competitors may independently develop technologies substantially equivalent or superior to our technology. The misappropriation of our technology or the development of competitive technology could seriously harm our business.

Our technology, software or hardware may infringe the intellectual property rights of others. A large and increasing number of participants in the telecommunications and compression industries have applied for or obtained patents. Some of these patent holders have demonstrated a readiness to commence litigation based on allegations of patent and other intellectual property infringement. Third parties may assert patent, copyright and other intellectual property rights to technologies that are important to our business. In the past, we have received claims from other companies that our technology infringes their patent rights. Intellectual property rights can be uncertain and can involve complex legal and factual questions. We may infringe the proprietary rights of others, which could result in significant liability for us. If we were found to have infringed any third party's patents, we could be subject to substantial damages or an injunction preventing us from conducting our business.

#### Our Ability to Obtain or Enforce Patents Could be Affected by New Laws, Regulations or Rules

We have an active program to protect our proprietary technology through the filing of patents. We have also pursued the license and/or sale of patents, as part of our silicon IP offerings as well as independently. New laws, regulations or rules implemented either by Congress, the United States Patent and Trademark Office, foreign patent offices, or the courts that impact the patent application process, the patent enforcement process or the rights of patent holders could significantly increase our expenses related to patent prosecution or decrease revenues associated with our patents.

While we are not aware that any such changes are likely to occur in the foreseeable future, we cannot assure you that such changes will not occur.

Our DSL Silicon Intellectual Property Business Model Has Unique Challenges

Our success as a licensor of DSL silicon IP depends upon our ability to license our technology to semiconductor or equipment companies, and our customers' willingness and ability to sell products that incorporate our technology.

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We face numerous risks in successfully obtaining suitable customers on terms consistent with our business model, including, among others:

- we must typically undergo a lengthy and expensive process of building a relationship with a potential customer before there is any assurance of an agreement with such party, and in some instances we must convince a potential customer to enter the DSL market.
- we must persuade semiconductor and equipment manufacturers with significant resources to rely on us for critical technology on an ongoing basis rather than trying to develop similar technology internally;
- we must persuade potential customers to bear development costs associated with our technology applications and to make the necessary investment to successfully manufacture chipsets and products using our technology; and
  - we must successfully transfer technical know-how to customers.

Moreover, the success of our business model also depends on the receipt of royalties from customers. Royalties from our customers are often based on the selling prices of their chipsets and products, over which we have little or no control. We also have little or no control over our customers' promotional and marketing efforts. They are not prohibited from competing against us.

Our success depends upon our ability to obtain suitable customers, and is threatened if our current customers cancel or put DSL programs utilizing our technology on hold, or if our customers do not successfully market and sell chipsets or products incorporating our technology.

There Has Been and May Continue to be a Cyclical Demand for DSL Chipsets, and There is Intense Competition for DSL Chipsets, Which Has Caused Our Royalty Revenue to Decline

The royalties we receive are influenced by many of the risks faced by the DSL market in general, including cyclical demand which may result in reduced average selling prices ("ASPs") for DSL chipsets during periods of surplus. In the past, the DSL industry has experienced an oversupply of DSL chipsets, central office equipment or customer premises equipment. Excessive inventory levels led to soft chipset demand, which in turn led to declining ASPs. ASPs have also been under pressure because of intense competition in the DSL chipset marketplace. As a result of the soft demand and declining ASPs for ADSL chipsets, our royalty revenue has decreased substantially. Price decreases for ADSL or VDSL chipsets, and the corresponding decreases in per unit royalties received by us, can be sudden and dramatic. Pricing pressures may continue during 2009 and beyond. Our royalty revenue may decline over the long term.

The Success of Our DSL Licensing Business Requires Acceptance of Our Technology by Equipment Companies

The success of our DSL licensing business is dependent on our ability to generate meaningful royalties from our licensing arrangements with customers. Our ability to generate such royalties is materially affected by the willingness of equipment companies to purchase integrated circuits that incorporate our technology. There are other competitive solutions available for equipment companies seeking to offer broadband communications products. We face the risk that equipment manufacturers will choose those alternative solutions. Generally, our ability to influence equipment companies' decisions whether to purchase integrated circuits that incorporate our technology is limited.

We also face the risk that equipment companies that elect to use integrated circuits that incorporate our technology into their products will not compete successfully against other equipment companies. Many factors beyond our control could influence the success or failure of a particular equipment company that uses integrated circuits based on our technology. Even if equipment companies incorporate chipsets based on our intellectual property into their products, their products may not achieve commercial acceptance or result in meaningful royalties to us.

The Success of Our DSL Licensing and Test and Diagnostics Products Businesses Requires Telephone Companies to Install DSL Service in Volume

The success of our DSL licensing and test and diagnostics products businesses depends upon telephone companies installing DSL service in significant volumes. If telephone companies do not install DSL service in significant volumes, or if telephone companies install broadband service based on other technologies such as cable or fiber-to-the-home, our business will be seriously harmed.

Moreover, our DSL licensing and test and diagnostics products businesses depend on capital equipment spending by telephone companies. If telephone companies reduce their budgets for or decide not to install or utilize equipment dedicated to DSL service or test infrastructure, our business will be severely harmed.

#### The Success of Our DSL Test and Diagnostic Products Depends On a Number of Factors

Our success in developing, introducing, selling, and supporting new and enhanced test and diagnostic products depends upon a variety of factors, including timely and efficient completion of hardware and software design and development, implementation of manufacturing processes, and effective sales, marketing, and customer service. Because of the complexity of our test and diagnostic products, significant delays may occur between a hardware product's initial introduction and commencement of volume production. If we are unsuccessful in developing, introducing, selling and supporting new and enhanced test and diagnostic products, our DSL test and diagnostic business could be seriously harmed.

#### If Our Test and Diagnostic Hardware and Software Products Have Quality Problems, Our Business Could Be Harmed

If our test and diagnostic products have actual or perceived reliability, quality, functionality or other problems, we may suffer reduced orders, higher manufacturing costs, inability to recognize revenue, delays in collecting accounts receivable and higher service, support and warranty expenses or inventory write-offs, among other effects. We believe that the acceptance, volume production, timely delivery and customer satisfaction of our test and diagnostic products is important to our future financial results. As a result, any inability to correct any technical, reliability, parts shortages or other difficulties or to manufacture and ship our test and diagnostic products on a timely basis meeting customer requirements could damage our relationships and reputation with current and prospective customers, which would harm our revenues and operating results. Any product problems that may require repair or replacement may adversely affect our customer and/or vendor relationships and have an impact on support costs, warranty reserves, or inventory reserves, among other effects.



### We are Dependent On a Single Source Contract Manufacturer for the Manufacture of Our DSL Hardware Products, the Loss of Which Would Harm Our Business

We currently depend on one contract manufacturer to manufacture our DSL hardware products. If this company was to terminate its arrangement with us or fail to provide the required capacity and quality on a timely basis, we would be unable to manufacture our products until replacement contract manufacturing services could be obtained. To qualify a new contract manufacturer, familiarize it with our products, quality standards and other requirements, and commence production is a costly and time-consuming process. We cannot assure you that we would be able to establish alternative manufacturing relationships on acceptable terms. Although we make reasonable efforts to ensure that our contract manufacturer performs to our standards, our reliance on a single source limits our control over quality assurance and delivery schedules. Defects in workmanship, unacceptable yields, and manufacturing disruptions and difficulties may impair our ability to manage inventory and cause delays in shipments and cancellation of orders that may adversely affect our relationships with current and prospective customers. As a result, our revenues and operating results may be harmed.

### Our Manufacturing Systems May Not Be Adequate For Our DSL Test and Diagnostics Hardware Product Offerings

Our current manufacturing systems adequately address hardware products we are currently manufacturing in limited volumes. Our manufacturing systems have not been extensively tested under anticipated, more complex hardware products or in volumes higher than that of our current hardware products. If our manufacturing systems are inadequate or have other problems, our revenues and operating results may be harmed.

### We are Dependent on Single Source Suppliers for Components in Our DSL Hardware Products

We rely on single source suppliers for components and materials used in our DSL hardware products. Our dependence on single source suppliers involves several risks, including limited control over pricing, availability, quality and delivery schedules. Any delays in delivery of such components or shortages of such components could cause delays in the shipment of our products, which could significantly harm our business. Because of our reliance on these vendors, we may also be subject to increases in component costs. These increases could significantly harm our business. If any one or more of our single source suppliers cease to provide us with sufficient quantities of our components in a timely manner or on terms acceptable to us, we would have to seek alternative sources of supply. We could incur delays while we locate and engage alternative qualified suppliers and we might be unable to engage alternative suppliers on favorable terms. We could incur substantial hardware and software redesign costs if we are required to replace the components. Any such disruption or increased expenses could harm our commercialization efforts and adversely affect our ability to generate revenues.

### Biometrics Software Business Risks

Our biometrics software business is subject to a variety of additional risks, which could materially adversely affect quarterly and annual revenue and operating results, including:

- market acceptance of our biometric technologies and products;
- changes in contracting practices of government or law enforcement agencies;
- the failure of the biometrics market to experience continued growth;
- announcements or introductions of new technologies or products by our competitors;
- delays or problems in the introduction or performance of enhancements or of future generations of our technology;
- failures or problems in our biometric software products;

- the risk that current or potential customers might decide to develop their own software rather than buy it from us;
- delays in the adoption of new industry biometric standards or changes in market perception of the value of new or existing standards;
  - growth of proprietary biometric systems which do not conform to industry standards;
  - competitive pressures resulting in lower software product revenues;
- personnel changes, particularly those involving engineering, technical and sales and marketing personnel;
  - costs associated with protecting our intellectual property;
  - litigation by third parties for alleged infringement of their proprietary rights;
- the potential that customers could fail to make payments under their current contracts;
  - new laws, changes to existing laws, or regulatory developments; and
  - general economic trends and other factors.

#### Biometrics Services Business Risks

We began to perform engineering services under biometric technology contracts in the fourth quarter of 2007. Over the last several quarters, our biometrics services business has contributed a more meaningful portion of contract revenue. This business is subject to additional risks, which could materially adversely affect quarterly and annual revenue and operating results, including:

- our ability to structure and price technology contracts in a manner that is consistent with our business model;
- our ability to deliver contract milestones: i) in a timely and cost efficient manner, and ii) in a form and condition acceptable to customers;
  - the risk that customers could terminate projects;
- the risk that we rely substantially on third party contractors and consultants to deliver certain contract milestones; and
  - the potential that customers could fail to make payments under their contracts.

Current economic conditions, including the credit crisis affecting the financial markets and the possibility of a global recession, could adversely affect our business, results of operations and financial condition.

The world's financial markets are currently experiencing turmoil, characterized by reductions in available credit, increased costs of credit, volatility in security prices, rating downgrades of investments and reduced valuations of securities generally. These events have materially and adversely impacted the availability of financing to a wide variety of businesses, and the resulting uncertainty has led to reductions in capital investments, overall spending levels, future product plans, and sales projections across industries and markets. These trends could have a material adverse impact on our business, our ability to achieve targeted results of operations and our financial condition as a result of:

- reduced demand for our products or our customers' products that incorporate our technology;
  - increased risk of order cancellations or delays;
  - increased risk that customers may delay or terminate projects;
- increased pressure on the prices for our products or our customers' products that incorporate our technology;
  - greater difficulty in collecting accounts receivable; and
- risks to our liquidity, including the possibility that we might not have access to our cash when needed.

We are unable to predict the likely duration and severity of the current disruption in financial markets and adverse economic conditions in the U.S. and other countries, but the longer the duration the greater the risks we face in operating our business.

#### We Must Make Judgments in the Process of Preparing Our Financial Statements

We prepare our financial statements in accordance with generally accepted accounting principles and certain critical accounting policies that are relevant to our business. The application of these principles and policies requires us to make significant judgments and estimates. In the event that judgments and estimates we make are incorrect, we may have to change them, which could materially affect our financial position and results of operations.

Moreover, accounting standards have been subject to rapid change and evolving interpretations by accounting standards setting organizations over the past few years. The implementation of new standards requires us to interpret and apply them appropriately. If our current interpretations or applications are later found to be incorrect, our financial position and results of operations could be materially affected.

#### If We are Unable to Maintain Effective Internal Controls Over Financial Reporting, Investors Could Lose Confidence In The Reliability of Our Financial Statements, Which Could Result In a Decline in the Price of Our Common Stock

As a public company, we are required to enhance and test our financial, internal and management control systems to meet obligations imposed by the Sarbanes-Oxley Act of 2002. Consistent with the Sarbanes-Oxley Act and the rules and regulations of the SEC, management's assessment of our internal controls over financial reporting and the audit opinion of our independent registered accounting firm as to the effectiveness of our controls is required in connection with our filing of our Annual Report on Form 10-K. If we are unable to timely identify, implement and conclude that we have effective internal controls over financial reporting or if our independent auditors are unable to conclude that our internal controls over financial reporting are effective, investors could lose confidence in the reliability of our financial statements, which could result in a decrease in the value of our common stock. Our assessment of our internal controls over financial reporting may also uncover weaknesses or other issues with these controls that could also result in adverse investor reaction.

### Our Stock Price May Be Extremely Volatile

Volatility in our stock price may negatively affect the price you may receive for your shares of common stock and increases the risk that we could be the subject of costly securities litigation. The market price of our common stock has fluctuated substantially and could continue to fluctuate based on a variety of factors, including:

- quarterly fluctuations in our operating results;
- changes in future financial guidance that we may provide to investors and public market analysts;
- changes in our relationships with our customers;
- announcements of technological innovations or new products by us, our customers or our competitors;

- changes in DSL or biometrics market growth rates as well as investor perceptions regarding the investment opportunity that companies participating in the DSL or biometrics industry afford them;
  - changes in earnings estimates by public market analysts;
  - key personnel losses;
  - sales of our common stock;
  - our stock repurchase activities; and
- developments or announcements with respect to industry standards, patents or proprietary rights.

In addition, the equity markets have experienced volatility that has particularly affected the market prices of equity securities of many high technology companies and that often has been unrelated or disproportionate to the operating performance of such companies. These broad market fluctuations may adversely affect the market price of our common stock.

#### Our Business May Be Affected by Government Regulations

The extensive regulation of the telecommunications industry by federal, state and foreign regulatory agencies, including the Federal Communications Commission, and various state public utility and service commissions, could affect us through the effects of such regulation on our customers and their customers. In addition, our business may also be affected by the imposition of certain tariffs, duties and other import restrictions on components that our customers obtain from non-domestic suppliers or by the imposition of export restrictions on products sold internationally and incorporating our technology. Changes in current or future laws or regulations, in the United States or elsewhere, could seriously harm our business.

#### ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

## ITEM 2. PROPERTIES

We believe that our existing facilities are adequate for our current needs and that additional space sufficient to meet our needs for the foreseeable future will be available on reasonable terms. We currently occupy approximately:

1. 72,000 square feet of office space in Bedford, Massachusetts, which serves as our headquarters. This site is used for our research and development, sales and marketing, and administrative activities. We own this facility.
2. 411 square feet of research and development space in Orinda, California. This facility is currently leased for a 3-year term, which expires on August 31, 2010.

## ITEM 3. LEGAL PROCEEDINGS

From time to time we are involved in litigation incidental to the conduct of our business. We are not party to any lawsuit or proceeding that, in our opinion, is likely to seriously harm our business.

## ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

There were no matters submitted to a vote of security holders during the fourth quarter ended December 31, 2008.

## PART II

## ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is the only class of stock we have outstanding, and it trades on the Nasdaq Global Market under the symbol AWRE. The following table sets forth the high and the low sales prices of our common stock as reported on the Nasdaq Global Market for the periods indicated from January 1, 2007 to December 31, 2008.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2008				
High	\$4.30	\$3.96	\$3.39	\$2.96
Low	3.65	2.85	2.43	1.58
2007				
High	\$6.25	\$6.50	\$6.74	\$5.48
Low	4.95	4.98	3.67	4.01

As of February 9, 2009, we had approximately 130 shareholders of record. This number does not include shareholders from whom shares were held in a "nominee" or "street" name. We have never paid cash dividends on our common stock and we anticipate that we will continue to reinvest any earnings to finance future operations.

We did not sell any equity securities that were not registered under the Securities Act of 1933 during the three months ended December 31, 2008.

## Performance Graph

The following performance graph compares the performance of Aware's cumulative stockholder return with that of a broad market index, the Nasdaq Composite Index, and a published industry index, the RDG Technology Composite Index. The cumulative stockholder returns for shares of Aware's common stock and for the market and industry indices are calculated assuming \$100 was invested on December 31, 2003. Aware paid no cash dividends during the periods shown. The performance of the market and industry indices is shown on a total return, or dividends reinvested, basis.

	Value of Investment (\$)					
	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
A w a r e , Inc.	\$ 100.00	\$ 166.90	\$ 153.13	\$ 183.41	\$ 144.53	\$ 64.35
N a s d a q C o m p o s i t e Index	100.00	110.08	112.88	126.51	138.13	80.47
R D G T e c h n o l o g y Composite	100.00	104.00	106.32	115.97	132.44	75.00



## Issuer Purchases of Equity Securities

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs(1)	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
October 1, 2008 to October 31, 2008	10,100	\$2.46	702,331	\$7,646,321
November 1, 2008 to November 30, 2008	18,800	\$2.26	721,131	\$7,603,874
December 1, 2008 to December 31, 2008	-	-	721,131	\$7,603,874

(1) On August 28, 2007, we issued a press release announcing that our board of directors had approved the repurchase from time to time through December 31, 2008 of up to \$5,000,000 of our common stock. On October 29, 2008, we announced that our board of directors had approved an amendment to the program that increased the total amount of common stock that may be repurchased from \$5,000,000 to \$10,000,000. The amendment also extended the period of time that shares may be repurchased from December 31, 2008 to December 31, 2009.

During 2007 and 2008, we purchased 9,107 and 712,024 shares, respectively, at a total cost of \$38,716 and \$2,357,410, respectively, under this plan.

## ITEM 6. SELECTED FINANCIAL DATA

In the table below, we provide you with our selected consolidated financial data. We have prepared this information using our audited consolidated financial statements for the years ended December 31, 2008, 2007, 2006, 2005, and 2004. When you read this selected financial data, it is important that you read it along with Management's Discussion and Analysis of Financial Condition and Results of Operations, our historical consolidated financial statements, and the related notes to the financial statements, which can be found in Item 8.

Year ended December 31,	2008	2007	2006	2005	2004
	(in thousands, except per share data)				
<b>Statements of Operations Data</b>					
Revenue	\$ 30,517	\$ 26,437	\$ 24,056	\$ 15,667	\$ 16,485
Income (loss) from operations	629	(1,830)	(399)	(3,618)	(1,925)
Net income (loss)	1,776	160	1,034	(2,468)	(1,367)
Net income (loss) per share – basic	\$ 0.08	\$ 0.01	\$ 0.04	\$ (0.11)	\$ (0.06)
Net income (loss) per share – diluted	\$ 0.07	\$ 0.01	\$ 0.04	\$ (0.11)	\$ (0.06)
<b>Balance Sheet Data</b>					
Cash and short-term investments	\$ 45,516	\$ 38,055	\$ 37,834	\$ 36,763	\$ 34,965
Working capital	47,288	45,031	41,372	39,124	37,168
Total assets	57,546	56,383	54,586	49,741	50,183
Total liabilities	3,023	3,147	3,216	2,238	1,427
Total stockholders' equity	54,523	53,236	51,370	47,503	48,756

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## RESULTS OF OPERATIONS

The following table sets forth, for the years indicated, certain line items from our consolidated statements of operations stated as a percentage of total revenue:

Revenue:	Year ended December 31,		
	2008	2007	2006
Product sales	46%	66%	32%
Contract revenue	48	24	52
Royalties	6	10	16
Total revenue	100	100	100
Costs and expenses:			
Cost of product sales	8	15	4
Cost of contract revenue	14	21	22
Research and development	43	41	44
Selling and marketing	16	14	14
General and administrative	17	16	18
Total costs and expenses	98	107	102
Income (loss) from operations	2	(7)	(2)
Interest income	4	8	8
Income before provision for income taxes	6	1	6
Provision for income taxes	-	-	2
Net income	6%	1%	4%

## Product Sales

Product sales consist primarily of revenue from the sale of hardware and software products. Hardware products consist of DSL test and diagnostics hardware, including systems, modules, and modems. Software products consist of software products for biometric, medical imaging and digital imaging applications, as well as DSL test and diagnostics software.

Product sales decreased 20% from \$17.5 million in 2007 to \$14.0 million in 2008. As a percentage of total revenue, product sales decreased from 66% in 2007 to 46% in 2008. The dollar decrease in product sales was primarily due to a \$5.4 million decrease in revenue from the sale of test and diagnostic hardware and software, which was partially offset by a \$1.9 million increase in revenue from the sale of biometric software. The decrease in revenue from the sale of

test and diagnostic products was mainly attributable to: 1) significant sales to three OEM customers in 2007 that did not reoccur at those volumes in 2008; and 2) a challenging telecommunications test equipment environment.

Product sales increased 130% from \$7.6 million in 2006 to \$17.5 million in 2007. As a percentage of total revenue, product sales increased from 32% in 2006 to 66% in 2007. The dollar increase was primarily due to a \$4.9 million increase in revenue from the sale of software products and a \$5.0 million increase from the sale of DSL test and diagnostics hardware products.

#### Contract Revenue

Contract revenue consists of patent, license and engineering service fees that we receive under agreements relating to the sale or license of Aware's patents, DSL technology, DSL test and diagnostic technology, and biometrics technology.

Contract revenue increased 131% from \$6.3 million in 2007 to \$14.7 million in 2008. As a percentage of total revenue, contract revenue increased from 24% in 2007 to 48% in 2008. The dollar increase was primarily due to an \$8.5 million sale of patents relating to communications technology in 2008, whereas there were no patent sales in 2007. We intend to continue to sell and/or license additional patents in the future, subject to customer demand and favorable terms and conditions. Also in 2008, contract revenue increased by \$2.8 million for revenue from biometrics professional services contracts as a result of our expansion into the biometrics services business. Contract revenue increases from patent sales and biometrics professional services contracts were partially offset by a \$2.7 million decrease in revenue from DSL silicon IP contracts with our semiconductor customers. The reasons for the DSL contract revenue decline are discussed in the last paragraph of this section.

Contract revenue decreased 50% from \$12.6 million in 2006 to \$6.3 million in 2007. As a percentage of total revenue, contract revenue decreased from 52% in 2006 to 24% in 2007. The dollar decrease in 2007 was due to \$2.5 million that was recognized in 2006 from the transfer of certain technology licenses as a result of the acquisition of a customer's business that did not reoccur in 2007; \$2.0 million that was recognized in 2006 from a patent licensing agreement with a new customer that did not reoccur in 2007; and a \$1.8 decrease in revenue from DSL silicon IP contracts with semiconductor customers.

The environment for licensing DSL technology over the last few years has been characterized by uncertainty in the semiconductor and telecommunications industries generally, and intense competition and falling prices for DSL chipsets specifically. During the last several years, we have seen customers and potential customers cautiously evaluate new chipset projects or delay or cancel projects in the face of such conditions. Moreover, in the recent past, three of our licensees decided to exit the DSL chipset business altogether. As a result of these conditions and customer actions, we expect that our ability to grow or maintain revenue from these activities in the future will be challenging.

## Royalties

Royalties consist of royalty payments that we receive under agreements with our customers. We receive royalties from customers for rights to Aware technology and/or patents, typically associated with the incorporation of Aware technology and/or patents in customer chipsets or solutions.

Royalties decreased 30% from \$2.6 million in 2007 to \$1.8 million in 2008. As a percentage of total revenue, royalties decreased from 10% in 2007 to 6% in 2008. The dollar decrease in royalties was due to a \$0.7 million decrease in DSL royalties, and a \$0.1 million decrease in biometrics and medical imaging royalties.

Royalties decreased 33% from \$3.9 million in 2006 to \$2.6 million in 2007. As a percentage of total revenue, royalties decreased from 16% in 2006 to 10% in 2007. The dollar decrease in royalties was due to a \$1.1 million decrease in DSL royalties, and a \$0.2 million decrease in biometrics and medical imaging royalties.

Our royalty revenue comes predominantly from ADSL chipset sales by Ikanos and ADSL and VDSL chipset sales by Infineon. Despite steady growth of worldwide DSL subscribers over the last several years, the availability of DSL chipsets from a number of suppliers has caused intense competition among those suppliers. We are uncertain as to whether our licensees will be able to maintain their market shares and chipset prices in the face of such competition, and whether our relationships with them will contribute meaningful royalties to us in the future.

## Cost of Product Sales

Since the cost of software product sales is minimal, cost of product sales consists primarily of the cost of hardware product sales.

Cost of product sales decreased 35% from \$4.0 million in 2007 to \$2.6 million in 2008. As a percentage of product sales, cost of product sales decreased from 23% in 2007 to 18% in 2008, which resulted in gross margins on product sales increasing from 77% to 82%. The dollar decrease in cost of product sales in 2008 was attributable to a \$2.8 million decrease in hardware product sales. The increase in gross margins on product sales was primarily due to a greater proportion of software sales in the product sales mix.

Cost of product sales increased 336% from \$0.9 million in 2006 to \$4.0 million in 2007. As a percentage of product sales, cost of product sales increased from 12% in 2006 to 23% in 2007. The dollar increase in cost of product sales in 2007 was attributable to an increase in hardware product sales. The decrease in overall product margins from 88% in 2006 to 77% in 2007 was principally due to a greater percentage of hardware sales in the sales mix in 2007, which was partially offset by improved margins on hardware products.

#### Cost of Contract Revenue

Cost of contract revenue consists primarily of compensation costs for engineers and expenses for consultants, technology licensing fees, recruiting, supplies, equipment, depreciation and facilities associated with customer development projects. Our total engineering costs are allocated between cost of contract revenue and research and development expense. In a given period, the allocation of engineering costs between cost of contract revenue and research and development is a function of the level of effort expended on each. Commencing in the fourth quarter of 2007, cost of contract revenue also includes direct expenses for third party contractors and consultants for biometrics professional services contracts.

Cost of contract revenue decreased 23% from \$5.4 million in 2007 to \$4.2 million in 2008. As a percentage of contract revenue, cost of contract revenue decreased from 86% in 2007 to 29% in 2008, which resulted in gross margins on contract revenue increasing from 14% to 71%. The \$1.2 million decrease in cost of contract revenue was primarily due to lower DSL contract revenue. Lower cost of contract revenue from DSL contracts was partially offset by increased cost of contract revenue from biometrics professional services contracts, which was due to increased revenue from such contracts. The significant increase in gross margins on contract revenue was due to: 1) an \$8.5 million patent sale which has no cost of contract revenue associated with it; and 2) an increase in contract revenue from biometrics contracts, which have higher margins than DSL contracts.

Cost of contract revenue increased 5% from \$5.2 million in 2006 to \$5.4 million in 2007. As a percentage of contract revenue, cost of contract revenue increased from 41% in 2006 to 86% in 2007. The \$0.2 million dollar increase was primarily due to higher compensation and fringe benefit expenses, which were partially offset by lower stock-based compensation expense. The decrease in contract revenue margins from 59% in 2006 to 14% in 2007 was principally due to the proportions of license fees and engineering services fees in the contract revenue sales mix. Cost of contract revenue is primarily driven by the level of engineering services delivered to meet engineering milestones for customer projects, whereas the cost of contract revenue associated with license fees is minimal. The license fee component of contract revenue declined significantly in 2007, whereas the engineering services fee component remained relatively constant. Accordingly, the cost of contract revenue remained relatively constant despite a significant decrease in total contract revenue.

#### Research and Development Expense

Research and development expense consists primarily of compensation costs for engineers and expenses for consultants, recruiting, supplies, equipment, depreciation and facilities related to engineering projects to improve our communications, test, biometrics and imaging technology, as well as our software and hardware products. Our total engineering costs are allocated between cost of contract revenue and research and development expense. In a given period, the allocation of engineering costs between cost of contract revenue and research and development is a function of the level of effort expended on each.

Research and development expense increased 21% from \$10.9 million in 2007 to \$13.2 million in 2008. As a percentage of total revenue, research and development expense increased from 41% in 2007 to 43% in 2008. The dollar increase in research and development expense was primarily due to a shift of engineering resources from DSL

customer contracts (i.e., cost of contract revenue) to internal development projects (i.e., research and development expense). This resource shift reduced the amount of engineering expenses we allocated to cost of contract revenue, which increased research and development expense to reflect our increased focus on internal projects.

Our research and development spending in 2008 was principally focused on developing analog and digital silicon IP solutions for broadband communications applications, developing test and diagnostics hardware and software, and developing biometrics and imaging software.



Research and development expense increased 3% from \$10.6 million in 2006 to \$10.9 million in 2007. As a percentage of total revenue, research and development expense decreased from 44% in 2006 to 41% in 2007. The dollar increase was primarily from higher compensation and fringe benefit costs of \$0.9 million, higher depreciation costs of \$0.2 million, and other operating costs of \$0.1 million. These cost increases were partially offset by lower stock-based compensation expense of \$0.4 million; lower spending on outside services and consultants of \$0.3 million; and \$0.2 million more expense classified from research and development expense to cost of contract revenue.

#### Selling and Marketing Expense

Selling and marketing expense consists primarily of compensation costs for sales and marketing personnel, travel, advertising and promotion, recruiting, and facilities expense.

Sales and marketing expense increased 27% from \$3.7 million in 2007 to \$4.7 million in 2008. As a percentage of total revenue, sales and marketing expense increased from 14% in 2007 to 16% in 2008. The dollar increase in sales and marketing expense was mainly attributable to headcount growth in the biometrics sales organization, sales commissions on higher biometrics software sales, and sales commissions related to higher contract revenue.

Sales and marketing expense increased 11% from \$3.4 million in 2006 to \$3.7 million in 2007. As a percentage of total revenue, sales and marketing expense was unchanged at 14% in 2006 and 2007. The dollar increase was primarily due to higher compensation and fringe benefit costs of \$0.4 million and management consultants of \$0.1 million, which were partially offset by lower stock-based compensation expense of \$0.2 million. Higher compensation costs were primarily attributable to sales commissions and bonus payments related to higher hardware and software product sales.

#### General and Administrative Expense

General and administrative expense consists primarily of compensation costs for administrative personnel, facility costs, bad debt, audit, legal, stock exchange and insurance expenses.

General and administrative expense increased 23% from \$4.2 million in 2007 to \$5.2 million in 2008. As a percentage of total revenue, general and administrative expense increased from 16% in 2007 to 17% in 2008. The dollar increase in general and administrative expense was mainly attributable to higher legal fees related to patent filings and a lawsuit we filed against a customer, merit salary increases, and higher stock-based compensation expense.

General and administrative expense decreased 4% from \$4.4 million in 2006 to \$4.2 million in 2007. As a percentage of total revenue, general and administrative expense decreased from 18% in 2006 to 16% in 2007. The dollar decrease was mainly attributable to lower stock-based compensation expense of \$0.2 million and lower director's fees and expenses of \$0.1 million, which were partially offset by an increase in compensation and fringe expense of \$0.1 million.

#### Interest Income

Interest income decreased 42%, or \$0.8 million, from \$2.0 million in 2007 to \$1.2 million in 2008. The dollar decrease in interest income was primarily due to a significant fall in money market interest rates during 2008. The decrease was also due to our decision to liquidate our portfolio of auction rate securities and longer term debt instruments early in 2008 and invest the proceeds into a lower-yielding, shorter-term, money market fund.

Interest income increased 10% or \$0.2 million from \$1.8 million in 2006 to \$2.0 million in 2007. The dollar increase was primarily due to higher interest rates earned on our investments throughout 2007.

#### Income Taxes

We are subject to income taxes in the United States and we use estimates in determining our provisions for income taxes. We account for income taxes in accordance with SFAS 109, Accounting for Income Taxes, which is the asset and liability method for accounting and reporting for income taxes. Under SFAS 109, deferred tax assets and liabilities are recognized based on temporary differences between the financial reporting and income tax bases of assets and liabilities using statutory rates.

As of December 31, 2008, we had U.S. federal net operating loss carryforwards for income tax purposes of \$46.5 million that expire beginning in 2009 and state net operating loss carryforwards of \$11.4 million that expire beginning in 2009. We also had U.S. federal tax credits of \$12.8 million that expire beginning in 2009 and state research and development credits of \$6.6 million that expire beginning in 2009. The Internal Revenue Code contains provisions that limit the net operating loss and tax credit carryforwards available to be used in any given year in the event of certain circumstances, including significant changes in ownership interests, as defined.

Our income tax expense consists primarily of provisions associated with state taxes. Due to the uncertainty surrounding the realization of our deferred tax assets, based principally on our significant historical operating losses, we have provided a full valuation allowance against our various tax attributes. We will assess the level of valuation allowance required in future periods. Should more positive than negative evidence regarding the realizability of tax attributes exist at a future point in time, the valuation allowance may be reduced or eliminated altogether. Reduction of the valuation allowance, in whole or in part, would result in a non-cash reduction in income tax expense during the period of reduction.

## LIQUIDITY AND CAPITAL RESOURCES

Since our inception in March 1986, we have financed our activities primarily through the sale of stock. In the years ended December 31, 2008, 2007, and 2006, we received net proceeds from the issuance of stock under employee stock plans of \$0.4 million, \$0.6 million, and \$0.9 million, respectively. In the years ended December 31, 2008 and 2007, we used \$2.4 million and \$38,000, respectively, to repurchase our stock under a program authorized by the board of directors.

In the years ended December 31, 2008 and 2006, our operating activities provided net cash of \$9.4 million and \$2.8 million, respectively. Cash provided by operating activities in 2008 was primarily the result of net income of \$1.8 million, which was increased for non-cash items related to depreciation and amortization of \$0.9 million, and stock-based compensation expense of \$1.5 million. Also in 2008, we increased cash from operating activities by \$5.2 million by lowering our working capital requirements. Cash provided by operating activities in 2006 was primarily the result of net income of \$1.0 million, which was increased for non-cash items related to depreciation and amortization of \$0.7 million, and stock-based compensation expense of \$1.9 million, which was offset by working capital requirements of \$0.8 million. In the year ended December 31, 2007, our operating activities used net cash of \$1.3 million. Cash used in our operating activities in 2007 was primarily the result of net income of \$0.2 million, which was increased for non-cash items related to depreciation and amortization of \$0.9 million, and stock-based compensation expense of \$1.1 million, which was more than offset by higher working capital requirements of \$3.4 million.

In the years ended December 31, 2008, 2007, and 2006, we made capital expenditures of \$0.4 million, \$0.6 million, and \$0.7 million, respectively. Capital expenditures in all three years primarily consisted of spending on computer hardware and software, laboratory equipment, and furniture used principally in engineering activities. We have no material commitments for capital expenditures.

At December 31, 2008, we had cash and cash equivalents of \$45.5 million. While we can not assure you that we will not require additional financing, or that such financing will be available to us, we believe that our cash and cash equivalents will be sufficient to fund our operations for at least the next twelve months.

To date, inflation has not had a material impact on our financial results. There can be no assurance, however, that inflation will not adversely affect our financial results in the future.

## OFF-BALANCE SHEET ARRANGEMENTS

We do not have any arrangements with unconsolidated entities, such as entities often referred to as structured finance, special purpose entities or variable interest entities which are often established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. Accordingly, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had such relationships.

## CONTRACTUAL OBLIGATIONS

We have various contractual obligations impacting our liquidity. The following represents our contractual obligations as of December 31, 2008 (in thousands):

Total	Payments Due By Period			
	Less than	1-3 years	3-5 years	More than

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Contractual Obligations	1 year				5 years	
Operating leases	\$ 22	\$ 13	\$ 9	\$ -	\$ -	-
Purchase orders	442	442	-	-	-	-
Total	\$ 464	\$ 455	\$ 9	\$ -	\$ -	-

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## CRITICAL ACCOUNTING POLICIES

We consider certain accounting policies related to revenue recognition, stock-based compensation, income taxes, inventories, and the allowance for doubtful accounts to be critical policies.

**Revenue recognition.** We derive our revenue from three sources (i) product revenue, which includes revenue from the sale of hardware and software products for the DSL test and diagnostics market and software products for the biometrics, medical and digital imaging markets, (ii) contract revenue, which includes patent, license and engineering service fees that we receive under customer agreements, and (iii) royalties that we receive under customer agreements.

As prescribed by Securities and Exchange Commission Staff Accounting Bulletin No. 104, "Revenue Recognition", we recognize revenue when there is persuasive evidence of an arrangement, the sales price is fixed or determinable, collection of the related receivable is reasonably assured, and delivery has occurred or services have been rendered. We also apply the principles set forth in AICPA Statement of Position No. 97-2, "Software Revenue Recognition", when recognizing software revenue. Our revenue recognition policies are described more fully in Note 2, Summary of Significant Accounting Policies, in the Notes to our Consolidated Financial Statements.

As described below, we make significant judgments and estimates during the process of determining revenue for any particular accounting period.

In determining revenue recognition, we assess whether fees associated with revenue transactions are fixed or determinable and whether or not collection is reasonably assured. We make a judgment whether fees are fixed or determinable based on the payment terms associated with that transaction. We assess collection based on a number of factors, including past transaction history with the customer and the credit-worthiness of the customer. If we determine that collection of a fee is not reasonably assured, we defer the fee and recognize revenue at the time collection becomes reasonably assured.

In addition to these general revenue recognition judgments, we make specific judgments and estimates with respect to the recognition of contract revenue. When our agreements include the delivery of licensing rights and technology as well as the provision of engineering services, we combine the total patent, license and engineering service fees to be paid under the agreement. These total fees are recognized ratably over the expected product development period, subject to the limitation that the cumulative revenue recognized through the end of any period may not exceed cumulative milestones achieved to date. We review assumptions regarding the product development period on a regular basis and make adjustments as required. Consistent with the principles of SAB 104, we believe that this method represents the appropriate systematic method for revenue recognition for this type of contract.

After customers enter into agreements, they often engage us to provide additional engineering work that is beyond the scope of their original agreement. When customers request additional services, both parties agree to engineering fees that are based on the level of effort required. We recognize revenue from these agreements either as engineering services are performed or as milestones are achieved.

**Stock-Based Compensation.** Stock-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the employee's requisite service period (generally the vesting period of the equity award) under the provisions of SFAS 123(R). We elected to adopt the modified prospective transition method as provided by SFAS 123(R) and, accordingly, financial statement amounts for the prior periods have not been restated to reflect the fair value method of expensing stock-based compensation.

We estimate the fair value of stock options using the Black-Scholes valuation model. This valuation model takes into account the exercise price of the award, as well as a variety of significant assumptions. These assumptions used to estimate the fair value of stock options include the expected term, the expected volatility of our stock over the expected term, the risk-free interest rate over the expected term, and our expected annual dividend yield. We believe that the valuation technique and the approach utilized to develop the underlying assumptions are appropriate in calculating the fair values of stock options we grant to employees and directors which are subject to SFAS 123(R) requirements. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by persons who receive equity awards.

Income taxes. As part of the process of preparing our consolidated financial statements we are required to estimate our actual current tax expense. We must also estimate temporary and permanent differences that result from differing treatment of certain items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included in our consolidated balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and to the extent that we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance or increase this allowance in a period for deferred tax assets, which have been recognized, we must include an expense with the tax provision in the statement of operations.

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets, and any valuation allowance recorded against our net deferred tax assets. Our deferred tax assets primarily relate to net operating losses and research and development tax credits that we are carrying forward into future tax periods. As of December 31, 2008, we had a total of \$42.5 million of deferred tax assets for which we had recorded a full valuation allowance.

We adopted the provisions of Financial Standards Accounting Board Interpretation No. 48 Accounting for Uncertainty in Income Taxes ("FIN 48") an interpretation of FASB Statement No. 109 ("SFAS 109") on January 1, 2007. As a result of the implementation of FIN 48, we recognized no material adjustment in the liability for unrecognized income tax benefits. At the adoption date of January 1, 2007 and also at December 31, 2007 and 2008, we had no unrecognized tax benefits. We recognize interest and penalties related to uncertain tax positions in income tax expense.

Inventories. Inventories, which include materials and our contract manufacturer's labor and overhead, are stated at the lower of cost (first-in, first-out basis) or net realizable value. On a quarterly basis, we use consistent methodologies to evaluate all inventories for net realizable value. We record provisions for both excess and obsolete inventory when such write-downs or write-offs are identified through the quarterly review process. The inventory valuation is based upon assumptions about future demand, product mix and possible alternative uses.

Allowance for doubtful accounts. We make judgments as to our ability to collect outstanding receivables and provide allowances for receivables when collection becomes doubtful. Provisions are made based upon a specific review of all significant outstanding invoices. If the judgments we make to determine the allowance for doubtful accounts do not reflect the future ability to collect outstanding receivables, additional provisions for doubtful accounts may be required.

## RECENT ACCOUNTING PRONOUNCEMENTS

Recent Accounting Pronouncements – In September 2006, the FASB issued SFAS No. 157 ("SFAS 157"), "Fair Value Measurements," which defines fair value, establishes guidelines for measuring fair value and expands disclosures regarding fair value measurements. SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. SFAS 157 is effective for fiscal years beginning after November 15, 2007. However, on February 6, 2008, the FASB issued FSP FAS 157-b which defers the effective date of SFAS 157 for one year for nonfinancial assets and nonfinancial liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis. We adopted SFAS 157 on January 1, 2008, except as it applies to those nonfinancial assets and nonfinancial liabilities as noted in FSP FAS 157-b. The partial adoption of SFAS 157 did not have a material impact on our consolidated financial position, results of operations or cash flows. We are currently evaluating the impact of adopting FSP FAS 157-b.



In February 2007, the FASB issued Statement of Financial Accounting Standards No. 159, “The Fair Value Option for Financial Assets and Financial Liabilities, including an amendment of FASB Statements No. 115” (“SFAS 159”). SFAS 159 permits entities to choose, at specified election dates, to measure eligible items at fair value (the “fair value option”). A business entity shall report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting period. This accounting standard is effective as of the beginning of an entity’s first fiscal year that begins after November 15, 2007. We adopted SFAS 159 on January 1, 2008. The adoption of SFAS 159 did not have a material impact on our consolidated financial position, results of operations or cash flows as we have not elected the fair value option for any of the financial assets and liabilities held during the year ended December 31, 2008.

In December 2007, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard ("SFAS") No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB No. 51." SFAS 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. This accounting standard is effective for fiscal years beginning after December 15, 2008. As such, we are required to adopt these provisions on January 1, 2009. We are currently evaluating the impact of SFAS 160 on our consolidated financial statements, but we do not expect it to have a material impact.

In December 2007, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard ("SFAS") No. 141(R), "Business Combinations." SFAS 141(R) establishes principles and requirements for how the acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, an any noncontrolling interest in the acquiree, recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase, and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. This accounting standard is effective for fiscal years beginning after December 15, 2008. SFAS 141(R) will be effective for us on January 1, 2009, and will be applied to any business combination with an acquisition date, as defined therein, that is subsequent to the effective date.

#### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk relates primarily to our investment portfolio, and the effect that changes in interest rates would have on that portfolio. Our investment portfolio has included:

- Cash and cash equivalents, which consist of financial instruments with original maturities of three months or less;
- Short-term investments, which consist of financial instruments with remaining maturities of twelve months or less, and auction rate securities that typically have interest reset dates of twenty-eight days; and
  - Investments, which consist of financial instruments that mature in three years or less.

All of our investments meet the high quality standards specified in our investment policy. This policy dictates the maturity period and limits the amount of credit exposure to any one issue, issuer, and type of instrument.

As of December 31, 2008, our cash and cash equivalents of \$45.5 million were invested in money market accounts. Due to the nature and short duration of these financial instruments, we do not expect that an increase in interest rates would result in any material loss to our investment portfolio. As of December 31, 2008, we had no investments that matured in more than twelve months. We do not use derivative financial instruments for speculative or trading purposes.

ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To Board of Directors and Stockholders of Aware, Inc.:

In our opinion, the consolidated financial statements listed in the index appearing under Item 15 (a) (1) present fairly, in all material respects, the financial position of Aware, Inc, and its subsidiary at December 31, 2008 and December 31, 2007 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2008 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15 (a) (2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 2 to the financial statements, the Company changed its method of accounting for share-based payments on January 1, 2006.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP  
Boston, Massachusetts  
February 13, 2009

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AWARE, INC.  
CONSOLIDATED BALANCE SHEETS  
(in thousands, except share data)

	December 31,	
	2008	2007
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 45,516	\$ 1,806
Short-term investments	-	36,249
Accounts receivable (less allowance for doubtful accounts of \$30 in 2008 and \$55 in 2007)	2,211	7,661
Inventories	1,656	1,424
Prepaid expenses and other current assets	598	708
Total current assets	49,981	47,848
Property and equipment, net	7,463	7,872
Investments	-	494
Other assets, net	102	169
Total assets	\$ 57,546	\$ 56,383
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 466	\$ 939
Accrued expenses	241	174
Accrued compensation	1,480	1,135
Accrued professional	167	156
Deferred revenue	339	413
Total current liabilities	2,693	2,817
Long-term deferred revenue	330	330
Commitments and contingent liabilities (Note 7)		
Stockholders' equity:		
Preferred stock, \$1.00 par value; 1,000,000 shares authorized, none outstanding	-	-
Common stock, \$.01 par value; shares authorized, 70,000,000 in 2008 and 2007; issued and outstanding, 23,281,204 in 2008 and 23,854,708 in 2007	233	239
Additional paid-in capital	83,143	83,626
Accumulated deficit	(28,853)	(30,629)
Total stockholders' equity	54,523	53,236
Total liabilities and stockholders' equity	\$ 57,546	\$ 56,383

The accompanying notes are an integral part of the consolidated financial statements.

AWARE, INC.  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(in thousands, except per share data)

	Years ended December 31,		
	2008	2007	2006
Revenue:			
Product sales	\$ 14,022	\$ 17,491	\$ 7,610
Contract revenue	14,658	6,337	12,569
Royalties	1,837	2,609	3,877
Total revenue	30,517	26,437	24,056
Costs and expenses:			
Cost of product sales	2,589	3,998	918
Cost of contract revenue	4,180	5,425	5,182
Research and development	13,171	10,869	10,591
Selling and marketing	4,739	3,738	3,359
General and administrative	5,209	4,237	4,405
Total costs and expenses	29,888	28,267	24,455
Income (loss) from operations	629	(1,830)	(399)
Interest income	1,163	2,016	1,840
Income before provision for income taxes	1,792	186	1,441
Provision for income taxes	16	26	407
Net income	\$ 1,776	\$ 160	\$ 1,034
Net income per share – basic	\$ 0.08	\$ 0.01	\$ 0.04
Net income per share – diluted	\$ 0.07	\$ 0.01	\$ 0.04
Weighted average shares – basic	23,638	23,738	23,474
Weighted average shares – diluted	23,697	25,084	24,965

The accompanying notes are an integral part of the consolidated financial statements.

AWARE, INC.  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(in thousands)

	Years ended December 31,		
	2008	2007	2006
Cash flows from operating activities:			
Net income	\$ 1,776	\$ 160	\$ 1,034
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	921	878	686
Provision for doubtful accounts	(25)	(20)	-
Stock-based compensation	1,505	1,138	1,937
Increase (decrease) from changes in assets and liabilities:			
Accounts receivable	5,475	(2,903)	(989)
Inventories	(232)	(605)	(733)
Prepaid expenses and other current assets	110	160	(103)
Accounts payable	(473)	247	85
Accrued expenses	423	69	301
Deferred revenue	(74)	(386)	592
Net cash provided by (used in) operating activities	9,406	(1,262)	2,810
Cash flows from investing activities:			
Purchases of property and equipment	(445)	(559)	(666)
Sales of investments	38,743	24,497	15,984
Purchases of investments	(2,000)	(30,009)	(23,521)
Net cash provided by (used in) investing activities	36,298	(6,071)	(8,203)
Cash flows from financing activities:			
Proceeds from issuance of common stock	363	647	896
Shares surrendered by employees to pay taxes related to unrestricted stock	-	(41)	-
Repurchase of common stock	(2,357)	(38)	-
Net cash provided by (used in) financing activities	(1,994)	568	896
Increase (decrease) in cash and cash equivalents	43,710	(6,765)	(4,497)
Cash and cash equivalents, beginning of year	1,806	8,571	13,068
Cash and cash equivalents, end of year	\$ 45,516	\$ 1,806	\$ 8,571

The accompanying notes are an integral part of the consolidated financial statements.





AWARE, INC.  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY  
(in thousands)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity
Balance at December 31, 2005	23,282	\$ 233	\$ 79,093	\$ (31,823)	\$ 47,503
Exercise of common stock options	293	3	881		884
Issuance of unrestricted stock	66	-	367		367
Issuance of common stock under employee stock purchase plan	2	-	12		12
Stock-based compensation expense	-	-	1,570		1,570
Net income				1,034	1,034
Balance at December 31, 2006	23,643	236	81,923	(30,789)	51,370
Exercise of common stock options	198	3	632		635
Repurchase of common stock	(9)	-	(38)		(38)
Issuance of unrestricted stock	29	-	153		153
Shares surrendered by employees to pay taxes related to unrestricted stock	(8)	-	(41)		(41)
Issuance of common stock under employee stock purchase plan	2	-	12		12
Stock-based compensation expense	-	-	985		985
Net income				160	160
Balance at December 31, 2007	23,855	239	83,626	(30,629)	53,236
Exercise of common stock options	136	1	358		359
Repurchase of common stock	(712)	(7)	(2,350)		(2,357)
Issuance of common stock under employee stock purchase plan	2	-	4		4
Stock-based compensation expense	-	-	1,505		1,505
Net income				1,776	1,776
Balance at December 31, 2008	23,281	\$ 233	\$ 83,143	\$ (28,853)	\$ 54,523

The accompanying notes are an integral part of the consolidated financial statements.

AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. NATURE OF BUSINESS

We are a leading technology and software supplier for the telecommunications and biometrics industries. We license silicon intellectual property for Digital Subscriber Line (“DSL”) applications, sell hardware and software products for DSL test applications, and sell software products for biometrics and imaging applications. We also sell and/or license portions of our patent portfolio related to communications, signal processing, and compression technologies. We sell our DSL test hardware and software products primarily through an OEM sales channel. We sell our software products for biometrics, medical and digital imaging applications and professional services for biometrics primarily through an OEM sales channel.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Basis of Presentation** - The consolidated financial statements include the accounts of Aware, Inc. and its subsidiary. All significant intercompany transactions have been eliminated.

**Fair Value Measurements** - In September 2006, the FASB issued SFAS No. 157 ("SFAS 157"), "Fair Value Measurements". SFAS 157 defines fair value, establishes a framework for measuring fair value in accordance with accounting principles generally accepted in the United States, and expands disclosures about fair value measurements. We adopted the provisions of SFAS 157 as of January 1, 2008, for our financial instruments. Although the adoption of SFAS 157 did not materially impact our financial condition, results of operations, or cash flow, we are now required to provide additional disclosures as part of our financial statements.

SFAS 157 establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers include: Level 1, defined as observable inputs such as quoted prices in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

For recognition purposes, on a recurring basis we are required to measure “available-for-sale” investments at fair value. Our available-for-sale investments had a fair value of \$36.7 million as of December 31, 2007 and were included in short-term investments and investments on our consolidated balance sheets. The fair value of these investments was determined using quoted prices in active markets and is considered a Level 1 input. Changes in the fair value of these investments have historically been insignificant. We had no short-term investments or investments, and hence no available-for sale investments, at December 31, 2008.

Our cash and cash equivalents, including money market securities, are also classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices.

**Cash and Cash Equivalents** – Cash and cash equivalents consist primarily of demand deposits and money market funds, which are stated at cost, which approximates fair value.

**Investments** - At December 31, 2007, we categorized the securities we were holding as available-for-sale, since we may have liquidated these investments before maturity. In calculating realized gains and losses, cost is determined using specific identification. Unrealized gains and losses on available-for-sale securities are excluded from earnings and reported in a separate component of stockholders’ equity if material. At December 31, 2007, unrealized gains and losses on securities held were not material. Gross realized gains on available-for-sale securities were \$65,506 in 2008, \$0 in 2007, and \$10 in 2006. Gross realized losses on available-for-sale securities were \$0 in 2008, \$0 in 2007, and

\$3,387 in 2006.

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AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The cost of securities, which approximates fair value, consisted of the following at December 31, 2007 (in thousands):

Short-term investments	2007
Auction variable rate notes	\$ 17,955
Corporate debt securities	2,033
U.S. agency securities	16,261
Total	\$ 36,249

Investments	2007
Corporate debt securities	\$ 494
Total	\$ 494

Short-term investments were scheduled to mature within three to twelve months, and investments were scheduled to mature within one to two years. All income generated from these investments was recorded as interest income.

Allowance for Doubtful Accounts – Accounts are charged to the allowance for doubtful accounts as they are deemed uncollectible based on a periodic review of the accounts.

Inventories – Inventories are stated at the lower of cost or net realizable value. Cost is determined by the first-in, first-out (“FIFO”) method. We evaluate all inventories for net realizable value on a quarterly basis, and record provisions for excess and obsolete inventory when required.

Property and Equipment – Property and equipment are stated at cost. Depreciation and amortization of property and equipment is provided using the straight-line method over the estimated useful lives of the assets. Upon retirement or sale, the costs of the assets disposed of and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is included in the determination of income or loss. Expenditures for repairs and maintenance are charged to expense as incurred.

The estimated useful lives of assets used by us are:

Building and improvements	30 years
Building improvements	5 to 20 years
Furniture and fixtures	5 years
Computer, office & manufacturing equipment	3 years
Purchased software	3 years

Impairment of Long-Lived Assets – We review long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the undiscounted cash flows to the recorded value of the asset. If an impairment is indicated, the asset is written down to its estimated fair value. The cash flow estimates used to identify the potential impairment reflect our best estimates using appropriate assumptions and projections at that time. We believe that no significant impairment of our long-lived assets has occurred as of December 31, 2008 and 2007.

Revenue Recognition – Revenue is recognized in accordance with Staff Bulletin No. 104, “Revenue Recognition,” (“SAB 104”) and related interpretations. Accordingly, our general revenue recognition policy is to recognize revenue when there is persuasive evidence of an arrangement, the sales price is fixed or determinable, collection of the related receivable is reasonably assured, and delivery has occurred or services have been rendered.

We derive our revenue from three sources (i) product revenue, which includes revenue from the sale of DSL hardware and software products and biometrics medical and digital imaging software products, (ii) contract revenue, which includes patent, license and engineering service fees that we receive under customer agreements, and (iii) royalties that we receive under customer agreements. In addition to the above general revenue recognition principles prescribed by SAB 104, our specific revenue recognition policies for each revenue source are more fully described below.

AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Product sales. Product sales consist primarily of revenue from the sale of: (i) hardware products, and (ii) software products.

- Hardware products, including UDMT modem modules and DSL test and development systems, are standalone products that are sold independently of our silicon intellectual property products. The terms of sales generally do not contain provisions that obligate us to provide additional products or services after shipment. Additionally, we do not grant return rights other than normal warranty rights of return. We recognize revenue: (i) upon shipment when products are shipped FOB shipping point, and (ii) upon delivery at the customer's location when products are shipped FOB destination.
- Software products consist of software that is generally sold to OEM customers for integration into their products. The terms of sale generally do not contain provisions that obligate us to provide additional products or services after shipment, other than technical telephone support for a brief period of time post sale. The cost of providing technical support is inconsequential because of the limited scope of the support. Additionally, we do not grant return rights other than normal warranty rights of return, and we generally do not customize software for customers. We also sell maintenance contracts that entitle customers to product updates, which we classify as product revenue.

We recognize software revenue by applying the principles set forth in SAB 104 and American Institute of Certified Public Accountants ("AICPA") Statement of Position No. 97-2, "Software Revenue Recognition". Accordingly, we recognize revenue for software licenses: (i) upon shipment when products are shipped FOB shipping point, and (ii) upon delivery at the customer's location when products are shipped FOB destination. We recognize revenue for maintenance contracts ratably over the related contract period.

Contract revenue. We enter into nonexclusive agreements with customers that generally require us to deliver patents, technology and/or provide engineering services. In return, we receive one or more of the following forms of consideration: (i) patent fees; (ii) license fees; (iii) engineering service fees; and (iv) royalty payments.

License fees, patent fees or engineering services fees are typically paid and the revenue is recognized during the product development period as technology is delivered or as engineering services milestones are achieved. Engineering milestones have historically been formulated to correlate with the estimated level of effort and related costs. We classify license, patent and engineering service fees as contract revenue.

When our agreements include both the delivery of licensing rights and technology and the provision of engineering services, we combine the total patent, license and engineering service fees to be paid under the agreement. These total fees are recognized ratably over the expected product development period, subject to the limitation that the cumulative revenue recognized through the end of any period may not exceed cumulative contract milestones achieved to date. We review assumptions regarding the product development period on a regular basis and make adjustments as required. We believe that this method represents the appropriate systematic method for revenue recognition for this type of contract.

After customers enter into agreements, they often engage us to provide additional engineering work that is beyond the scope of their original agreement. When customers request additional services, both parties agree to engineering fees that are based on the level of effort required. We recognize revenue from these agreements either as engineering services are performed or as milestones are achieved.

When we license and/or sell patents not in conjunction with an engineering development project, we recognize revenue upon delivery provided there are no significant post delivery obligations.



AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Royalty revenue.** Royalty revenue is generally recognized in the quarter in which a report is received from a customer detailing sales for which royalties are due, including shipments of products incorporating our intellectual property. This report is typically received in the quarter following sales of products by our customer. The terms of our agreements generally require customers to give notification to us and to pay royalties within 45 to 60 days of the end of the quarter during which sales of products take place.

**Income Taxes –** We compute deferred income taxes based on the differences between the financial statement and tax basis of assets and liabilities using enacted rates in effect in the years in which the differences are expected to reverse. We establish a valuation allowance to offset temporary deductible differences, net operating loss carryforwards and tax credits when it is more likely than not that the deferred tax assets will not be realized.

**Capitalization of Software Costs –** We capitalize certain internally generated software development costs after technological feasibility of the product has been established. No software costs were capitalized for the years ended December 31, 2008, 2007 and 2006, because such costs incurred subsequent to the establishment of technological feasibility, but prior to commercial availability, were immaterial.

**Research and Development Costs –** Costs incurred in the research and development of our products are expensed as incurred.

**Concentration of Credit Risk –** At December 31, 2008 and 2007, we had cash and investments, in excess of federally insured deposit limits of approximately \$45.4 million and \$38.4 million, respectively

Concentration of credit risk with respect to net accounts receivable consists of \$0.5 million, \$0.3 million, and \$0.2 million, with three customers, respectively, at December 31, 2008 and \$1.9 million, \$1.3 million, \$0.8 million, and \$0.5 million with four customers, respectively, at December 31, 2007.

**Stock-Based Compensation –** We grant stock options to our employees and directors. Such grants are for a fixed number of shares with an exercise price equal to the fair value of the shares at the date of grant. Effective January 1, 2006, we adopted the provisions of the Financial Accounting Standards Board (“FASB”) Statement of Financial Accounting Standards No. 123 (revised 2004), “Share-Based Payment,” (“SFAS 123(R)”), which establishes accounting for equity instruments exchanged for employee services. Under the provisions of SFAS 123(R), stock-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the employee’s requisite service period (generally the vesting period of the equity award). We use the Black-Scholes valuation model to estimate the fair value of service condition awards. This valuation model takes into account the exercise price of the award, as well as a variety of significant assumptions. These assumptions used to estimate the fair value of stock options include the expected term, the expected volatility of our stock over the expected term, the risk-free interest rate over the expected term, and our expected annual dividend yield. We recognize compensation costs on a straight-line basis over the requisite service period.

We also award unrestricted stock to our employees under the 2001 Plan. We record the fair value of such awards as stock-based compensation expense in accordance with the provisions of SFAS 123(R).

**Computation of Earnings per Share –** Basic earnings per share is computed by dividing income available to common shareholders by the weighted average number of common shares outstanding. Diluted earnings per share is computed by dividing income available to common shareholders by the weighted average number of common shares outstanding plus additional common shares that would have been outstanding if dilutive potential common shares had been issued. For the purposes of this calculation, stock options are considered common stock equivalents in periods in which they have a dilutive effect. Stock options that are antidilutive are excluded from the calculation.



AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Use of Estimates** – The preparation of our financial statements in conformity with generally accepted accounting principles requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Significant estimates include revenue recognition, reserves for doubtful accounts, reserves for excess and obsolete inventory, useful lives of fixed assets, valuation allowance for deferred income tax assets, and accrued liabilities. Actual results could differ from those estimates.

**Fair Value of Financial Instruments** – The carrying amounts of cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued expenses approximate fair value because of their short-term nature.

**Comprehensive Income** - Comprehensive income is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources, including foreign currency translation adjustments and unrealized gains and losses on marketable securities. For the years ended December 31, 2008, 2007, and 2006, comprehensive income was not materially different from net income.

**Advertising Costs** – Advertising costs are expensed as incurred and were not material for 2008, 2007, and 2006.

**Recent Accounting Pronouncements** – In September 2006, the FASB issued SFAS No. 157 ("SFAS 157"), "Fair Value Measurements," which defines fair value, establishes guidelines for measuring fair value and expands disclosures regarding fair value measurements. SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. SFAS 157 is effective for fiscal years beginning after November 15, 2007. However, on February 6, 2008, the FASB issued FSP FAS 157-b which defers the effective date of SFAS 157 for one year for nonfinancial assets and nonfinancial liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis. We adopted SFAS 157 on January 1, 2008, except as it applies to those nonfinancial assets and nonfinancial liabilities as noted in FSP FAS 157-b. The partial adoption of SFAS 157 did not have a material impact on our consolidated financial position, results of operations or cash flows. We are currently evaluating the impact of adopting FSP FAS 157-b.

In February 2007, the FASB issued Statement of Financial Accounting Standards No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities, including an amendment of FASB Statements No. 115" ("SFAS 159"). SFAS 159 permits entities to choose, at specified election dates, to measure eligible items at fair value (the "fair value option"). A business entity shall report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting period. This accounting standard is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. We adopted SFAS 159 on January 1, 2008. The adoption of SFAS 159 did not have a material impact on our consolidated financial position, results of operations or cash flows as we have not elected the fair value option for any of the financial assets and liabilities held during the year ended December 31, 2008.

In December 2007, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard ("SFAS") No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an amendment of ARB No. 51." SFAS 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. This accounting standard is effective for fiscal years beginning after December 15, 2008. As such, we are required to adopt these provisions on January 1, 2009. We are currently evaluating the impact of SFAS 160 on our consolidated financial statements, but we do not expect it to have a material impact.

In December 2007, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard ("SFAS") No. 141(R), "Business Combinations." SFAS 141(R) establishes principles and requirements for how the acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, an

any noncontrolling interest in the acquiree, recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase, and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. This accounting standard is effective for fiscal years beginning after December 15, 2008. SFAS 141(R) will be effective for us on January 1, 2009, and will be applied to any business combination with an acquisition date, as defined therein, that is subsequent to the effective date.

AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Reclassifications – Certain prior period amounts have been reclassified to be consistent with the current period presentation.

Segments – We organize ourselves as one segment reporting to the chief operating decision-maker. We have sales outside of the United States, which are described in Note 8. All long-lived assets are maintained in the United States.

### 3. INVENTORIES

Inventories consisted of the following at December 31 (in thousands):

	2008	2007
Raw materials	\$ 1,650	\$ 1,424
Finished goods	6	-
Total	\$ 1,656	\$ 1,424

### 4. PROPERTY AND EQUIPMENT

Property and equipment consisted of the following at December 31 (in thousands):

	2008	2007
Land	\$ 1,080	\$ 1,080
Building and improvements	8,869	8,854
Computer equipment	2,065	7,168
Purchased software	1,241	3,129
Furniture and fixtures	817	944
Office equipment	203	364
Manufacturing equipment	76	292
Total	14,351	21,831
Less accumulated depreciation and amortization	(6,888)	(13,959)
Property and equipment, net	\$ 7,463	\$ 7,872

Depreciation expense amounted to \$0.9 million, \$0.8 million, and \$0.6 million in each of the years ended December 31, 2008, 2007, and 2006, respectively. In 2008, we identified \$7.9 million of fully depreciated assets no longer in use, and retired the assets and related accumulated depreciation.

### 5. INCOME TAXES

Deferred tax assets are attributable to the following at December 31 (in thousands):

	2008	2007
Federal net operating loss carryforwards	\$ 15,679	\$ 15,662
Research and development and other tax credit carryforwards	17,208	16,744
State net operating loss carryforwards	660	704
Capitalized research and development costs	6,245	8,186
Other	2,689	1,529

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Total		42,481		42,825
Less valuation allowance		(42,481)		(42,825)
Deferred tax assets, net	\$	-	\$	-

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AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A reconciliation of the U.S. federal statutory rate to the effective tax rate is as follows:

	Year ended December 31,		
	2008	2007	2006
Federal statutory rate	34%	34%	34%
State rate, net of federal benefit	4	(16)	4
Foreign tax expense	-	-	27
Tax credits	(52)	(545)	(97)
Change in valuation allowance	12	504	43
Nondeductible compensation expense	3	31	16
Other	0	6	1
Effective tax rate	1%	14%	28%

At December 31, 2008, we had federal net operating loss ("NOL") and research and development credit carryforwards of approximately \$46.5 million and \$12.8 million respectively, expiring in 2009 through various dates up through 2029. In 2008, approximately \$784,000 of NOLs and \$70,000 of research and development credits expired unused. Based on an analysis that we performed under Internal Revenue Code Section 382 on our NOLs generated for the period 1997 through 2007, we have not experienced a change in ownership as defined by Section 382, and, therefore, the NOLs are not currently under any Section 382 limitation. We also have approximately \$1.5 million of additional federal NOLs and \$68,000 of additional research and development credits for the periods 1994 through 1995 that are currently being assessed under Section 382. Until we complete our review, these NOLs and research and development credits have not been included as a deferred tax asset and are not included in the balance noted above. If, upon completion of our review, these NOLs are included as a deferred tax asset, they will likely be subject to a full valuation allowance. All NOLs incurred prior to 1994 have expired unused.

For state purposes, we had state NOLs and research and development credit carryforwards of approximately \$11.4 million and \$6.6 million respectively, expiring in 2009 through various dates up to 2023. In 2008, approximately \$1.3 million of state NOLs expired unused.

Subsequent ownership changes, as defined in Section 382, could limit the amount of net operating loss carryforwards and research and development credits that can be utilized annually to offset future taxable income.

We recorded a full valuation allowance against our deferred tax assets because we determined that it was more likely than not that such deferred tax assets may not be realized. Our decision to reserve deferred tax assets was primarily due to a history of net operating losses incurred in recent years, and the uncertainty of the timing of future taxable income. If we generate sustained future taxable income against which these tax attributes may be applied, some portion or all of the valuation allowance would be reversed.

We did not record a provision for income taxes in 2008, 2007, and 2006 due to tax net operating losses and the uncertainty of the timing of profitability in future periods. However, in 2008 and 2007 we paid immaterial amounts of state excise taxes, and in 2006 we paid \$0.4 million of taxes to non-U.S. jurisdictions that assess a source withholding tax.

Deferred tax assets include cumulative deductions for stock options, in excess of book expense of \$63.1 million. None of the benefit related to these options has been reflected in equity. Therefore, the portion of the deferred tax asset valuation allowance related to the tax benefit of these options must be recorded to equity, when the tax benefit is realized. The estimated federal amount of this benefit is \$23.1 million, and the estimated state amount is \$2.0 for a total amount of \$25.1 million.





AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

We adopted the provisions of Financial Standards Accounting Board Interpretation No. 48 Accounting for Uncertainty in Income Taxes (“FIN 48”) an interpretation of FASB Statement No. 109 (“SFAS 109”) on January 1, 2007. As a result of the implementation of FIN 48, we recognized no material adjustment in the liability for unrecognized income tax benefits. At the adoption date of January 1, 2007 and also at December 31, 2008, we had no unrecognized tax benefits.

We recognize interest and penalties related to uncertain tax positions in income tax expense. As of December 31, 2008, we had no accrued interest or penalties related to uncertain tax positions.

## 6. EQUITY AND STOCK COMPENSATION PLANS

At December 31, 2008, we have three stock-based compensation plans, which are described below:

**Fixed Stock Option Plans** – We have two fixed option plans. Under the 1996 Stock Option Plan (“1996 Plan”), we may grant incentive stock options or nonqualified stock options to our employees and directors for up to 6,100,000 shares of common stock. Under the 2001 Nonqualified Stock Plan (“2001 Plan”), we may grant nonqualified stock options or stock awards to our employees and directors for up to 8,000,000 shares of common stock. Under both plans, options are granted at an exercise price as determined by the Board of Directors and have terms ranging from four to a maximum of ten years. Our options generally vest over three to five years, although we have granted options that are 50% or fully vested on the date of grant. As of December 31, 2008, there were 3,096,178 shares available for grant under the 2001 Plan, and no shares available under the 1996 Plan.

During 2007 and 2006, we awarded unrestricted stock to our employees under the 2001 Plan. In 2007 and 2006, a total of 20,744 and 65,464 net shares were distributed representing \$153,000 and \$367,000 of stock-based compensation expense, respectively.

The following table presents stock-based employee compensation expenses included in our consolidated statements of operations (in thousands):

	2008	2007	2006
Cost of product sales	\$ 11	\$ 13	\$ 15
Cost of contract revenue	135	176	149
Research and development	611	483	904
Selling and marketing	186	119	289
General and administrative	562	347	580
Stock-based compensation expense	\$ 1,505	\$ 1,138	\$ 1,937

We estimate the fair value of stock options using the Black-Scholes valuation model. This valuation model takes into account the exercise price of the award, as well as a variety of significant assumptions. These assumptions used to estimate the fair value of stock options include the expected term, the expected volatility of our stock over the expected term, the risk-free interest rate over the expected term, and our expected annual dividend yield. We believe that the valuation technique and the approach utilized to develop the underlying assumptions are appropriate in calculating the fair values of our stock options granted in the years ended December 31, 2008, 2007 and 2006. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by persons who receive equity awards.

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Assumptions used to determine the fair value of options granted during the years ended December 31, 2008, 2007 and 2006, using the Black-Scholes valuation model were:

	Year Ended December 31, 2008	Year Ended December 31, 2007	Year Ended December 31, 2006
Expected term(1)	6.70-7.16 years	6.25 years	3.25-6.25 years
Expected volatility factor(2)	51-54%	51-56%	60-67%
Risk-free interest rate(3)	2.17-3.16%	3.80-4.73%	4.55-4.99%
Expected annual dividend yield	—	—	—

AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

- (1) The expected term for each grant for the year ended December 31, 2008 was determined based on the historical average term of grants issued over the past five years. The expected term for each grant for the years ended December 31, 2007 and 2006 was determined as the midpoint between the vesting date and the end of the contractual term, also known as the “simplified method” for estimating the expected term described by Staff Accounting Bulletin No. 107 (“SAB 107”).
- (2) The expected volatility for each grant is estimated based on an average of historical volatility over a period of time which we believe to be representative of our future volatility.
- (3) The risk-free interest rate for each grant is based on the U.S. Treasury yield curve in effect at the time of grant for a period equal to the expected term of the stock option.

We do not estimate our forfeiture rates as the actual forfeiture rate is known at the end of each reporting period due to the timing of our stock option vesting.

A summary of the transactions of our two fixed stock option plans for the years ended December 31, 2008, 2007, and 2006 are presented below:

	2008		2007		2006	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year	6,974,705	\$ 4.84	6,489,812	\$ 4.80	6,284,606	\$ 4.73
Granted	1,093,200	3.57	737,000	4.79	697,000	5.24
Exercised	(136,158)	2.64	(197,853)	3.21	(293,394)	3.01
Forfeited or cancelled	(392,754)	5.13	(54,254)	5.87	(198,400)	6.66
Outstanding at end of year	7,538,993	\$ 4.68	6,974,705	\$ 4.84	6,489,812	\$ 4.80
Options exercisable at year end	6,059,397	\$ 4.80	5,809,280	\$ 4.80	5,688,735	\$ 4.72

All options granted during the years ended December 31, 2008, 2007 and 2006 had exercise prices equal to the fair market value of our common stock on the date of grant, and the weighted average grant date fair values of options granted were \$1.97, \$2.66, and \$2.85, respectively.

At December 31, 2008, the weighted average remaining contractual term for both options outstanding and options exercisable was approximately 6 years and 5 years, respectively.

At December 31, 2008, the aggregate intrinsic value of options outstanding and options exercisable was zero for both as each group of options was out-of-the money by approximately \$21.2 million and \$17.8 million, respectively. The intrinsic value of a stock option is the amount by which the market value of the underlying stock exceeds the exercise price of the option. The aggregate intrinsic value of options exercised during the year ended December 31, 2008 was approximately \$151,000.



AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes the stock options outstanding at December 31, 2008:

Exercise Price Range	Number	Options Outstanding		Options Exercisable	
		Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Number	Weighted Average Exercise Price
\$0 to \$3	799,036	\$2.89	5.65	793,408	\$2.90
\$3 to \$4	3,434,907	3.38	6.17	2,601,117	3.31
\$4 to \$5	443,650	4.64	8.82	150,787	4.67
\$5 to \$6	752,700	5.19	5.27	442,956	5.22
\$6 to \$7	1,976,950	6.11	5.22	1,939,379	6.11
\$7 to \$10	51,500	7.76	2.47	51,500	7.76
\$10 to \$63	80,250	36.74	0.81	80,250	36.74
	7,538,993	\$4.68	5.85	6,059,397	\$4.80

At December 31, 2008, unrecognized compensation expense related to non-vested stock options was approximately \$2.7 million, which is expected to be recognized over a weighted average period of 2 years.

We issue common stock from previously authorized but unissued shares to satisfy option exercises and purchases under our Employee Stock Purchase Plan.

**Employee Stock Purchase Plan** - In June 1996, we adopted an Employee Stock Purchase Plan (the "ESPP Plan") under which eligible employees could purchase common stock at a price equal to 85% of the lower of the fair market value of the common stock at the beginning or end of each six-month offering period. On November 29, 2005 we amended the ESPP Plan to provide that eligible employees may purchase common stock at a price equal to 95% of the fair market value of the common stock as of the end of each six-month offering period. There is no stock-based compensation expense related to our Employee Stock Purchase Plan because it is not considered a compensatory plan. The plan does not have a look-back feature, and has a minimal discount of 5% of the fair market value of the common stock as of the end of each six-month offering period. Participation in the ESPP Plan is limited to 6% of an employee's compensation, may be terminated at any time by the employee and automatically ends on termination of employment. A total of 350,000 shares of common stock have been reserved for issuance. As of December 31, 2008 there were 132,660 shares available for future issuance under the ESPP Plan. We issued 2,362, 2,465, and 2,320 common shares under the ESPP Plan in 2008, 2007, and 2006, respectively.

**Stockholder Rights Plan** - In October 2001, our board of directors adopted a stockholder rights plan and declared a dividend distribution of one share purchase right (a "Right") for each outstanding share of our common stock to stockholders of record at the close of business on October 15, 2001. Each share of common stock issued after that date also will carry with it one Right, subject to certain exceptions. Each Right, when it becomes exercisable, will entitle the record holder to purchase from us one ten-thousandth of a share of series A preferred stock at an exercise price of \$40.00 subject to adjustment.

The Rights become exercisable upon the earliest of the following dates: (i) the date on which we first publicly announce that a person or group has become an acquiring person, or (ii) the date, if any, that our board of directors may designate following the commencement of, or first public disclosure of an intent to commence, a tender or

exchange offer which could result in the potential buyer becoming a beneficial owner of 15% or more of our outstanding common stock. Under these circumstances, holders of Rights will be entitled to purchase, for the exercise price, the preferred stock equivalent of common stock having a market value of two times the exercise price. The Rights expire on October 2, 2011, and may be redeemed by us for \$.001 per Right.

AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

On September 6, 2007, our Board of Directors determined that it would be advisable to amend the Rights Agreement to exempt John B. Stafford, Jr., John S. Stafford, III, and James M. Stafford and their respective affiliates from the definition of “Acquiring Person” in the Rights Agreement. Accordingly, on September 6, 2007, we executed Amendment No.1 to the Rights Agreement with Computershare Trust Company, N.A. as successor rights agent to implement this amendment.

Share Repurchase Program - On August 28, 2007, we announced a stock repurchase program to purchase up to \$5.0 million of our common stock, subject to market conditions and other factors. Any purchases under our stock repurchase program may be made from time to time without prior notice. On October 29, 2008, we announced that the program had been amended to increase the total amount of common stock that may be repurchased from \$5.0 million to \$10.0 million and to extend the period of time that shares may be repurchased from December 31, 2008 to December 31, 2009. As of December 31, 2008, we had repurchased 721,131 shares of common stock at a total cost of \$2.4 million under this program.

## 7. COMMITMENTS AND CONTINGENT LIABILITIES

Lease Commitments – We own our principal office and research facility in Bedford, Massachusetts, which we have occupied since November 1997. We conduct a portion of our activities in a leased facility in California under a non-cancelable operating lease that expires in 2010. The following is a schedule of future minimum rental payments (in thousands):

Year ended December 31,		
2009	\$	13
2010		9
Total minimum lease payments	\$	22

Rental expense was approximately \$21,000, \$34,000, and \$26,000 in 2008, 2007 and 2006, respectively.

Litigation - There are no material pending legal proceedings to which we are a party or to which any of our properties are subject which, either individually or in the aggregate, are expected to have a material adverse effect on our business, financial position or results of operations.

Guarantees and Indemnification Obligations – We enter into agreements in the ordinary course of business that require us: i) to perform under the terms of the contracts, ii) to protect the confidentiality of our customers’ intellectual property, and iii) to indemnify customers, including indemnification against third party claims alleging infringement of intellectual property rights. We also have agreements with each of our directors and executive officers to indemnify such directors or executive officers, to the extent legally permissible, against all liabilities reasonably incurred in connection with any action in which such individual may be involved by reason of such individual being or having been a director or officer of the Company.

Given the nature of the above obligations and agreements, we are unable to make a reasonable estimate of the maximum potential amount that we could be required to pay. Historically, we have not made any significant payments on the above guarantees and indemnifications and no amount has been accrued in the accompanying consolidated financial statements with respect to these guarantees and indemnifications.

AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 8. BUSINESS SEGMENTS AND MAJOR CUSTOMERS

We manage the business as one segment and conduct our operations in the United States. We sell our products and technology to domestic and international customers. Revenues were generated from the following geographic regions (in thousands):

	Year ended December 31,		
	2008	2007	2006
United States	\$ 24,070	\$ 15,508	\$ 12,797
Germany	4,881	5,759	6,630
Rest of world	1,566	5,170	4,629
	\$ 30,517	\$ 26,437	\$ 24,056

The portion of total revenue that was derived from major customers was as follows:

	Year ended December 31,		
	2008	2007	2006
Customer A	28%	-	-
Customer B	12%	19%	26%
Customer C	10%	-	-
Customer D	4%	16%	2%
Customer E	1%	10%	1%
Customer F	-	-	20%

## 9. EMPLOYEE BENEFIT PLAN

In 1994, we established a qualified 401(k) Retirement Plan (the "Plan") under which employees are allowed to contribute certain percentages of their pay, up to the maximum allowed under Section 401(k) of the Internal Revenue Code. Our contributions to the Plan are at the discretion of the Board of Directors. Our contributions were approximately \$326,000, \$297,000, and \$316,000 in 2008, 2007 and 2006, respectively.

## 10. NET INCOME PER SHARE

Net income per share is calculated as follows (in thousands, except per share data):

	Year ended December 31,		
	2008	2007	2006
Net income	\$ 1,776	\$ 160	\$ 1,034
Weighted average common shares outstanding	23,638	23,738	23,474
Additional dilutive common stock equivalents	59	1,346	1,491
Diluted shares outstanding	23,697	25,084	24,965
Net income per share – basic	\$ 0.08	\$ 0.01	\$ 0.04



Net income per share – diluted	\$	0.07	\$	0.01	\$	0.04
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For the years ended December 31, 2008, 2007 and 2006, options to purchase 6,739,957, 2,471,025, and 2,423,242 shares of common stock at weighted average exercise prices of \$4.89, \$7.13, and \$7.18 per share, respectively, were outstanding, but were not included in the computation of diluted EPS because the options' exercise prices were greater than the average market price of the common shares and thus would be anti-dilutive.

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AWARE, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 11. QUARTERLY RESULTS OF OPERATIONS - UNAUDITED

The following table presents unaudited quarterly operating results for each of our quarters in the two-year period ended December 31, 2008 (in thousands, except per share data):

	2008 Quarters Ended			
	March 31	June 30	September 30	December 31
Revenue	\$ 5,876	\$ 6,167	\$ 6,390	\$ 12,084
Gross profit	4,034	4,414	4,497	10,803
Income (loss) from operations	(1,656)	(1,568)	(904)	4,757
Net income (loss)	(1,282)	(1,257)	(663)	4,978
Net income (loss) per share – basic	\$ (0.05)	\$ (0.05)	\$ (0.03)	\$ 0.21
Net income (loss) per share – diluted	\$ (0.05)	\$ (0.05)	\$ (0.03)	\$ 0.21
	2007 Quarters Ended			
	March 31	June 30	September 30	December 31
Revenue	\$ 5,800	\$ 6,429	\$ 7,456	\$ 6,753
Gross profit	3,952	3,329	5,002	4,732
Income (loss) from operations	(593)	(1,464)	529	(300)
Net income (loss)	(98)	(968)	1,034	193
Net income (loss) per share – basic	\$ 0.00	\$ (0.04)	\$ 0.04	\$ 0.01
Net income (loss) per share – diluted	\$ 0.00	\$ (0.04)	\$ 0.04	\$ 0.01

Quarterly amounts may not sum to annual amounts due to rounding and dilution.

## FINANCIAL STATEMENT SCHEDULE

Schedule II - Valuation and Qualifying Accounts – Years ended December 31, 2008, 2007, and 2006  
(in thousands)

Col. A	Col. B	Col. C(1)	Col. C(2)	Col. D	Col. E
	Balance at	Charged to	Charged	Deductions	Balance
	Beginning	Costs and	to Other	Charged to	at End
	of Period	Expenses	Accounts	Reserves	of Period
			Additions		
Allowance for doubtful accounts receivable:					
2008	\$ 55	\$ (25)	\$ -	\$ -	\$ 30
2007	\$ 97	\$ (20)	\$ -	\$ 22	\$ 55
2006	\$ 97	\$ -	\$ -	\$ -	\$ 97
Inventory reserves:					
2008	\$ 409	\$ 316	\$ 13	\$ -	\$ 738
2007	\$ 313	\$ 102	\$ -	\$ 6	\$ 409
2006	\$ 284	\$ 29	\$ -	\$ -	\$ 313
Warranty reserves:					
2008	\$ 0	\$ 118	\$ -	\$ -	\$ 118
2007	\$ 0	\$ -	\$ -	\$ -	\$ 0
2006	\$ 0	\$ -	\$ -	\$ -	\$ 0
Deferred tax asset valuation allowance:					
2008	\$ 42,825	\$ -	\$ (344)	\$ -	\$ 42,481
2007	\$ 43,772	\$ -	\$ (947)	\$ -	\$ 42,825
2006	\$ 42,977	\$ -	\$ 795	\$ -	\$ 43,772

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the Exchange Act). Based on this evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

Evaluation of Changes in Internal Control Over Financial Reporting

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we concluded that there were no changes in our internal control over financial reporting that occurred during the quarterly period ended December 31, 2008 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in Internal Control — Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2008.

The effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 of Form 10-K is incorporated by reference from the information contained in the sections captioned “Directors and Executive Officers”, “Corporate Governance” and “Section 16(a) Beneficial Ownership Reporting Compliance” in the Proxy Statement that will be delivered to our shareholders in connection with our May 20, 2009 Annual Meeting of Shareholders.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 of Form 10-K is incorporated by reference from the information contained in the section captioned “Executive Compensation” in the Proxy Statement that will be delivered to our shareholders in connection with our May 20, 2009 Annual Meeting of Shareholders.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Item 12 of Form 10-K is incorporated by reference from the information contained in the section captioned “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters” in the Proxy Statement that will be delivered to our shareholders in connection with our May 20, 2009 Annual Meeting of Shareholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information, if any, required by Item 13 of Form 10-K is incorporated by reference from the information contained in the sections captioned “Corporate Governance” and “Certain Relationships and Related Transactions” in the Proxy Statement that will be delivered to our shareholders in connection with our May 20, 2009 Annual Meeting of Shareholders.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 of Form 10-K is incorporated by reference from the information contained in the section captioned “Independent Accountants” in the Proxy Statement that will be delivered to our shareholders in connection with our May 20, 2009 Annual Meeting of Shareholders.

## PART IV

## ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The following documents are filed as part of this report:

## (a) Financial Statements and Exhibits:

	Page
(1) Report of Independent Registered Public Accounting Firm	35
Consolidated Balance Sheets as of December 31, 2008 and 2007	36
Consolidated Statements of Operations for each of the three years in the period ended December 31, 2008	37
Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2008	38
Consolidated Statements of Stockholders' Equity for each of the three years in the period ended December 31, 2008	39
Notes to Consolidated Financial Statements	40
(2) Schedule II - Valuation and Qualifying Accounts	53

## (3) Exhibits:

The exhibits listed below are filed with or incorporated by reference in this report.

Exhibit No.	Description of Exhibit
3.1	Amended and Restated Articles of Organization, as amended.
3.2	Amended and Restated By-Laws (filed as Exhibit 3.1 to the Company's Form 8-K filed with the Securities and Exchange Commission on December 10, 2007 and incorporated herein by reference).
4.1	Rights Agreement dated as of October 2, 2001 between Aware, Inc. and Equiserve Trust Company, N.A., as Rights Agent (filed as Exhibit 4(a) to the Company's Form 8-K filed with the Securities and Exchange Commission on October 3, 2001 and incorporated herein by reference).
4.2	Terms of Series A Participating Cumulative Preferred Stock of Aware, Inc. (attached as Exhibit A to the Rights Agreement filed as Exhibit 4.1 hereto).
4.3	Form of Right Certificate (attached as Exhibit B to the Rights Agreement filed as Exhibit 4.1 hereto).
4.4	Amendment No. 1 to Rights Agreement dated September 6, 2007 between Aware, Inc. and Computershare Trust Company, N.A., as Rights Agent (filed as Exhibit 4.1 to the Company's Form 8-K filed with the Securities and Exchange Commission on September 7, 2007 and incorporated herein by reference).
10.1*	1996 Stock Option Plan, as amended and restated (filed as Annex A to the Company's Definitive Proxy Statement filed with the Securities and Exchange Commission on April 11, 2000 and incorporated herein by reference).

- 10.2\* 1996 Employee Stock Purchase Plan, as amended and restated (filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 29, 2005 and incorporated herein by reference).
- 10.3\* Form of Director and Officer Indemnification Agreement (filed as Exhibit 10.4 to the Company's Form 10-K for the year ended December 31, 2002 and incorporated herein by reference).
- 10.4\* 2001 Nonqualified Stock Plan (filed as Exhibit 99(d)(4) to the Company's Schedule TO filed with the Securities and Exchange Commission on March 3, 2003 and incorporated herein by reference).
- 10.5\* Form of Nonqualified Stock Option Agreement under the 2001 Nonqualified Stock Plan for options granted to executive officers and directors prior to May 21, 2008 (filed as Exhibit 10.6 to Company's Form 10-K for the year ended December 31, 2006 and incorporated herein by reference).
- 10.6\* Form of Nonqualified Stock Option Agreement under the 2001 Nonqualified Stock Plan for options granted to executive officers and directors from and after May 21, 2008 (filed as Exhibit 10.8 to Company's Form 8-K on May 22, 2008 and incorporated herein by reference)

- 10.7\* Offer letter dated December 17, 2007 by and between Richard Moberg and Aware, Inc. (filed as Exhibit 99.2 to Company's Form 8-K filed with the Securities and Exchange Commission on December 18, 2007 and incorporated herein by reference).
- 10.8\* Consultant Agreement dated December 17, 2007 by and between Richard Moberg and Aware, Inc. (filed as Exhibit 99.3 to Company's Form 8-K filed with the Securities and Exchange Commission on December 18, 2007 and incorporated herein by reference).
- 21.1 Subsidiaries of Registrant.
- 23.1 Consent of Independent Registered Public Accounting Firm.
- 31.1 Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

\*Management contract or compensatory plan.



SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AWARE, INC.

By: /s/ Michael A. Tzannes  
Michael A. Tzannes, Chief Executive Officer

Date: February 13, 2009

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on the 13th day of February 2009.

Signature	Title
/s/ Michael A. Tzannes Michael A. Tzannes	Chief Executive Officer and Director (Principal Executive Officer)
/s/ Edmund C. Reiter Edmund C. Reiter	President and Director
/s/ Richard P. Moberg Richard P. Moberg	Chief Financial Officer (Principal Financial and Accounting Officer)
/s/ John K. Kerr John K. Kerr	Chairman of the Board of Directors
/s/ G. David Forney, Jr. G. David Forney, Jr.	Director
/s/ Adrian F. Kruse Adrian F. Kruse	Director
/s/ Mark G. McGrath Mark G. McGrath	Director
/s/ Charles K. Stewart Charles K. Stewart	Director

