NEWPORT CORP
Form 10-K
March 15, 2012
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-K

(Mark One)

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2011

OR

¨ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____

Commission File Number: 000-01649

NEWPORT CORPORATION

(Exact name of registrant as specified in its charter)

Nevada	**94-0849175**
(State or other jurisdiction of	**(IRS Employer**

incorporation or organization) **Identification No.)**

1791 Deere Avenue, Irvine, California 92606

(Address of principal executive offices) (Zip Code)

Registrant s telephone number, including area code: (949) 863-3144

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 $0.1167 per share	The NASDAQ Stock Market LLC

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 ¨ 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 Act. Yes ¨ 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 ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No ¨

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 the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨	Accelerated filer x
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company ¨

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

As of July 1, 2011, the last business day of the registrant s most recently completed fiscal quarter, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately $672.7 million, calculated based upon the closing price of the registrant s common stock as reported by the NASDAQ Global Select Market on such date.

As of February 29, 2012, 37,770,642 shares of the registrant s sole class of common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant s Proxy Statement for its 2012 Annual Meeting of Stockholders, which is expected to be held on May 15, 2012, are incorporated by reference into Part III of this Annual Report on Form 10-K. Only those portions of the Proxy Statement that are specifically incorporated by reference herein shall constitute a part of this Annual Report on Form 10-K.

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This Annual Report on Form 10-K contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this Annual Report on Form 10-K except for historical information may be deemed to be forward-looking statements. Without limiting the generality of the foregoing, words such as anticipate, believe, can, continue, could, estimate, expect, intend, may, plan, potential, predict, should, will, would, or the negative or other variations thereof or comparable terminology are intended to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.

The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to predict accurately and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Factors that may cause or contribute to such differences include, but are not limited to, those discussed in more detail in Item 1 (Business) and Item 1A (Risk Factors) of Part I and Item 7 (Management s Discussion and Analysis of Financial Condition and Results of Operations) of Part II of this Annual Report on Form 10-K. Readers should carefully review these risks, as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission. In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to place undue reliance on such forward-looking information. We undertake no obligation to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

PART I

ITEM 1. BUSINESS

General Description of Business

We are a global supplier of advanced technology products and systems to a wide range of industries, including scientific research, microelectronics, aerospace and defense/security, life and health sciences, and industrial markets. We provide a broad portfolio of products to customers in these end markets, allowing us to offer them an end-to-end resource for photonics solutions.

The demands of scientific and commercial applications for higher precision and miniaturization have caused photonics, the science and technology of generating and harnessing light in productive ways, to become an increasingly important enabling technology, permitting researchers and commercial users to perform tasks that cannot be accomplished by existing electrical, mechanical or chemical processes. In addition, in markets such as microelectronics and life and health sciences, photonics technology is replacing these current processes in a number of applications that it can accomplish faster, better or more economically.

We provide a wide range of photonics technology and products designed to enhance the capabilities and productivity of our customers precision applications, including:

- lasers and laser technology, including solid-state lasers, ultrafast lasers and laser systems, tunable lasers, and gas and dye lasers;
- optical components and subassemblies, including precision laser optics and opto-mechanical subassemblies, optics and lens assemblies for thermal imaging, thin-film optical filters, and ruled and holographic diffraction gratings;
- photonics instruments, systems and components, including optical power and energy meters, light sources, high-speed detectors and modulators, laser beam profilers, monochromators, spectroscopy instrumentation, laser diode controllers and drivers, and laser diode burn-in and life test systems;

high-precision positioning and vibration isolation products and systems;

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advanced automated manufacturing systems used in the manufacture of solar panels and communications and electronics devices; and

three dimensional non-contact measurement equipment.

In addition to our individual product offerings, we have significant expertise in integrating our products into systems and subsystems that are engineered to meet our customers specific application requirements. We believe that our ability to develop and manufacture integrated solutions, together with our broad portfolio of products and technologies, gives us a significant competitive advantage.

For over four decades, we have serviced the needs of research laboratories for precision equipment. We have acquired a number of companies, which has contributed to the expansion of our product offerings, technology base and geographic presence and has allowed us to evolve from a provider of discrete components and instruments primarily for research applications to a company that manufactures both components and integrated solutions for both research and commercial applications. Through our acquisitions and our own product development, we have built a family of industry-leading product brands including our ILX Lightwave®, New Focus , Newport , Ophir®, Optimet , Oriel® Instruments, Richardson Gratings , Spiricon®, and Spectra-Physics® brands.

Acquisitions

In July 2004, we acquired Spectra-Physics, Inc. and certain related photonics entities (collectively, Spectra-Physics). This acquisition significantly increased the scope of our expertise and product offerings in our target customer end markets, adding to our product portfolio solid-state, gas and dye lasers, high-power diode lasers, and ultrafast laser systems, as well as photonics instruments and components, including light sources, monochromators, spectroscopy instrumentation, optical filters, ruled and holographic diffraction gratings and crystals. This acquisition approximately doubled our size with respect to revenue, number of employees and facilities. At the time of the acquisition, we established Spectra-Physics laser and laser-related technology business as our Lasers Division, and we combined Spectra-Physics Corion filters, Hilger Crystals, Oriel Instruments and Richardson Gratings businesses with the existing businesses that comprised our former Industrial and Scientific Technologies Division to create our Photonics and Precision Technologies (PPT) Division.

In July 2009, we acquired the New Focus business of Oclaro, Inc. (Oclaro). The New Focus business expanded our product offerings to include a number of new high-performance products, including opto-electronics, high-resolution actuators, high-speed detectors and modulators, opto-mechanics, tunable lasers, and custom-engineered solutions designed for original equipment manufacturer (OEM) customers. At the time of the acquisition, the New Focus business became a part of our PPT Division.

In July 2011, we acquired High Q Technologies GmbH (High Q). This acquisition has broadened our ultrafast laser capabilities, particularly for applications in the life and health sciences and industrial markets, and has expanded our presence in European laser markets. High Q is now a part of our Lasers Division.

In October 2011, we acquired Ophir Optronics Ltd. (Ophir). This acquisition has significantly expanded our capabilities in infrared optics and photonics instrumentation, adding to our product offerings precision infrared optics and lens assemblies; laser measurement instrumentation, including laser beam profilers and laser power and energy meters and sensors; and three-dimensional non-contact measurement equipment. At the time of the acquisition, we established the Ophir businesses as our Ophir Division.

In January 2012, we acquired ILX Lightwave Corporation (ILX). This acquisition further expanded our photonics instrumentation and systems offerings, adding to our product portfolio ILX s diode laser controllers and drivers, temperature controllers, current sources, optical power and wavelength meters, semiconductor laser/LED burn-in, test and characterization systems, and fiber optic sources. ILX is now a part of our PPT Division.

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Divestitures

In 2009, in evaluating the performance and needs of our Lasers Division, we concluded that our high-power diode laser manufacturing operations in Tucson, Arizona were not well aligned with the focus and business model of our Lasers Division. Therefore, in July 2009, we sold these diode laser operations to Oclaro in conjunction with our acquisition of the New Focus business from Oclaro. In connection with the sale, we secured a supply arrangement with Oclaro to ensure the continued availability of diode lasers needed in the manufacture of certain of our laser products at competitive price levels.

In 2010, we concluded that our Hilger Crystals Limited subsidiary, which manufactured infrared, x-ray and gamma ray synthetic crystals, primarily for security applications, was not a strategic fit with our overall business. As a consequence, we sold all of the outstanding capital stock of Hilger Crystals Limited in July 2010.

We will continue to pursue acquisitions of companies, technologies and complementary product lines that we believe will further our strategic objectives. Conversely, from time to time, we review our different businesses to ensure that they are key to our strategic plans, and close or divest businesses that we determine are no longer of strategic importance. See Item 7 (Management s Discussion and Analysis of Financial Condition and Results of Operations Overview) beginning on page 39, and Note 2 of the Notes to Consolidated Financial Statements beginning on page F-15, of this Annual Report on Form 10-K for additional information.

Our Markets

We sell our products, subsystems and systems to OEM and end-user customers in markets and for applications that are enabled or enhanced by the use of photonics technology, including primarily:

Scientific Research. We are one of the world s leading suppliers of lasers and other photonics products to scientific researchers. For fifty years, we have worked closely with the research community to pioneer new applications and technologies. Today, we continue to help researchers extend the frontiers of science in a variety of research areas, including spectroscopy, ultrafast phenomena, terahertz imaging, laser-induced fluorescence, chemical analysis, materials science, light detection and ranging (LIDAR) and nonlinear optics.

Microelectronics. Photonics technology addresses a number of vital applications in the microelectronics market. It is a key enabler of the semiconductor industry roadmap driving smaller chip feature sizes with the increased functionalities needed for next-generation electronic products, including smartphones, tablet computers, e-readers, personal media players and digital cameras. It is also a key technology deployed in the manufacture of light emitting diodes (LEDs) to help increase brightness and reduce manufacturing costs. In addition, photonics technology enables the manufacture of solar panels with higher efficiency and at a lower cost per watt as that industry strives to make solar power more cost competitive. Our products are used in several key applications in the microelectronics market, including semiconductor lithography, wafer inspection and metrology, reticle inspection, memory yield enhancement, wafer dicing and scribing, wafer and component marking, resistor trimming, LED scribing, thin-film solar panel scribing and edge deletion, solar cell testing and characterization, and solar cell efficiency enhancement, as well as in printed circuit board and flat panel display manufacturing applications.

Life and Health Sciences. Photonics is increasingly becoming an enabling technology in the life and health sciences market. We provide products for diagnostic and analytical instrumentation, bioimaging and medical procedures. Our products are used in applications such as optical coherence tomography, multiphoton and confocal microscopy, flow cytometry, matrix-assisted laser desorption/ionization time-of-flight mass spectrometry, laser microdissection, DNA microarrays and blood analysis to enable advancements in the fields of molecular biology, proteomics and drug discovery. Our products are also used in medical applications, including precision laser surgery, dental CAD/CAM scanning and medical device manufacturing.

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Aerospace and Defense/Security. The drive for more technologically advanced weapons and surveillance techniques is producing increased investment in photonics-based technologies that can remotely, rapidly and non-invasively detect threats, improve intelligence gathering, provide secure communications systems and improve the performance of weapons and countermeasures. In addition, innovative optical sensors are augmenting human vision on the battlefield, providing remote sensing, ranging and observation capabilities that offer high-resolution imaging and night vision. Our infrared optics and lenses are used in a wide range of advanced applications in this market, including infrared observation systems, imaging systems for manned and unmanned aircraft, driver vision enhancement (DVE) systems and targeting systems. Our other photonics products are also used by aerospace and defense engineers to develop, assemble, test and calibrate equipment and, in some cases, are incorporated into weapon or sensor systems for applications including target recognition and acquisition, LIDAR, range finding, missile guidance, and advanced weapons development.

Industrial. Our lasers, infrared optics and other photonics products are used in applications across a wide range of industries, including precision manufacturing applications, automotive safety, image recording and telecommunications. The precision manufacturing applications served by our products include rapid prototyping, micromachining, heat-treating, welding and soldering, cutting, illumination, drilling and high-precision marking and engraving.

Our Operating Divisions

We operate our business in three divisions, our PPT Division, our Lasers Division and our Ophir Division, which are organized to support our primary product categories.

Photonics and Precision Technologies Division

Our PPT Division s products and systems are sold to end users in all of our target end markets. We also sell products and subassemblies to OEM customers that integrate them into their systems, particularly for microelectronics and life and health sciences applications. The products sold by this division include photonics instruments and systems, precision positioning systems and subsystems, vibration isolation systems and subsystems, optics, optical hardware, and opto-mechanical subassemblies. The addition of ILX broadens our product offerings in photonics instrumentation, particularly in the areas of semiconductor laser/LED instrumentation and burn-in, test and characterization systems. The PPT Division also offers automated systems for advanced applications in the manufacturing of solar panels and communications and electronic devices, including microwave, optical, radio frequency (RF) and multi-chip modules.

Our PPT Division also designs, develops and manufactures systems and subsystems that integrate our broad portfolio of products and technologies into solutions that meet the specific application requirements of our OEM and select end-user customers. With our expertise in the design, development and manufacture of these integrated solutions, we help our customers reduce time to market and enhance the performance of their equipment or products. We have established a business team comprised of technical and operations specialists, which collaborates across our divisions to develop and provide these integrated solutions to our customers. We have used our capabilities in this area for customers in a number of industries and applications, most notably in microelectronics applications such as semiconductor manufacturing and solar cell manufacturing, and in life and health sciences applications such as flow cytometry, DNA sequencing and bioimaging.

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Products

The following table summarizes our PPT Division s primary product offerings by product category, and includes representative applications for each category:

Category	Products	Representative Applications
Photonics Instruments and Systems	Electro-optic modulators	Atom trapping and cooling, including Bose-Einstein Condensates
	Laser diode controllers	Characterization of cosmetic and pharmaceutical products
	Laser diode burn-in and life-test systems	Characterization of light emitted by lasers, light emitting diodes and broadband light sources
	Light sources	Chemical composition analysis
	Monochromators and spectrographs	Colorimetry
	Optical power and energy detectors	Lifetime testing of laser diodes
	Optical power and energy meters	Optical power and energy measurement for free space and fiber-directed laser light
	Photonics test systems	Solar cell characterization and measurements
	Solar simulators	Spectroscopy
	Solar cell test instruments	Testing and characterization of optical fibers and passive fiber optical components
	Spectrometers	

	Tunable external cavity diode lasers	
	Ultrafast laser pulse measurement systems	
Vibration Isolation Systems and Subsystems	Active and passive isolation systems	Foundation platforms for laser systems
	Active vibration damping systems	Isolated platforms for semiconductor lithography equipment
	Elastomeric mounts	Reduction of impact of external vibration sources on high-precision research, manufacturing test and assembly systems
	Honeycomb and granite structures	
	Optical tables, support systems and accessories	Scanning electron microscope, atomic force microscope, and optical microscope base isolation
	Workstations	Workstation platforms for fiber optic device fabrication
		Workstation platforms for microscopy and other advanced imaging applications

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Category	Products	Representative Applications
Precision Positioning Devices, Systems and Subsystems	Custom multi-axis positioning systems	High-precision positioning for manufacturing and in-process inspection, metrology and final test applications
	Fast steering mirrors	High-precision positioning for thin-film solar cell manufacturing
	Fiber alignment stages and accessories	High-precision positioning of semiconductor wafers for metrology and fabrication
	Manual linear and rotation stages	Laser beam stabilization and pointing
	Micrometers and adjustment screws	Laser system alignment and beam steering for inspection, laser processing and communications
	Motion controllers and drivers	Precision alignment in fiber optic, telecommunication and laser device assembly
	Motorized linear and rotation stages	Sample or sensor manipulation for imaging and microscopy
	Motorized actuators and optical mounts	Sample sorting and sequencing for DNA research
	Nano-positioning and nano-focusing stages	Solar cell test and characterization
	Piezo motor actuators and stages	Tracking and targeting test systems for aerospace and defense/security applications
	Precision air-bearing motion systems	Analytical instrumentation for life and health sciences applications
Optics and Optical Hardware	Beam routing and enclosing systems	

Beamsplitters and polarization optics

Collimators

Filters and attenuators

Laser-to-fiber couplers

Lenses

Mirrors

Optical hardware including bases, brackets, posts and rod systems

Optical mounts

Prisms and windows

Ruled and holographic diffraction gratings

Thin-film filters and coatings

Ultrafast laser optics

Development and manufacturing of laser systems

Electro-optic sensors and imaging systems for defense/security applications

High-precision alignment of optical instruments

Optical measurement and communications systems

Research in physical and biological sciences

Semiconductor lithography, wafer and reticle inspection and wafer processing

Spectroscopy

Ultrafast laser, terahertz imaging and laser fusion research

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Category	Products	Representative Applications
Opto-Mechanical Subassemblies and Subsystems	Integrated electro-opto-mechanical subsystems	Analytical instrumentation for life and health sciences applications
	Laser beam attenuators	High-speed cell sorting for genomic research
	Laser beam delivery and imaging assemblies	Laser beam delivery systems for solar panel manufacturing
	Objective lens systems	Laser beam stabilization for industrial metrology
	Refractive beam shaper assemblies	Light detection and ranging
		Optical coherence tomography for non-invasive diagnostics
		Optical data storage
		Semiconductor mask patterning
		Semiconductor lithography, wafer and reticle inspection and wafer processing
		Thin-film measurement of semiconductor wafers
Advanced Manufacturing Systems	Automated electronic device packaging systems	Automated manufacturing and assembly of microelectronic and optoelectronic devices
	Automated die bonding and dispensing systems	Crystalline silicon solar cell module manufacturing

Automated, laser-based crystalline silicon solar cell efficiency enhancement systems	
	High-speed, high-accuracy automated dispensing applications for microwave modules, optical modules, hybrid circuits, multi-chip modules and semiconductor packaging
Automated, laser-based solar panel scribing and edge deletion systems	
	Thin-film solar panel manufacturing

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Lasers Division

Our Lasers Division, which was formed in July 2004 in connection with our acquisition of Spectra-Physics, offers a broad portfolio of laser technology products and services to OEM and end-user customers in all of our target end markets. Our lasers and laser-based systems include ultrafast lasers and amplifiers, diode-pumped solid-state lasers, high-energy pulsed lasers, tunable lasers and gas lasers. In addition to providing a wide range of standard and configured laser products and accessories to our end-user customers, we also work closely with our OEM customers to develop laser and laser system designs optimized for their product and technology roadmaps. The addition of High Q Laser broadens our Lasers Division s ultrafast laser products and capabilities, particularly for applications in the life and health sciences and microelectronics markets.

Products

The following table summarizes our primary laser and laser-based system product offerings by product category, and includes representative applications for each category:

Category	Products	Representative Applications
Ultrafast Lasers and Systems	InSight DeepSee tunable ultafast lasers	Femtosecond spectroscopy
	Spirit high repetition rate ultrafast amplifiers	Micro-machining and other high-precision materials processing applications
	Mai Tai® and Mai Tai DeepSee tunable ultrafast lasers	Multiphoton microscopy
	Tsunami® ultrafast lasers	Supercontinuum and high harmonic generation
	Spitfire® Ace ultrafast amplifiers	Terahertz imaging
	Solstice® one-box ultrafast amplifiers	Time-resolved photoluminescence
	Inspire femtosecond optical parametric oscillators (OPOs)	Two-photon polymerization
	TOPAS Prime automated ultrafast optical parametric amplifiers (OPAs)	Ultrafast laser surgery

femtoRegen ultra compact all-in-one femtosecond regenerative amplifier systems

femtoTrain ultra compact femtosecond oscillators

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Category	Products	Representative Applications
Diode-Pumped Solid State Q-Switched Lasers	Mosaic® all-in-one lasers	Diamond processing
	Tristar high repetition rate UV lasers	Disk texturing
	Navigator lasers	Electronics and semiconductor packaging manufacturing
	HIPPO mid-power lasers	Flat panel display manufacturing
	Pulseo® high power lasers	Laser microdissection
	Explorer® compact lasers	LED wafer scribing
	Explorer XP all-in-one compact lasers	Matrix-assisted laser desorption/ionization
	Empower® high pulse energy lasers	Memory yield enhancement systems
		Printed circuit board (PCB) manufacturing
		Pump source for ultrafast lasers
		Rapid prototyping
		Resistor trimming

		Semiconductor wafer and flat panel display marking
		Silicon micromachining
		Solar cell manufacturing
		Stereolithography
Diode-Pumped Solid State Continuous Wave (CW) and Quasi-CW Lasers	Millennia® Prime and Millennia Edge CW green lasers	Confocal microscopy
	MG series CW green lasers	DNA sequencing
	Excelsior low power CW lasers	Flow cytometry
	Vanguard quasi-CW lasers	Image recording
	3900S and Matisse® CW tunable lasers	Laser cooling
	Cyan compact low power CW lasers	Materials processing
		Optical trapping
		Raman imaging
		Semiconductor wafer inspection and metrology
		Solar cell manufacturing

Ti:Sapphire laser pumping

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Category	Products	Representative Applications
High Energy Pulsed Nd:YAG and Tunable Lasers	Quanta-Ray® pulsed Nd:YAG lasers	Flat-panel display manufacturing
	Scan Series high energy optical parametric oscillators (OPOs)	Laser ablation
	Precision Scan, Cobra Stretch and Cobra tunable dye lasers	Laser cleaning
	Credo high-repetition rate dye lasers	LIDAR
		Mass spectrometry
		Particle imaging velocimetry combustion diagnostics
		Plastic and ceramic component marking
		Remote sensing
		Spectroscopy
Gas Lasers	Air-cooled argon ion lasers	Lithography
	Helium-Neon lasers	Semiconductor wafer inspection

Ophir Division

Our Ophir Division, which was formed in October 2011 in connection with our acquisition of Ophir Optronics Ltd., offers precision infrared optics and lens assemblies, laser measurement instrumentation and three-dimensional non-contact measurement equipment to OEM and end-user customers in all of our target end markets. This division designs and produces a full range of high performance infrared optics and opto-mechanical lens assemblies and components for aerospace and defense/security and commercial applications. Our Ophir Division also offers a complete line of laser instrumentation, including laser power and energy meters and laser beam profilers, for applications in the industrial, life and health sciences and scientific research markets. This division also manufactures and supplies three-dimensional non-contact measurement systems and sensors that are used for in-process inspection, quality control and reverse engineering in the industrial, microelectronics and life and health sciences markets, particularly for digital dentistry applications.

Products

The following table summarizes our Ophir Division s product offerings by product category, and includes representative applications for each category:

Category	Products	Representative Applications
Optics	Optical lens assemblies and elements for cooled infrared cameras	Thermal imaging and observation systems
	Optical lens assemblies and elements for uncooled infrared cameras	Targeting and fire control systems
	Optical lenses for infrared radiometric/thermograph systems	Automotive safety systems
	Infrared optics	CO2 laser cutting, drilling and welding systems
	CO2 laser optics	

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Category	Products	Representative Applications
Photonics Instruments		