Vol.4 No.2

# Lasers, Optics and Photonics Industry Outlook-Market Analysis

## Claudio Verzegnassi

Researcher, Department of Polytechnic of Engineering and Architecture, University of Udine, Italy, E-mail: claudioverzegnassi41@gmail.com

The world photonics market was valued at over USD 600 billion in 2015. The industry is expected to witness a tremendous boom over the forecast period owing to photonics' vast range of purposes in the domains of medical sciences, jewellery, security, automotive, lighting, manufacturing, and facts technology.

The development of optics has reached its zenith with extraordinarily advanced cutting-edge lasers step by step changing typical electric bulbs and primitive lamps. Advancements in optics have made speedy strides in the photonic-based subject in the past few years and are further broadening the technological horizons. Innovative photonic-enabled related offerings and products are anticipated to be introduced and are expected to have high-quality influences on organizational as properly as patron activities. The emergence of flat display displays and the increasing use of the photonicenabled high-speed web have significantly changed the dynamics of the market. Photonics is a Key Enabling Technology (KET) inside the Information and Communications and Technology (ICT) vertical owing to its benefits and excessive economic growth across more than a few industries.

#### **Market Analysis**

Global "Semiconductor Laser Market" 2019 lookup reports offers data involving market size, share, trends, growth, price structure, capacity, income and forecast 2024. This record also includes the general and comprehensive learn about of the Semiconductor Laser Market with all its factors influencing the boom of the market. This report is exhaustive quantitative analyses of the Semiconductor Laser industry and presents facts for making techniques to enlarge market boom and effectiveness.

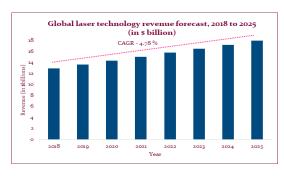
On the research of product, this document shows the production, revenue, price, market share, and increase charge of each type, primarily cut up into

- Blue Laser
- Red Laser
- Infrared Laser

The world fiber optics market is expected to grow at a CAGR of 8% in the course of 2019-2024. Fiber optics is the science used for transmitting images, voice and information thru skinny and transparent fiber strands. These fiber strands are recognized as optic fibers that are made of glass or plastic. At present, the technological know-how finds sizeable functions in the healthcare and telecommunication industries. It is additionally utilized in

the army and protection region for car navigation, environmental sensing and monitoring, and transmitting radio signals.

The increasing demand for web offerings is the key thing riding the market. Owing to the hastily growing digitallyliterate population, the demand for excessive bandwidth communication and data transmission services is on the rise, which has led to the steady boom in the telecommunications and statistics technology sector. This has subsequently accelerated the demand for fiber optics as it is integral for correctly transmitting data, voice messages and pix over sizable distances. Furthermore, innovations such as 5G network, Fiber to the Home (FTTH) and Fiber to the Building (FTTB) have amplified the positioning of broadband network systems, which furnish high-speed facts and related services to the consumers. Moreover, fiber optic internet is regarded greater dependable and less susceptible to breakdown at some stage in electricity outages as the fibers are made of glass and do now not require electricity to function. In the healthcare industry, this science has extensive software in the subject of imaging, wherein X-ray, surgical endoscopy and microscopy, ophthalmic lasers and light therapy are some of the key medical approaches that use fiber optics. The developing demand for minimally invasive surgical procedures is every other indispensable issue using their demand in this industry.





Vol.4 No.2

# LIST OF ELECTRICAL AND ELECTRONICS ENGINEERING COMPANIES

### **USA Electrical and Electronics Engineering companies:**

The Boeing Company, Lockheed Martin
Corporation, International Business Machines Corporation
(IBM), Google, General Electric, Shell Oil Company, 10
Angstroms, 3D Systems, 3DIcon, 3DM, 4Wave, A & A
Company, Abeam Technologies, Accelergy, Accium, ACS
Material Aculon, ADA Technologies, Advance
Reproductions, Advanced Ceramic Materials, Advanced
Diamond Technologies, Advanced Energy Industries,
Advanced Micro Devices (AMD), Advanced Nano-Coatings,
Advanced Optical Technologies, Advanced Research
Systems, Advanced Surface Microscopy, AdvanceTEC,
Advano, Advenira Enterprises, Advion BioSciences, AEgis
Technologies Group, Aerotech, Affymetrix

### **Europe Electrical and Electronics Engineering companies:**

Adept Power Solutions, Alpine Europe, Altana AG, Andantex Ltd-, Ariston Thermo, aSpect Systems, Austria Microsystems, Autonumis Ltd-, Axis Electronics, B&B Electronics Europe-, Backer, Blakley Electrics Ltd., Casio, Applied Nanolayers, Aquamarijn Micro Filtration, ASM International, ASML, Avantes, Avantium, Catena, ChemConnection, CPS Instruments Europe, DELMIC, DENSsolutions, DSM Somos, GraphenTech, HQ Graphene, IME Technologies, Kriya Materials, Lenntech Water Treatment & Air Purification, Malsch TechnoValuation, Malvern Panalytical, Micronit, MS MacroSystem, Nanosens, NXP, SACHEM, SmartTip, VSParticle

# **Electrical and Electronics Engineering Companies in Asia:**

Mitsubishi Electric India Pvt. Ltd, Asian Electronics Limited, Havells India Ltd, Aar em Electronics, Bajaj Electronics, Changhong, Haierfirsthead, Huawei, Panda Electronics, Xiaomi, NOF Corporation, Showa Denko, Osaka, Taisei Kogyo, Digit Link, GOBIZ Korea, BMVIT, Ait, Nanotech Enterprise, SSV, KSU, Nano YO, CURIOX Accelerating Life Sciences, LIWEI Nano, Micron, ATIP, F-Carbon, Fuji Xerox, Marubeni, COMTECH Advanced, Amphenol, Alpha Casting, HSRE Work, ICAM, Precision Type, Bugatti, AIXAM, SBEC, Atkins Group, Pacific Coast, FM Global, ISAT, CANDC Infrastructure, PROTECK Coating, TE Connectivity, Salzgitter Ag, Atlas COPCO, UPM, Novo Nordisk Merck Group, Vedanta Resources, Ingersoll Rand, STORA Enso, Syngenta, Nanomaterial's Technology, Integration Point, Green Prophet, Proactive Investors, Innovation KAUST, Molecular Rubber Design, Society Of Petroleum Engineers, Knights Security, Nanotech, United Plastic Curtiss-Wright

### **Electrical and Electronics companies in Middle East:**

Emerson, Siemens, ABB, Panasonic, LIN SCAN, Eaton, HTC, Philips Lighting, Invensys, Salzgitter Ag, Atlas COPCO, UPM, Novo Nordisk Merck Group, Vedanta Resources, Ingersoll Rand, STORA Enso, Syngenta, Nanomaterial's Technology

Integration Point, Green Prophet, Proactive Investors, Innovation KAUST, Molecular Rubber Design, Society of Petroleum Engineers, Knights Security, Nanotech, United Plastic Curtiss-Wright

### **Electrical and Electronics companies in South Africa:**

SamHwa Co., Ltd., Semigo, POWERTRACK, Metquip (Pty) Ltd, African Pipes Valves & Fittings, APVF, MJL Communications cc, Vintage Floors, Santec Energy and Dewatering Services cc, Generator Warehouse cc, Afritek (Pty) Ltd, Yale Engineering Projects (Pty) Ltd, Adriatic Power Cape Town cc, PFK Electronics (Pty) Ltd, On Demand Facilities Management (Pty) Ltd, Xtreme Cameras (Pty) Ltd, Secure Time Technology cc, Enervision (Pty) Ltd, Volkspares cc, A2M Trading, Impact Instruments cc, MCB Marketing and Engineering CC, Absolute Power Africa (Pty) Ltd, Absolute Power Africa (Pty) Ltd

### Electrical and Electronics companies in Australia:

A.G. Healing, ADInstruments, Amalgamated Wireless (Australasia), Blackmagic Design, CEA Technologies, Clarinox Technologies Pty Ltd, Codan, Crossecom, Dog & Bone, Dynalite, EM Solutions, PowerLab, Q-MAC Electronics, Radio Rentals, Redarc Electronics, Right Hemisphere (company), Robotron Group, Strong Australia, Telectronics, Vix Technology, Winradio

# LIST OF ELETRICAL AND ELECTRONICS ENGINEERING UNIVERSITIES

### **Electrical and Electronics USA Universities:**

Massachusetts Institute of Technology, Stanford University, University of California—Berkeley, California Institute of Technology, University of Illinois—Urbana-Champaign, Georgia Institute of Technology, University of Michigan—Ann Arbor, Carnegie Mellon University (CMU), Pittsburgh, PA, Cornell University, Purdue University, University of Texas—Austin (Cockrell), Princeton University, University of California—Los Angeles (Samueli) (UCLA), University of Southern California (Viterbi) (USC, University of California

### **Electrical and Electronics Europe universities:**

University of Cambridge, University of Oxford, Imperial College London, ETH Zurich, École Polytechnique fédérale de Lausanne, KTH Royal Institute of Technology, TU Delft, MIP Milano, TU Munich, Aalborg University (AAU), University of Glasgow, University of Strathclyde, University of Southampton, The University of Nottingham, Loughborough University, Cardiff University, Ulster University

# **Electrical and Electronics Middle East universities:**

King Abdulaziz University, Khalifa University, Alfaisal University, Jordan University of Science and Technology, Jordan University of Science and Technology, Qatar University, American University of Beirut, King Saud bin Abdulaziz University for Health Sciences, King Saud University, Lebanese American University, Suez Canal University, King Fahd University of Petroleum and

# **Journal of Medical Physics and Applied Sciences**

Vol.4 No.2

Minerals, Beni-Suef University, Mansoura University, Kafrelsheikh University, American University in Cairo, Benha University, University of Béjaïa, American University of Sharjah, Tanta University, University of Sharjah, Sohag University, Cairo University, Kuwait University, University of Baghdad

### **Electrical and Electronics South Africa universities:**

North-West University, University of Pretoria, Rhodes University, Stellenbosch University, University of the Witwatersrand, University of the Western Cape, University of Cape Town, University of Fort Hare, University of KwaZulu-Natal, University of the Free State, University of Pretoria

#### **Electrical and Electronics Australia universities:**

The University of Melbourne, the Australian National University, the University of New South Wales, the University of Sydney, Monash University RMIT University, RMIT University, the University of Queensland, Queensland University of Technology (QUT), the University of Adelaide, the University of Western Australia,

### **EEE-Journals:**

Advanced Materials for Optics and Electronics, Advances in Theoretical and Mathematical Physics, Central European Journal of Physics, Chinese Journal of Physics (Taipei), Condensed Matter Physics, Brazilian Journal of Physics, Electronic Journal of Theoretical Physics, European Physical Journal - EPJ direct, High Energy Physics Libraries Webzine, Indonesian Journal of Physics, International Journal of Fluid Dynamics, Japanese Journal of Applied Physics, Journal of Applied Clinical Medical Physics, Journal of High Energy Physics (JHEP), Journal of Physical Studies, Journal of the Physical Society of Japan

# **EEE-Associations:**

London Materials Society, Materials Research Society (MRS), Institute of Materials or IMX, Swiss Federal Institute of Technology, The Interuniversity Microelectronics Centre or IMEC, Natural Materials Association, UK industry organizations & trade associations, Association of Industrial Laser Users (AILU), Springett Associates

### **EEE-Societies:**

IEEE (Institution of Electrical and Electronics Engineers), IET (Institution of Engineering and Technology), (SPIE) International Society for Optics and Photonics, ACM (Association for Computing Machinery), AES (Audio Engineering Society), EPRI (Electric Power Research Institute), Canadian Nuclear Society, Canadian Society for Civil Engineering, Canadian Society for Chemical Engineering, Professional Engineers Ontario, Engineering Society of Queen's University, UOIT Engineering Students' Society, Lassonde Engineering Society, Alpha Omega Epsilon, Alpha Pi Mu, American Academy of Environmental Engineers