

## ElectroniCast Executive White Paper



### **Free Space Optics (Optical Wireless) Global Market Forecast and Analysis 2011-2017**

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#### *Market Analysis of Free Space Optics Used in Non-Military/Aerospace Applications*

Free Space Optics (FSO) is a line-of-sight (LOS) technology that uses directed laser beams, which provide optical bandwidth Transmitters and Receivers to link voice, video, and data intelligent transfer. A single FSO link product (from point A to point B) often may incorporate multiple transmitters along with receiver/s to ensure adequate performance, in case of interference.

This ElectroniCast Executive White Paper provides an analysis and market consumption forecast of transmitter/receiver links used in non-military/aerospace stationary free space optical communication links. This report does not include all of the other parts that compose of the entire FSO system equipment, such as the mounting brackets, mux/demux, drivers, switches, amplifiers, wire/connectors, installation/service, etc.

The 2011-2017 forecast is presented for FSO Transmitter/Receiver link devices, segmented by distance and data-rate throughput, as detailed in Table 1. The forecast for each selected FSO link device, in turn, is segmented by geographic region:

- The Americas (North America, Central and South America)
- EMEA (Europe, Middle Eastern countries, plus Africa)
- APAC (Asia Pacific)

The market forecast data are segmented by the following functions:

- Consumption Value (US\$, million)
- Quantity (number/units)
- Average Selling Prices (ASP \$, each)

**Table 1**  
**Market Data Category List by Distance/Meters and by Data-Rate**

|   |
|---|
| <p><b>500 Meters or Less</b><br/><b>156 Mbps or Lower</b><br/><b>Higher Than 156 Mbps</b></p> <p><b>More Than 500 Meters</b><br/><b>156 Mbps or Lower</b><br/><b>Higher Than 156 Mbps</b></p> |
|---|

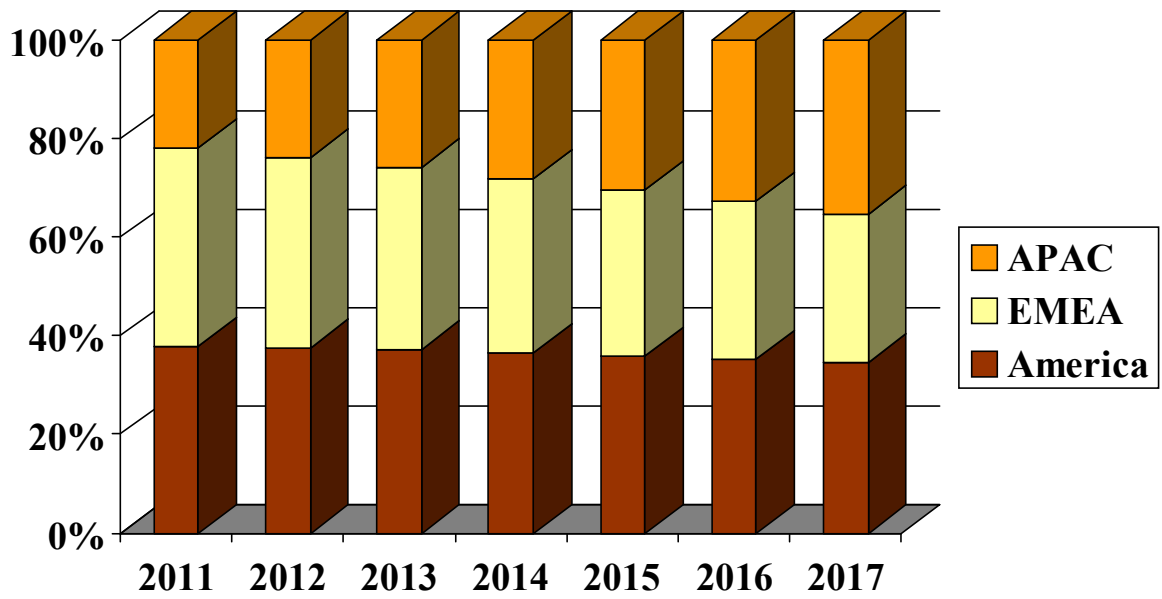
**Free Space Optics: Market Forecast by Region** According to ElectroniCast, the worldwide consumption value of FSO Transmitter/Receiver Link Devices used in stationary non-military/ aerospace applications was \$26.47 million in year 2011. EMEA held a slight lead in terms of relative market share in 2011; however, the American region is forecast to grab the lead next year (2013).

The increase in the consumption of FSO links in the America region will be attributed to not only continued upgrades and network facilitation in the United States and Canada, but also from the accelerating economic growth of major cities in Latin America. Other market dynamics in the American region are increases in communication links needed for growing infrastructures, such as mass transit, security systems, broadcast (TV) and telecommunications.

European inner-city urban areas typically are relatively difficult for wire-lines, including optical fiber cable installations; therefore, this fact promotes FSO or other wireless solutions.

The APAC region has advanced communication technology deployed especially in Japan; however, other countries, such as Australia, China and India, are not as advanced in campus-wide and metropolitan optical communication deployment. The APAC region has rapidly expanding market opportunities and therefore, our forecast shows the region with the fastest growth (2011-2017).

### FSO Global Consumption Value Market Share (%), By Region



Source: ElectroniCast Consultants

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