

ElectroniCast Consultants**FIBER OPTIC COLLIMATOR LENS ASSEMBLIES
GLOBAL MARKET FORECAST (2010-2015)**

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This is the ElectroniCast Global Forecast of consumption forecast of collimating lens assemblies in commercial optical communication passive and active/integrated (hybrid) components. The years of coverage, in this report, are: 2010-2015. This report provides the collimator market forecasts in terms of Quantity (number of units), Average Selling Prices (ASPs) per unit and Consumption Values.

Collimator lenses (and lens assemblies) are used in a variety of photonic products; however this report presents the use of micro-sized collimator lens assemblies, which are used specifically in optical communication components, such as some of the following:

- Modulators
- Attenuators
- Transmitter
- Pump laser modules
- Photonic Switch/Optical Cross Connects
- Wavelength Selective Switch, ROADMs
- Isolators
- Interleavers
- Circulators
- Expanded-beam connector assemblies
- Optical filter modules, DWDM, Tunable Filters
- Optical sensors
- Optical signal processing
- Integrated/hybrid packaged modules
- Other active and passive components

The Fiber Optics industry is in a growth mode. We are now seeing the expansion, such "Green-Field" (new-builds), and DWDM use and the continuance of the "lighting-up" of "dark fiber". The fiber optics industry is now observing an impressive increase in the consumption of the optical elements and components that facilitate a strong environment for the use of collimator lenses (and lens assemblies).

Most of this activity is driven by the expansion of fiber optic transport and access networks, mainly in telecommunications. The private data communication, cable TV, as well as the specialty and instrumentation market segments, also will drive the market of lenses used for collimating the optical signal (light).

Fiber optic collimators have been used in conjunction with optical isolators, optical circulators and any other passive or active optical function, which requires converting divergent beams of radiation or particles, such as light rays, into parallel beams. Fiber collimators are widely used in a variety of optical applications, as noted previously.

Commercially available fiber collimator arrays have typically implemented separate lenses, which has increased the cost of the array. For example, one commercially available collimator array has utilized a V-groove array substrate with individually aligned graded-index (GRIN) micro-lens and fibers in each V-groove.

Planar micro-lens arrays are one or two-dimensional (2-D) lens arrays formed on a substrate and may include numerous microscopic lenses in various sizes and patterns. Commercially available PMLAs are usually graded-index (GRIN), aspheric or Fresnel lenses.

The consumption value of collimator lens in 2010 was led by their use in passive optical components, such as couplers, filters, isolators, circulator, certain types of connectors, switch elements and numerous others, even “hybrid” components, which incorporate two or more components in one package. Also, several miscellaneous active and integrated (hybrid) components with multiple (two or more) functions, even passive and active combined in the same package are increasing in consumption value.

During the forecast period, bandwidth expansion demands will push for new network links, incorporating Metro/Access, Long Haul, WDM, OADM and other system-based deployments.

For this multi-client Fiber Optic Collimator Market Forecast study, ElectroniCast is segmenting the collimator lens assemblies as listed below:

Stand-Alone Fiber Optic Collimator Lenses
Fiber Optic Collimator Lens Assemblies
Single (1- Lens)
Array Assemblies
2-12 Lens
More Than (>) 12 Lens

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