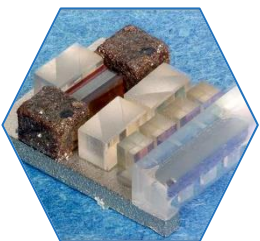
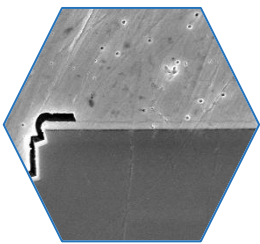


II-VI/Finisar 100Gb CWDM4 Optical Transceiver

Deep analysis of FTLC1157RGPL-TE, the 100Gb CWDM4 optical transceiver from the US leading supplier.



Title: II-VI/Finisar 100Gb CWDM4 optical transceiver FTLC1157RGPL-TE

Pages: 215

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Format: PDF & Excel file

Price: EUR 3,990

Reference: SPR21615

This full reverse costing study has been conducted to provide technology data, manufacturing cost and the selling price of the Finisar's FTLC1157RGPL-TE 100Gb CWDM4 transceiver. Finisar's 100G CWDM4 100G optical transceiver allows communication up to 2km. The Finisar solution is based on the Maxim MAX24025IMP and the Semtech GN2110.

The transceivers come with two separated lines, each with several dies. The transmitter integrates four InP lasers driven by the Maxim dies. Other components are added to the system in order to focus or isolate the signals. It uses InP Distributed FeedBack (DFB) lasers. The multiplexer is based on several narrow bandpass filters to create the spatial multiplexer. The connector assembly is complex, with all the optical parts of the multiplexer.

The receiver function is performed by InP photodiode die, a TransImpedance Amplifier (TIA) and Clock and Data Recover (CDR) function circuit. A fiber optical coupler and Arrayed Waveguide Grating (AWG) demultiplexer are used to connect the photodiode die with the fiber optic.

This report contains an exhaustive analysis of the Finisar's 100G CWDM4

optical transceiver. It includes a full analysis of the laser dies, photodiode dies, the TIA-CDR circuit, a cost analysis and price estimate. Scanning Electron Microscope (SEM) pictures, cross-sections, Energy Dispersive X-ray (EDX analysis) have been used to identify the different materials used in manufacturing and to show all the technical characteristics of the main component of the optical transceiver. The report presents details also on the optical parts and the assembly line. Finally, the report presents a calculation of the cost of assembly of the electronic and the optical parts and an estimation of selling price.

COMPLETE TEARDOWN WITH

- Explanation of device operation
- Detailed optical and SEM photos
- Precise measurements
- Materials analysis
- Manufacturing process flow
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- Estimated sales price

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AUTHORS



Sylvain Hallereau has been Project Manager at System Plus Consulting since 2000. He is in charge of costing analyses for Integrated Circuits, Power semiconductors and LEDs. He has significant experience in the modeling of manufacturing costs for electronics components, Sylvain holds a Master degree in Microelectronics from the University of Nantes, France.



Dr. Youssef El Gmili has joined System Plus Consulting's team in 2019 after ten years passed on high level research and development on microelectronics. He has a deep knowledge in the study and analysis of semiconductors Materials. He holds a Master Degree in Microelectronics, and a Phd in Physics/Materials Science.

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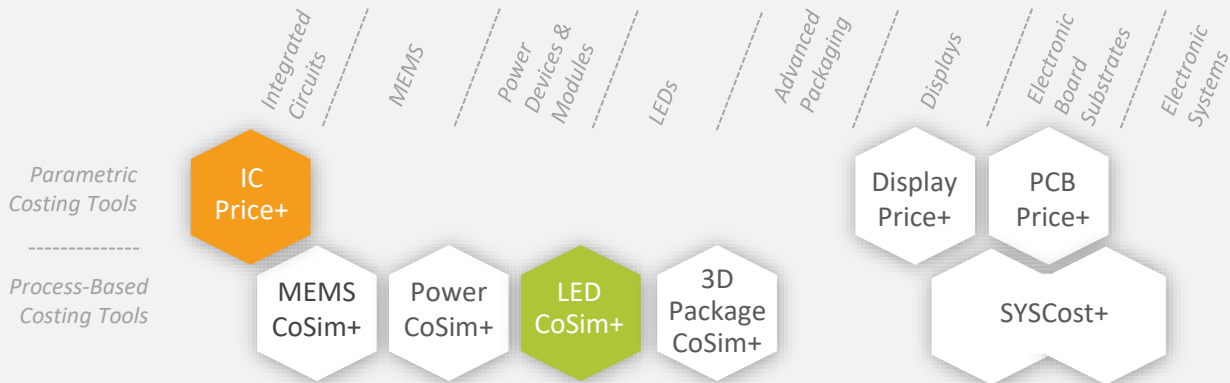
Deep analysis of the world's 1st 100G CWDM silicon photonic transceiver, covering new technologies & main differences from the Intel 100G PSM4.
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WHAT IS A REVERSE COSTING®?

Reverse Costing® is the process of disassembling a device (or a system) in order to identify its technology and calculate its manufacturing cost, using in-house models and tools.



CONTACTS

Headquarters
22, bd Benoni Goullin
Nantes Biotech
44200 Nantes
France
+33 2 40 18 09 16
sales@systemplus.fr

Europe Sales Office
Lizzie LEVENEZ
Frankfurt am Main
Germany
+49 151 23 54 41 82
llevenez@systemplus.fr

America Sales Office
Steven LAFERRIERE
Western USA & Canada
+1 310-600-8267
laferriere@yole.fr

Chris YOUMAN
Eastern USA & Canada
+1 919-607-9839
chris.youman@yole.fr

Asia Sales Office
Takashi ONOZAWA
Japan & Rest of Asia
+81 80 4371 4887
onozawa@yole.fr

Mavis WANG
Greater China
TW +886 979 336 809
CN +8613661566824
wang@yole.fr

Peter OK
Korea
+82 10 4089 0233
peter.ok@yole.fr

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sales@systemplus.fr

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