



OPTICAL TRANSCEIVERS

UNDERSTANDING QUALITY OPTICS IN THE 3RD PARTY WORLD.

Approved Optics supplies many of the 3rd party optics distributors in North America. Most of them are memory or hard drive companies that are now selling optics. In many cases we will private label for these companies or they will simply label the optic and extend our warranty through the computer channel. These are brands that want to insure quality.

Unfortunately some 3rd party brands will 'fill in' or source Chinese modules that are off-spec, which can be very dangerous in a critical environment and have caused great fear around 3rd party optics.

Generic SFPs

Laser leads hard wired to PCB leaving solder joints exposed.



Capacitor array's and voltage regulators used to save on component cost

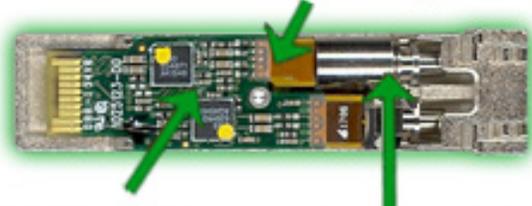
Low cost palstic laser enclosure

1000BASE-LX SFP



Approved Optics

Laser leads connected via flex-ribbon. No exposed leads.



MSA Spec passive used

Aluminum laser enclosure

1000BASE-LX SFP

Above, the product on the left is an off-spec/off-AVL product manufactured by a non-certified contract manufacturer in Asia. This product is dangerous with typically high failure rates and usually contains repeat serial numbers with non-verified or non-existent algorithms that the switch operating system (OS) looks for. This commonly results in port failure.

Approved Optics only partners with the same exact CM's that are leveraged by the major OEM's (Cisco, Juniper, Nortel, HP, Brocade, etc.). These are the same exact factories, and in many cases we share the same production runs, as the brand name OEMs.

Besides the Physical Module; LineCode, Algorithm and Serial Number Sequence are critical:

Most OEM Operating Systems (Juniper, HP, Cisco, Nortel, etc.) require check digit and algorithm verification along with non-repeat serial number verification within the network. Since the line-code on the EEPROM/NVRAM is proprietary to the OEM, it must be re-created with strong engineering and testing in order to insure full functionality in the device. Approved Optics invests heavily in this R & D effort. Not only does Approved Optics maintain and apply the appropriate algorithm per platform, but a unique non-repeating serial number is applied to each individual transceiver to insure there is never duplication within the network. After that every Transceiver(100%) is tested in the specific platform and intended port. To date, there is no other 3rd party optics supplier that has invested in the lab and switch/router equipment across all platforms to achieve this. Due to this process, it is common for Approved Optics to have a lower failure rate than branded OEM optics.

