# 1610/11-Series

MSA-compatible 2.5 Gb/s Cooled DFB TOSA

## Product Brief


### Description

The 1610/11-Series 2.5 Gb/s transmitter optical subassembly (TOSA) integrates a high-speed laser, a monitor photodiode and a micro-TEC in a small form-factor metallized ceramic package. It is designed for use in small form-factor pluggable (SFP) transceivers and other types of optical modules for high-speed telecommunication and data applications including WDM SONET OC-48, SDH STM-16, Fiber Channel and Gibabit Ethernet.

The 1610/11-Series is available in the full range of C band ITU-T wavelengths operating at 2.5 Gb/s per channel. The device exhibits excellent wavelength stability, supporting operation at 100 GHz channel spacing over 15 years (assuming an end-of-life aging condition of <±90 pm), with low hazard rates (~100FIT wearout over 20 yrs.). L band versions are also available, as shown in the Ordering Information tables.

Note: Avagos' 1610 and 1611 type TOSA is available with LC receptacle (for use in DWDM SFP and other pluggable transceivers) or fiber pigtail (for use on line cards)

### Features

- Ultra small form factor 9-pin MSA DFB TOSA
- Data rates up to 2.7Gb/s
- For use up to 200 km (4000 ps/nm) at 2.5 Gb/s
- +6 dBm typical optical output power (200km version)
- Wavelength selectable to ITU-T grid wavelengths, C band and L band wavelengths
- Suitable for use in 100GHz channel spacing DWDM systems
- Temperature stabilized; can also be operated in partially cooled mode for CWDM applications
- Maximum power consumption less than 0.2W
- LC receptacle or pigtailed versions available
- 25Ω single-ended data input
- Case operating temperature ranges:
  -5 to +75°C (standard)
  -40 to +85°C (extended)

### Applications

- SFP Transceivers for DWDM, CWDM and SONET/SDH, GbE & Fibre Channel
- Line cards

For product information and a complete list of distributors, please go to our web site: **www.avagotech.com**


AV02-4116EN - June 5, 2013

# Mouser Electronics

Authorized Distributor

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Broadcom Limited:

1611L322 1611L053 1611L332 1610L350 1610L3883 1611F033 1611F030 1611F040 1610L3890 1611L034 1611L329 1610L045 1610F047 1610L3880 1611L027 1610L0914 1610L0871 1610L0887 1610L3864 1610L0897 1610F054 1610L0888 1611F031 1611L035 1610L331 1611L051 1610L3881 1610L0872 1610L0862 1610L0880 1610L347 1611L321 1610L3865 1611L337 1610L355 1610L036 1610L0904 1610F021 1611L044 1610L322 1610L053 1611F048 1610L020 1611L354 1610F038 1611L345 1611L043 1611F055 1611L019 1610F029 1610L0879 1610L0874 1610L022 1610L0890 1611L339 1611L037 1610L356 1610L341 1611L356 1610L324 1611F057 1611F017 1611L323 1610L037 1611L026 1611F058 1610L325 1611L045 1610F041 1610L0882 1610F049 1610L3882 1610L349 1611F032 1610L3892 1610L0884 1610L3884 1610L3894 1611F043 1611L348 1610F039 1611L349 1610L351 1611F044 1610F018 1611L350 1610F034 1610L033 1611L055 1611L048 1610L318 1610L327 1610L0867 1610L032 1610L317 1610L025 1611L359 1610F050 1611L338 1610F042