SFP Fiber Optic Transceivers

TGCxxxx-RL80

1 Gbps CWDM Optical Transceiver Module

FEATURES

- 125 Mbps data throughput
- 1 Gbps data throughput
- 15 CWDM ITU grid wavelengths
- Pluggable SFP MSA footprint
- Duplex LC connector
- Very low jitter
- Metal enclosure for lower EMI
- 3.3 V power supply with low power dissipation

PRODUCT OVERVIEW

TGC*xxxx*-RL80 series CWDM Optical Transceiver Modules are ideally suited for the high-speed communications required for many of ARRIS' digital networking products, and are intended for indoor use in products such as ARRIS's GT3410A T1/E1 Access Module or the MC1810M or MC2710B Media Converter. Conforming to the Small Form Factor Pluggable (SFP) Multisource Agreement, these state-of-the-art plug-in components are designed for applications that require rates of up to 1.25 Gbps, with the laser transmission portion of the device operating at one of 15 available ITU-compliant (G.694.2) CWDM wavelengths. The modules are supplied with a duplex LC connector.

TGC*xxxx*-RL80 series modules feature a very low jitter contribution, resulting in extremely clean, high-quality eye patterns. And the modules' metal enclosure not only makes them sturdier, but also improves their FCC test margins. This emission and ESD control is particularly important in applications with sensitive multiport hubs and switches. The module dissipates less than 1 W and the Class 1 laser transmitter complies with applicable safety standards (IEC 60825-1 and 21 CFR 1040.10 and 1040.11).

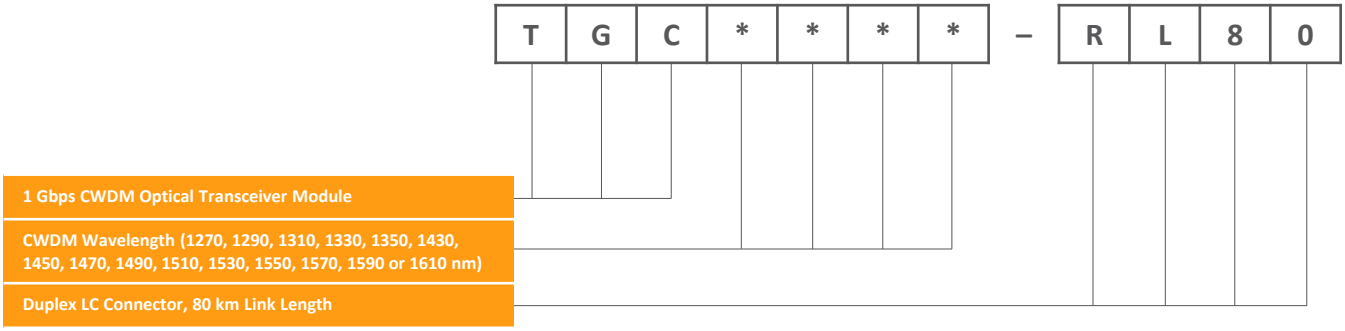
SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	2.24" L x 0.34" H x 0.56" W (5.7 cm x 0.9 cm x 1.4 cm)
Weight	0.1 lbs (0.05 kg)
Environmental	
Application temperature range	–20° to +65°C (–4° to +149°F)
Storage temperature range	–40° to +85°C (–40° to +185°F)
Humidity	5% to 95% non–condensing
Optical Interface	
Optical connectors	Duplex LC
Power requirements	
Input voltage	3.3 V_{DC}
Power consumption	1 W max
General	
Link budget (on SMF-28 or equivalent)	• For CWDM wavelengths 1270-1350 nm: 80 km • For CWDM wavelengths 1430-1610 nm: 120 km
Link loss budget (SFP to SFP)	32 dB min
Data rate	1.25 Gbps max
Hot plug–in/out	
Optical	
Transmitter:	
Type	Uncooled CWDM DFB
CWDM optical wavelengths (per ITU-T G.694.2)	15 wavelengths in two ranges from 1270 to 1350 nm and from 1430 to 1610 nm (20 nm spacing between center wavelengths)
Output power	0 dBm min
Extinction ratio (ER)	9.0 dB min
Dispersion penalty (at 120 km)	2 dB max (measured with a PRBS of 27^{-1} at 1.25 Gbps and $1x10^{-12}$ BER)
Receiver:	
Optical wavelength	1260 nm min, 1620 nm max
Sensitivity	–32 dBm min
Input power	–7 dBm max
	Warning: Exceeding the specified maximum input power will cause permanent damage to the device
Regulatory	
Class 1 devices per FDA 21 CFR 1040.10 and 1040.11, and IEC 60825-1 laser safety regulations.	

RELATED PRODUCTS

GT3410A

ORDERING INFORMATION



Customer Care

Contact Customer Care for product information and sales:

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- International: +1-678-473-5656

Note: Specifications are subject to change without notice.

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