



Network Wide

Optical Transceivers

CWDM-GBIC- NW

1000 BASE CWDM

Features:

- Dual data-rate of 1.25Gbps/1.0625Gbps operation
- Duplex SC, Single-Mode Transceiver
- 8 CWDM Wavelength Available
- Compliant with IEC 60825-1 Class 1/CDRH Class I Laser Eye Safe
- RoHS Compliant Products Available

Applications:

- Gigabit Ethernet
- 1× Fiber Channel
- Switch to Switch interface
- Other optical transmission systems

Product Description:

NETWORKWIDE's CWDM Transceiver products provide optical networking equipment manufacturers with a timely and cost effective tool in supporting the uncreasing demand for higher bandwidth equipment build-outs in the enterprise access and metropolitan area networks. There are 8 center wavelengths available from 1470nm to 1610nm. The 20nm channel spacing allows for un-cooled laser operation, a high yield manufacturing process, and lower cost technology, providing a complete cost effective solution for various data and telecom applications.

Standards:

- Compatible with GBIC specification
- Compatible with IEEE 802.3z

Network Wide

Optical Transceivers

Recommended Operating Conditions:

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating Case Temperature	Tc	0		+70	°C
Power Supply Current	Icc			300	mA
Data Rate			1.25		Gbps

Figure 1 shows the block diagram of this product

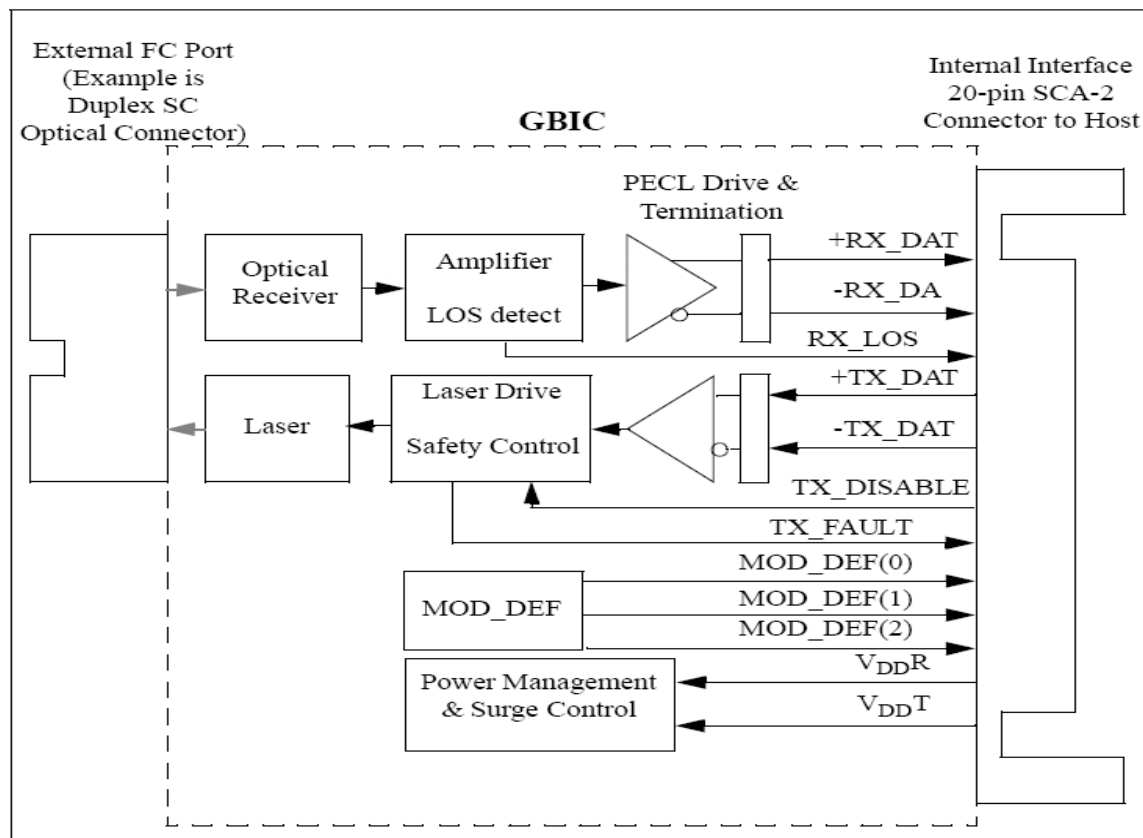


Figure 1: Product Block Diagram

Network Wide

Optical Transceivers

Figure 2 shows the mechanical design diagram of this product

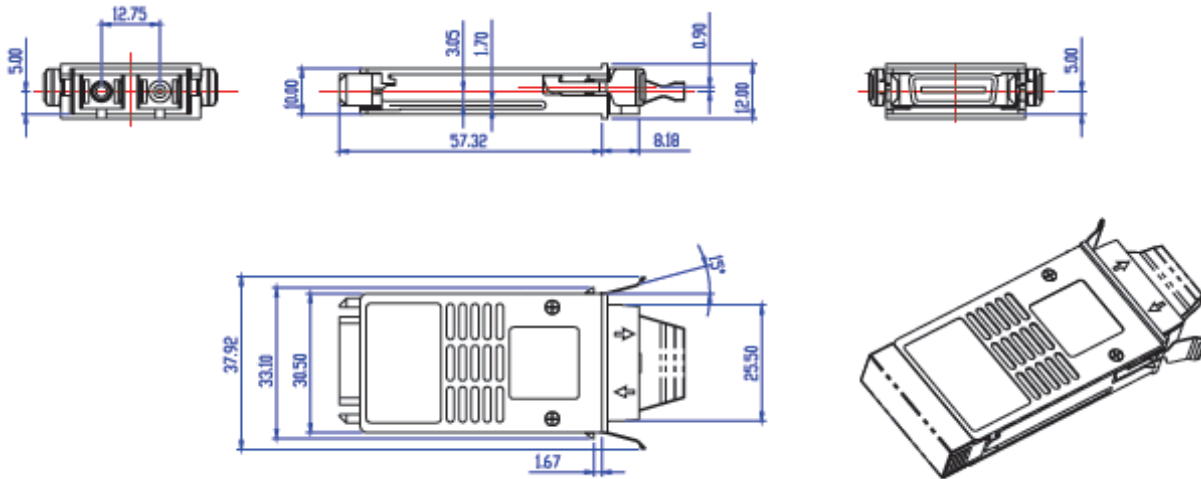


Figure 2: Mechanical Design Diagram (Dimension in mm)

Specification:

1. Absolute Maximum Ratings:

Parameter	Symbol	Min.	Typical	Max.	Unit
Storage Temperature	TC	-40		+85	°C
Supply Voltage	V _{cc} T, R	-0.5		5.5	V
Relative Humidity	RH	5		95	%

2. Specifications (T=25°C, BOL, unless otherwise noted)

Parameter	Symbol	Min.	Typical	Max.	Unit
High Speed Signal					
Parameter	Symbol	Min.	Typical	Max.	Unit
Transmitter Data Input Voltage – Low	V _{IL} -V _{CC}	-1.810		-1.475	V
Transmitter Data Input Voltage – High	V _{IH} -V _{CC}	-1.165		-0.880	V
Data Input Swing Differential	V _{IN}	500		2400	mV



Network Wide

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Data Output Load	RDL		50		□
Data Output Voltage – Low	VOL – VCC	-1.950		-1.620	V
Data Output Voltage – High	VOH – VCC	-1.045		-0.740	V
Data Output Swing Differential	Vout	400		1200	mV
Transmitter Section:					
Parameter	Symbol	Min.	Typical	Max.	Unit
Center Wavelength	C	$\lambda-4$	λ	$\lambda+6$	nm
Side Mode Suppression Ratio	SMSR	30			dB
Optical Output Power	Pout	-2		3	dBm
Extinction Ratio	E.R	9.2		13	dB
Eye Margin	Max M	24			%
Receiver Section:					
Parameter	Symbol	Min.	Typical	Max.	Unit
Optical Input Wavelength	□C	1360		1660	nm
Receiver Overload		-3			dBm
RX Sensitivity	Sen			-22	dBm
LOS De-Assert	LOSD			-23	dBm
LOS Assert	LOSA	-32			dBm
LOS Hysteresis		1		4	dB
Dispersion Penalty			2	2.5	dB
Total System Budget	LB	35			dB

NW Ordering information: E_mail: sales@networkwide.co.uk

Part Number	Product Description
CWDM-GBIC- NW 1470/1490/1510/1530/1570/ 1590/1610	1000BASE CWDM