

WTPS-G35-20D/ WTPS-G53-20D

Small Form-Factor Pluggable Transceiver

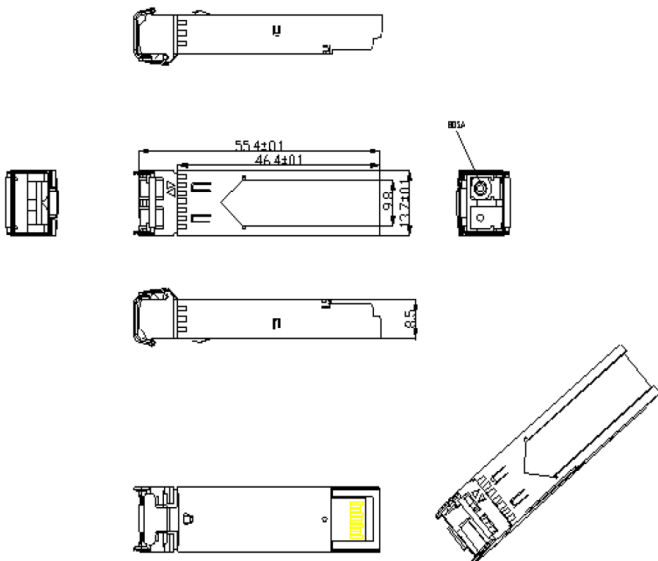
Technical Specification



Key Features

- ▶ Up to 1.25Gb/s data links.
- ▶ FP laser transmitter for WTPS-G35-20D.
- ▶ DFB laser transmitter for WTPS-G35-20D.
- ▶ PIN Photo-detector.
- ▶ Up to 20Km on 9/125μm SMF.
- ▶ Hot-swappable SFP footprint.
- ▶ BIDI SC/UPC connector.
- ▶ Low power dissipation.
- ▶ Metal enclosure, for lower EMI.
- ▶ RoSH compliant and lead-free.
- ▶ Single +3.3V power supply.
- ▶ Support Digital Diagnostic Monitoring interface.
- ▶ Case operating temperature
 - Operating Temp. : -40°C to +74°C
 - Storage Temp. : -55°C to +85°C

Dimension (Unit: mm)



Parameters	Sym.	Min.	Max.	Unit	Note
Absolute Maximum Ratings					
Storage Temp.	T _s	-55	85	°C	
Storage Ambient Humidity	HA	5	95	%	
Power Supply Voltage	V _{cc}	-0.5	4	V	
Signal Input Voltage		-0.3	V _{cc} +0.3	V	
Receiver Damage Threshold		5		dBm	
Recommended Operating Conditions					
Case Operating Temperature	T _{case}	-40	74	°C	WTPS-G35-20D
		-40	85		WTPS-G35-20DA
Ambient Humidity	HA	5	70	%	Non-condensing
Power Supply Voltage	V _{cc}	3.13	3.47	V	
Power Supply Current	I _{cc}		280	mA	
Power Supply Noise Rejection			100	mVp-p	100Hz to 1MHz
Data Rate				Gbps	TX Rate/RX Rate
Transmission Distance			20	Km	
Coupled Fiber		Single mode fiber			9/125um SMF
Specification of Transmitter					
Average Output Power	POUT	-9	-3	dBm	
Extinction Ratio	ER	9		dB	
Center Wavelength	λ _c	1270	1360	nm	WTPS-G35-20D
		1530	1570		WTPS-G53-20D
Spectrum Width (RMS)	σ		3.5	nm	FP Laser (TX:1310nm)
Side Mode Suppression Ratio	SMSR	30		dB	DFB Laser (TX:1550nm)
Spectrum Bandwidth (-20dB)	σ		1	nm	
Transmitter OFF Output Power	POff		-45	dBm	
Differential Line Input Impedance	R _{IN}	90	110	Ohm	
Total Jitter (Peak-Peak)	t _J		0.1	UI	Note (1)
Output Eye Mask		Compliant with IEEE802.3z (Class 1 laser safety)			Note (2)
Specification of Receiver					
Input Optical Wavelength	λ _{IN}	1530	1570	nm	WTPS-G35-20D
		1270	1360		WTPS-G53-20D
Receiver Sensitivity	P _{IN}		-20	dBm	Note (1)
Input Saturation Power (Overload)	PSAT	-3		dBm	
Los Of Signal Assert	PA	-38		dBm	
Los Of Signal De-assert	PD		-22	dBm	Note (2)
LOS Hysteresis	PA- PD	0.5	6	dB	
Electrical Interface Characteristics					
Transmitter					
Total Supply	I _{CC}		A	mA	Note (1)
Disable Input-High	V _{DISH}	2	V _{CC} +0.3	V	
Disable Input-Low	V _{DISL}	0	0.8	V	
Fault Input-High	V _{DISL}	2	V _{CC} +0.3	V	
Fault Input-Low	V _{DISH}	0	0.8/	V	
Receiver					
Total Supply	I _{CC}		B	mA	Note (1)
Out Voltage-High	V _{LOSH}	2	V _{CC} +0.3	V	LVTTTL
Out Voltage-Low	V _{LOSL}	0	0.8	V	