

155M Duplex Single Mode 1×9 Transceiver

(OP-MA113F1S3-20)

Features:

- * 1X9 DIP plastic package with duplex SC receptacle
- *LVPECL logic interface, +3.3V single power supply
- *1310nm MQW FP Laser diode transmitter
- *InGaAs/InP PIN photodiode receiver
- *25km transmission with SMF
- *Suitable used in the full-duplex transmission application
- *Full compliant with ITU-T G.957, G.958 specification
- *SONET/SDH OC-3/STM-1 compliant

Application:

Long haul Ethernet transmission
SONET/SDH/ATM

Description:

OP-MA113F1S3-20 transceiver is a series single mode SC duplex module designed for optical data communication applications. It is electrically compatible with the MSA transceiver.

The transmitter section incorporates an advanced FP laser and driver IC with temperature compensation and automatic power control circuit. The receiver section incorporates an efficient InGaAs/InP PIN photodiode and Trans-impedance amplifier with AGC for wide dynamic range. The transceiver has excellent reliability.

OP-MA113F1S3-20 series transceiver is used for Long haul Ethernet transmission or SONET/SDH/ATM. It is fully compliant with ITU-T G.957, G.958 specification. a 15km to 60km point-to-point solution is suitable to use in the SONET/SDH and 100/1000 Ethernet full-duplex transmission system.

Performance specifications:

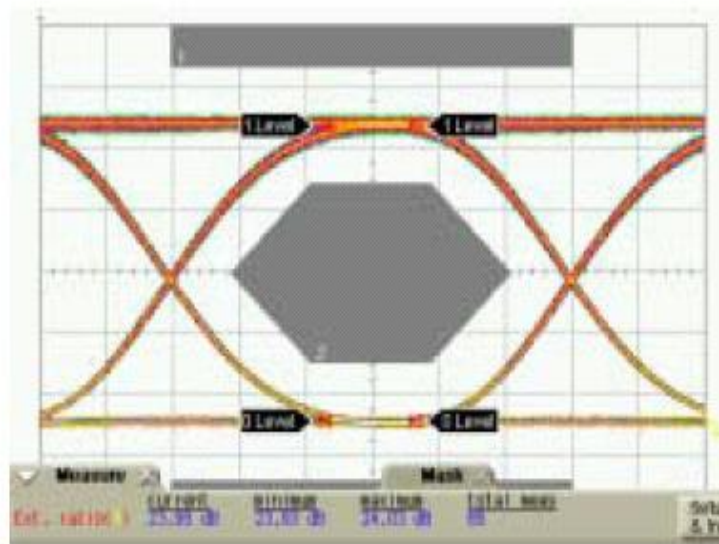
Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Units
Storage Temperature	Tst	-40	+85	° C
Operating Temperature (Standard)	Top	0	70	° C
Operating Temperature (Industrial)	Top	-40	85	° C
Supply Voltage	Vcc	0	6	V
Input voltage	Vin	GND	Vcc	
Lead Soldering Temperature & Time		240/10		° C/s

Transmitter Section:

(Ambient Operating Temperature 0° C to +70° C, Vcc =3.1to 3.5V)

Parameter	Symbol	Min.	Typ.	Max.	Units
Data rate		5	155	-	Mb/s
Center Wavelength	λ_o	1260	1310	1360	nm
Output Spectral width	$\Delta \lambda$	-	-	4	nm
Average Optical Output Power (P0)	OP-MA113F1S3-20	-12	-9	-3	dBm
Extinction Ratio	Er	10	-	-	dB
Power Supply Current	Ioc	-	70	-	mA
Optical Eye Diagram	ITU - T G. 957 Recommendation				



Optical eye diagram

Receiver Section:

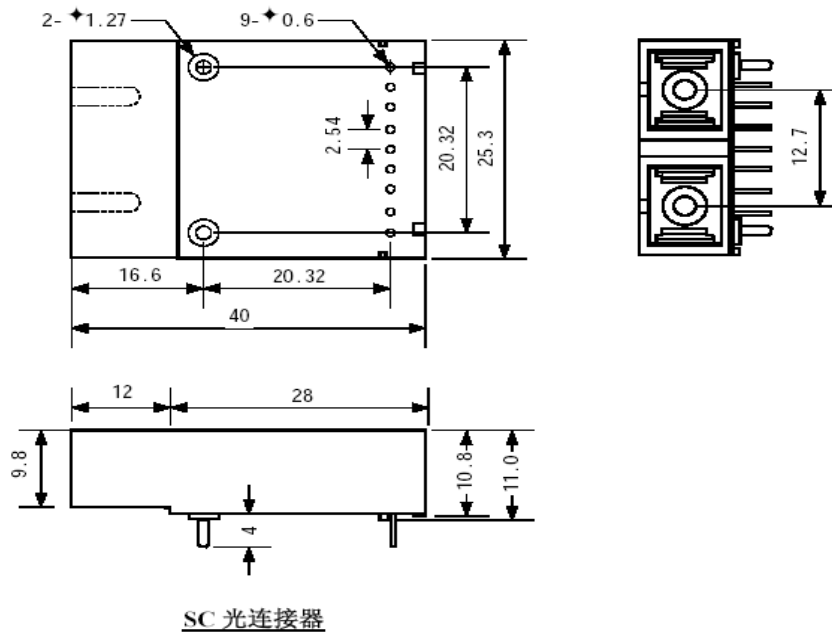
(Ambient Operating Temperature 0° C to +70° C, Vcc =3.1to 3.5V)

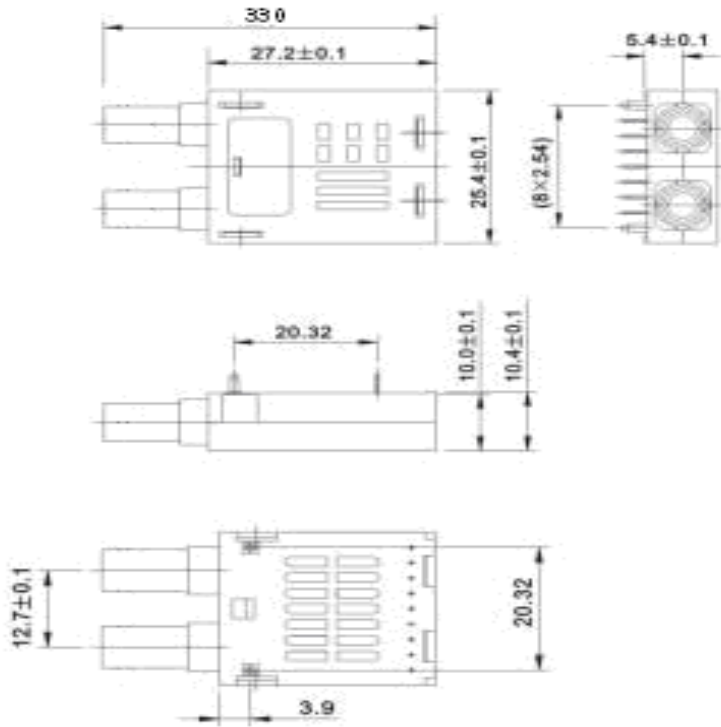
Parameter	Symbol	Min.	Typ.	Max.	unit
Wavelength	λ	1100	1310	1600	nm
Vcc Current	I_{cc}	-	70	-	mA
Maximum Input Power	P_{max}	0	-	-	dBm
Data rate		5	155	-	Mb/s
Receiver Sensitivity	P_{min}	-	-39	-38	dBm
Signal Detect Thresholds	P_{th}	-46	-	- 39	dBm

Pin Description (管脚描述):

Pins	1	2	3	4	5
Function	VEER	RD+	RD-	SD	VCCR
Pins	6	7	8	9	
Function	VCCT	TD-	TD+	VEET	

size:





FC

Application:

