ORing

SFP100B3-MM / SFP100B3-MM-I

100Mbps SFP optical Transceiver, Multi-mode BIDI / 2KM, TX1310nm / RX1550nm

Highlights

- > Compliant with Fast Ethernet Standard
- Compliant with IEEE802.3ah 100Base-BX
- Differential LVPECL inputs and outputs
- TTL signal detect indicator
- Single power supply 3.3VDC





Features

- RoHS compliant
- Compliant with Fast Ethernet standard
- Compliant with IEEE802.3ah 100Base-BX
- Industry standard small form pluggable (SFP) package
- Simplex LC connector

- Differential LVPECL inputs and outputs
- Single power supply 3.3V
- TTL signal detect indicator
- Hot Pluggable
- Class 1 laser product complies with EN 60825-1

Application

- Distributed multi-processing
- Switch to switch interface
- High speed I/O for file server

- Bus extension application
- Channel extender, data storage

Pin-Assignment



Pin	Signal Name	Description
1	T _{GND}	Transmit Ground
2	TX_FAULT	Transmit Fault
3	TX_DISABLE	Transmit Disable
4	MOD_DEF (2)	SDA Serial Data Signal
5	MOD_DEF (1)	SCL Serial Clock Signal
6	MOD_DEF (0)	TTL Low
7	RATE SELECT	Open Circuit
8	RX_LOS	Receiver Loss of Signal, TTL High, open collector
9	R _{GND}	Receiver Ground
10	R _{GND}	Receiver Ground
11	R _{GND}	Receiver Ground
12	RX-	Receiver Data Bar, Differential PECL, ac coupled
13	RX+	Receiver Data, Differential PECL, ac coupled
14	R _{GND}	Receiver Ground
15	V _{CCR}	Receiver Power Supply
16	V _{CCT}	Tranmitter Power Supply
17	T _{GND}	Transmit Ground
18	TX+	Transmit Data, Differential PCEL, ac coupled
19	TX-	Transmit Data Bar, Differential PCEL, ac coupled
20	T _{GND}	Transmit Ground

Dimension









Specifications

ABSOLUTE MAXIMUM RATINGS :								
Parameter	Symbo	bl		Min	Max			Units
Storage Temperature	Ts			-40	85			°C
Supply Voltage	Vcc	t		-0.5	4.0			V
Input Voltage	Vin			-0.5	Vcc			V
Output Current	Io		-		50		mA	
Operating Current	Iop		-		400		mA	
RECOMMENDED OPER	ATING CONDITIO	NS :						
Parameter	Symbo	ol		Min	Max			Units
Case Operating			SF	P100B3-MM = 0	SFP100B3-MM	= 70		
Temperature	Тс		SFP1	100B3-MM-I = -40	SFP100B3-MM-	[= 85		°C
Supply Voltage	Vcc		3.1		3.5		V	
Supply Current	Itx + Irx		-		200		mA	
TRANSMITTER ELECT	RO-OPTICAL CHA	RACTERISTIC	S : V cc =	= 3.1V to 3.5V, Tc=0°	C to 70°C (-40°C to 3	85°C)		
Parameter	Symbol	Mir	1	Тур.	Max	Un	its	Note
Output Optical								
Power 9/125,	-							
62.5/125 μm	Pout	-10		-	0	dBm	1	Average
fiber								
Extinction Ratio	ER	8.2		-	-	dB		
Center)	1201		1210	1260			
Wavelength	AC	1261		1310	1360	nm		
Spectral Width	<u>۸</u>	_		_	7	nm		
(RMS)		-		-	/			
Rise / Fall Time ,	Tr (_		1	2	nc		
(10-90%)	11 <i>, </i>	-		I	2	115		
Max. P _{out}								
TX-DISABLE	POFF	-		-	-45	dBm	ı	
Asserted								
Output Eye		Compliant v	vith Telco	ordia GR-253-CORE Iss	ue 3 and ITU-T recom	mendation G-	-957	
Differential Input	VDIFF	0.4		-	2.0	v		
Voltage								
RECEIVER ELECTRO-0	PTICAL CHARACT	ERISTICS : V	cc = 3.1	V to 3.5V, Tc=0°C to 3	70°C (-40°C to 85°C)		
Parameter	Symbol	Mir		Тур.	Max	Un	its	Note
Optical Input	PIN	0		-	-	dBm	1	$BER < 10^{-10}$
Power-maximum		•				ubiii		DER 10
Optical Input								10
Power-minimum	P _{IN}	-		-	-28	dBm	1	BER < 10 ⁻¹⁰
(Sensitivity)								
Operating Center	λc	1480		-	1600	nm		
wavelength	100				40	d b		1 - 1490 - 1600 pm
	ISU	-		-	-40	dB dD-		λ = 1480 ^{/2} 1000 IIII
Loss of Signal-Asserted	PA	-		-	-28	dBm	1	
LOSS OF Signal-Deasserted	PD	-45		-	-	dBm	n	
Differential Output								
Voltage	V _{DIFF}	0.5		-	1.6	V		
Data Output Rise, Fall								
Time (10-90%)	Tr , <i>f</i>	-		1	2	ns		
Receiver Loss of Signal								
Output Voltage-Low	RX_LOSL	0		-	0.5	V		
Receiver Loss of Signal		2.4			N N			
Output Voltage-High	KA_LUSH	2.4		-	Vcc	v		

Ordering Information

SFP100B3-MM-A

Code Definition	Additional Port Type				
Option	-I: Industrial extended model for -40 ~ 85°C				
	* Regular model : 0 ~ 70°C				
	Model Name	Description	Operating Temperature		
Available Model	Model Name SFP100B3-MM	Description 100Mbps SFP optical Transceiver, Multi-mode BIDI / 2KM, TX1310nm / RX1550nm,	Operating Temperature 0 ~ 70°C		

Mouser Electronics

Authorized Distributor

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