

10Gbps XFP Optical Transceiver RTX226-440

Specifications

(Tested under recommended operating conditions, unless otherwise noted)

10Gbps XFP Optical Transceiver RTXM226-440

Ordering Information

Part No.	Specifications								
	Package	Data rate	Laser	Optical Power	Detector	Sensitivity	Top	Reach	Others
RTXM226-440	XFP	10G	1550nm EML	-1 ~ 2dBm	PIN	<-16dBm	-5~70°C	40km	DDM,RoHS

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Supply Voltage 1	V _{CC3}	V	-0.5	4.0
Supply Voltage 2	V _{CC5}	V	-0.5	6.0
Storage Temperature	T _s	°C	-40	85
Operating Case Temperature	T _c	°C	-5	70
Relative Humidity (Non condensation)	-	%	5	90

Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Operating Case Temperature	T _c	°C	-5	-	70
Supply Voltage 1	V _{CC3}	V	3.13	3.3	3.47
Supply Current 1	I _{CC3}	mA	-	-	750
Supply Voltage 2	V _{CC5}	V	4.75	5.0	5.25
Supply Current 2	I _{CC5}	mA	-	-	500
Power Dissipation	-	W	-	-	3.5

Electrical Characteristics

(Tested under recommended operating conditions, unless otherwise noted)

Parameter	Symbol	Unit	Min	Typ	Max	Note
Transmitter						
Input Differential Impedance	R _{in}		-	100	-	
Differential Data Input Swing	V _{in,pp}	mV	120	-	1000	
Transmit Disable Voltage	V _D	V	2.0	-	V _{CC3}	
Transmit Enable Voltage	V _{EN}	V	0	-	+0.8	
Transmit Disable Assert Time	-	V	-	-	10	
Receiver						
Differential Data Output Swing	V _{out,pp}	mV	400	-	800	
Data Output Rise Time	T _r	ps	24	-	-	
Data Output Fall Time	T _f	ps	24	-	-	
LOS Fault	-	V	V _{dd3} -0.5	-	V _{dd3}	1
LOS Normal	-	V	0	-	+0.5	
Note1: V _{dd3} is host +3.3V power supply.						

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Symbol	Unit	Min	Max	Note
V_{IH}	V	2.0	$V_{cc3}+0.3$	
V_{IL}	V	-0.3	0.8	
V_{OH}	V	$V_{dd3}-0.5$	$V_{dd3}+0.3$	1
V_{OL}	V	0.0	0.4	
V_{IH}	V	$V_{dd3} \times 0.7$	$V_{dd3}+0.5$	

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Pin	Logic	Symbol	Name/Description	Note
1		GND	Module Ground	1
2		VEE5	Optional -5.2V Power Supply (Not Required)	
3	LVTTL-I	Mod_DeSel	Module De-select; When held low allows module to respond to 2-wire serial interface	
4	LVTTL-O	Interrupt	Interrupt; Indicates presence of an important condition which can be read over the 2-wire serial interface	2
5	LVTTL-I	TX_DIS	Transmitter Disable; Turns off transmitter laser output	
6		VCC5	+5V Power Supply	

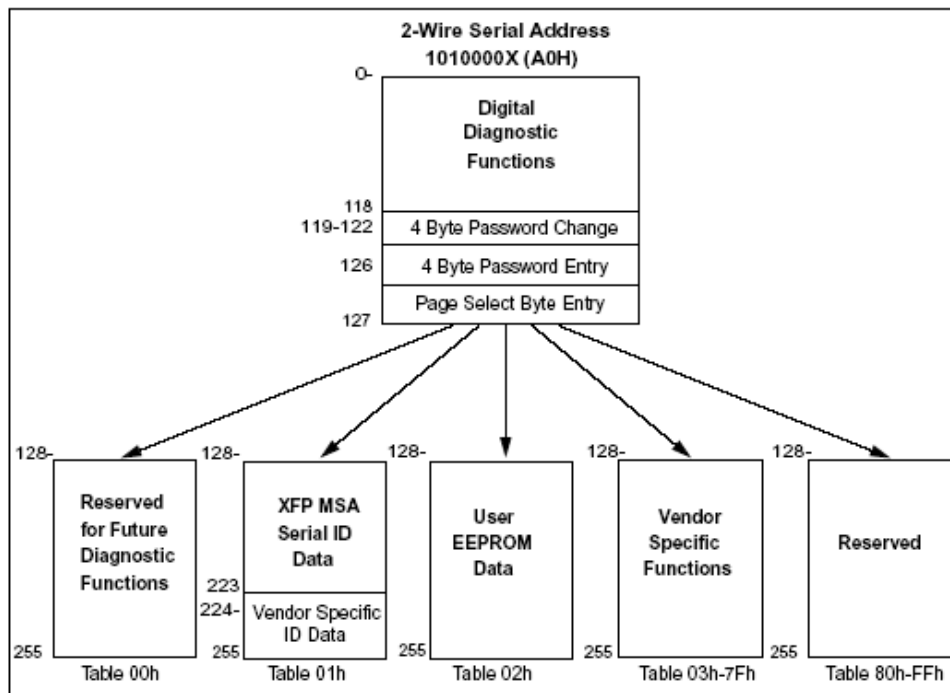
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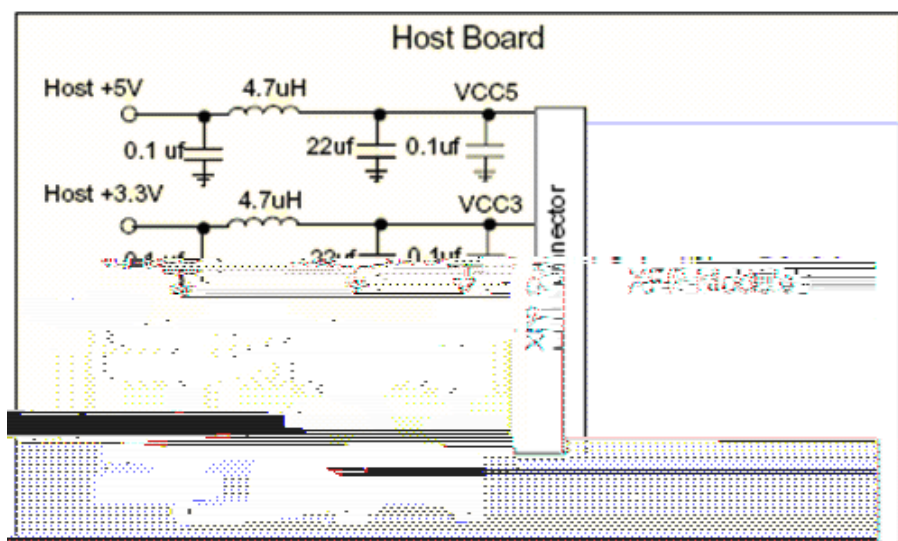
Digital Diagnostic Functions

As defined by the XFP MSA, digital diagnostic functions are provided via a 2-wire serial interface, which allows real-time access to the following operating parameters:

- Transceiver Temperature
- Tx Bias Current
- Tx Optical Power
- RX Received Optical Power
- Transceiver +3.3V Supply Voltage
- Laser Temperature

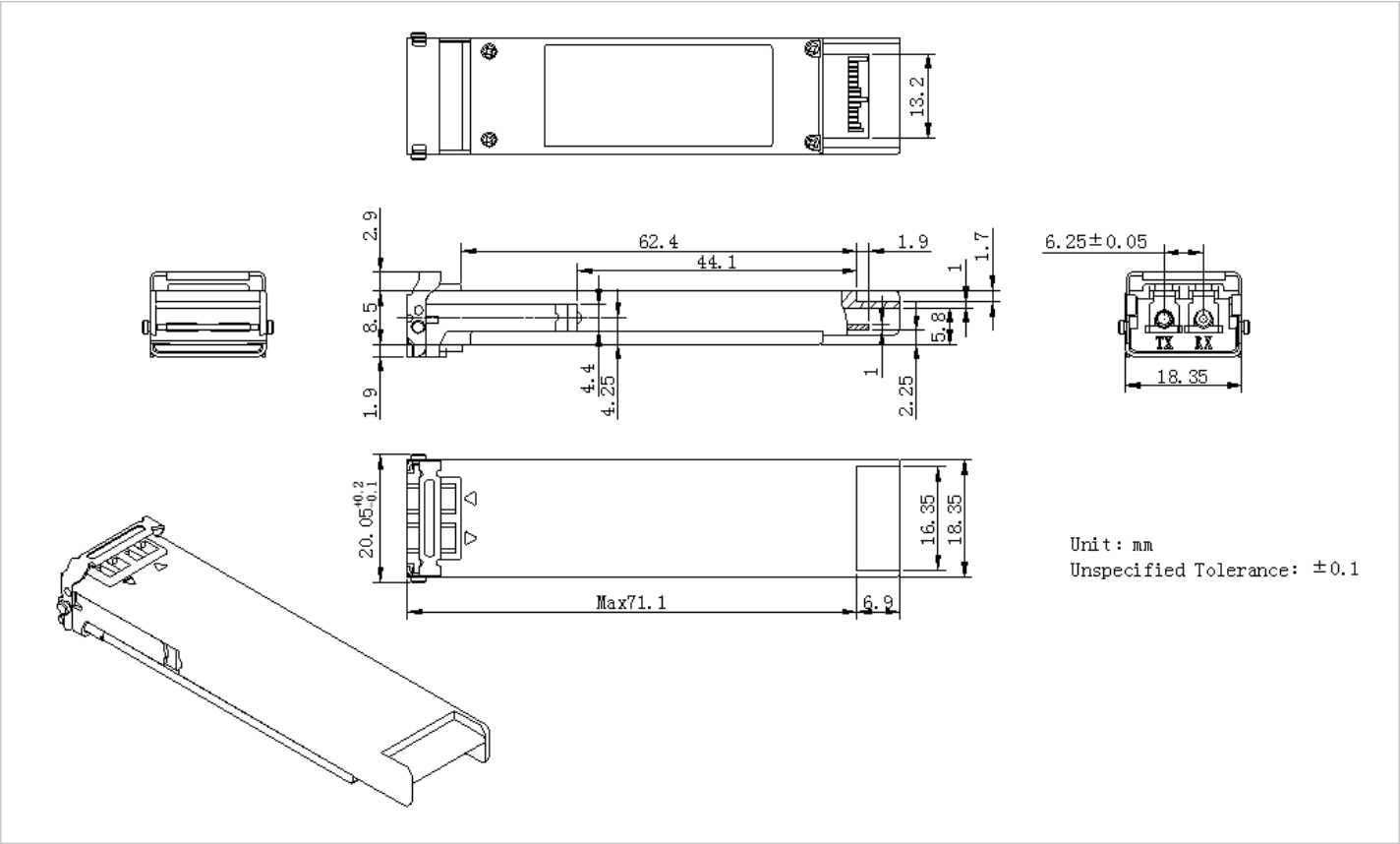


Typical Application Circuit for Power Supply



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Package Outline



Regulatory Compliance

Feature	Test Method	Performance
Laser Eye Safety	FDA 21 CFR 1040.10 and 1040.11 IEC 60825-1: 1994+ A11: 1996+ A2: 2001 IEC 60825-2: 2004 + A1: 2006 EN 60825-1:1994+A1:2002+A2:2001 EN 60825-2: 2004	Compliant with Class 1 laser product
Electrostatic Discharge (ESD) to the Electrical Pins Electrostatic Discharge	MIL-STD-883E Method 3015.7 Human Body Model	Class 1 (>1.5kV)