

5V DIP20 155 Mb/s Receiver Module

RXMM945-402

Features

- *SC pigtail optical interface*
- *DIP 20pin package*
- *Single +5V power supply*
- *-40 to 85°C operating temperature range*
- *PECL data output*
- *PECL receiver signal-detected indication*
- *With clock recovery*
- *RoHS Compliant*

Application

- *SDH / PDH optic fiber transmission system*

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	Ts	°C	-40	+85
Power Supply Voltage	Vcc	V	-0.5	+5.5
Lead Solder Temperature	-	°C	-	260
Lead Solder Duration	-	S	-	10
Fiber Yield Strength	-	kgf	-	1
Fiber Bend Radius	--	mm	-	30

Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	Top	°C	-40	-	85
Power Supply Voltage	Vcc	-	4.75	5	5.25

Specifications (Top= -40 oC to 85oC and VCC=4.75V to 5.25V)

Parameter	Symbol	Unit	Min	Typ	Max	Note	
Electrical Characteristics							
Supply current	Icc	mA	-	-	165		
Data Output Voltage-Low	VOL-VCC	V	3.0	-	3.3		
Data Output Voltage-High	VOH-VCC	V	3.8	-	4.3		
Data Output Load	RDL	Ω	-	50	-		
Signal Detect Output Load	RSDL	Ω	-	50	-		
SD Output Voltage-Low	VOL-VCC	V	0	-	0.4	1	
SD Output Voltage-High	VOH-VCC	V	3.6	-	5	1	
Optical receiver Characteristics							
Data rate	-	Mbps	-	155.52	-		
Response wavelength	-	nm	1200	-	1600		
Receiver Sensitivity	S	dBm	-	-	-36	2	
Overload Input Power	-	dBm	-3	-	-	2	
LOS	De-Assert	LOSD	dBm	-	-	-37	
	Assert	LOSA	dBm	-48	-	-	
LOS Hysteresis	-	dB	0.5	-	6		
SD Response Time	-	us	-	-	600		
Jitter	ITU G.958 Compliant						
Core Diameter	-	microns	50	-	-		
Cladding Diameter	-	microns	125	-	-		
Secondary Coating Diameter	-	microns	900	-	-		

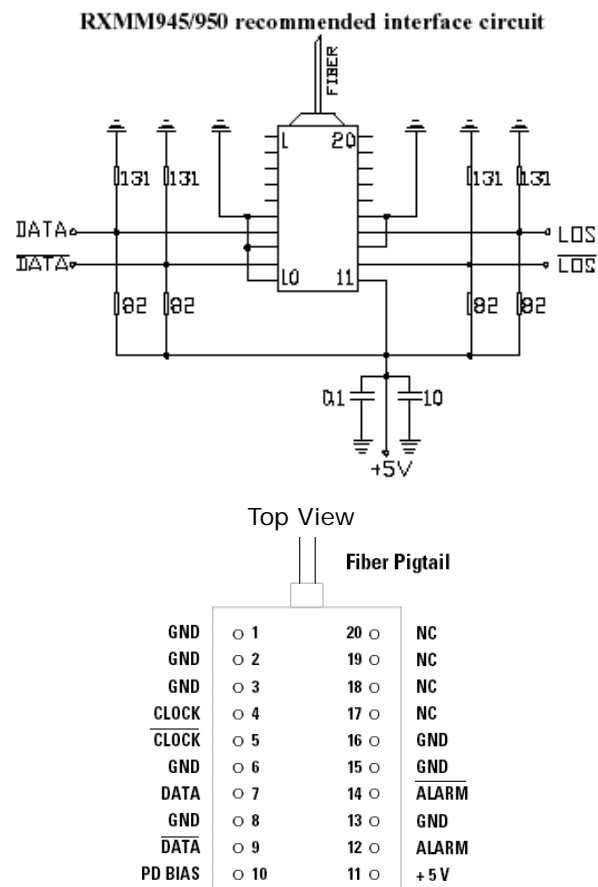
Notes 1:SD is PECL compatible when terminated with 50Ω to VCC -2V.

Notes 2:Sensitivity and overload for 223-1 PRBS with Bit Error Rate better than or equal to 1×10^{-10}

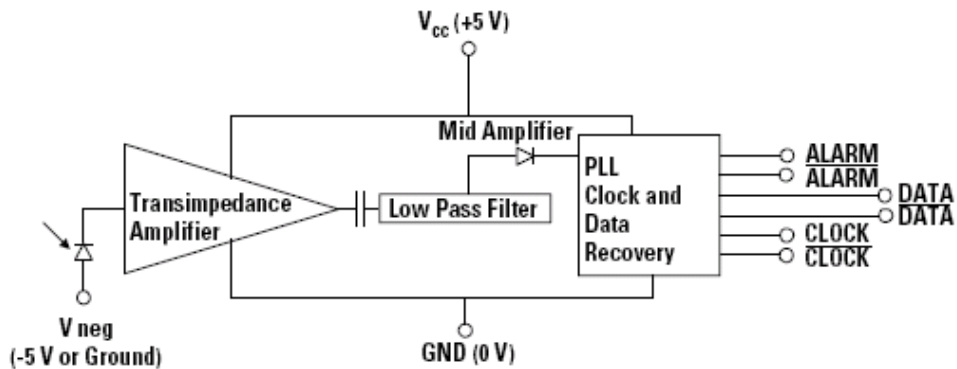
Pin Description

Pin Name	Description	Pin Name	Description
1	GND Connected to ground	11	Vcc Positive power normally +5.0V
2	GND Connected to ground	12	ALARM Loss of signal, High level when normal Low level when no light
3	GND Connected to ground	13	GND Connected to ground
4	CLOCK Clock output	14	ALARM - Reverse Loss of signal, Low level when normal High level when no light
5	CLOCK - Reverse clock output	15	GND Connected to ground
6	GND Connected to ground	16	GND Connected to ground
7	DATA Data output	17	NC Not connected
8	GND Connected to ground	18	NC Not connected
9	DATA- Reverse data output	19	NC Not connected
10	PD BIAS Connected to any voltage between GND and -5V	20	NC Not connected

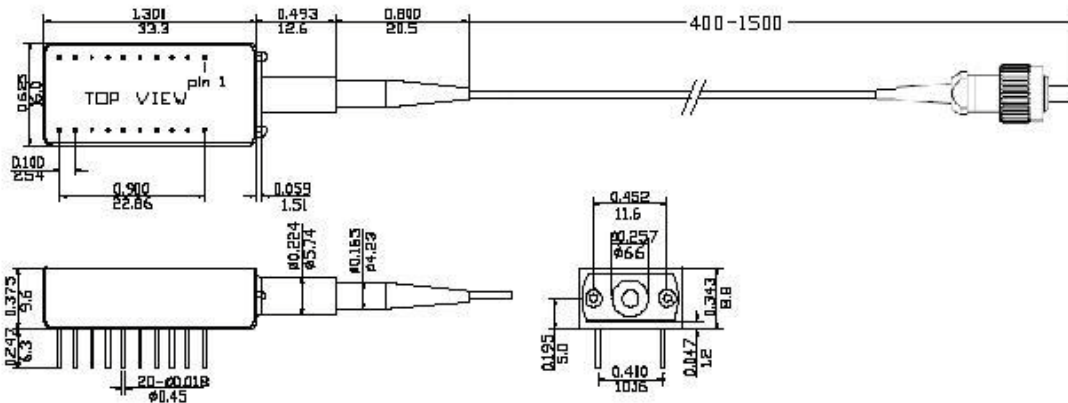
Typical Application Circuit



Block Diagram



Package Outline (Unit: mm)



Ordering Information

Part No	Specification					
	Package	Data rate	Detector	Sensitivity	Temp	others
RXMM945-402	DIP 20pin	155.52 Mb/s	PIN	< -36dBm	-40~85°C	RoHS

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