
5V DIP20 155 Mb/s Receiver module**RXMM945-001****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

Applications

- SDH / PDH optic fiber transmission system

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	T _s	°C	-40	+85
Power Supply Voltage	V _{cc}	V	-0.5	+7
Power Supply Voltage	V _{NEG}	V	-10	+0.5
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	T _{op}	°C	-40	-	85
Power Supply Voltage	V _{cc}	-	4.75	5	5.25

RXMM945-001

Specifications ($T_{op} = -40^{\circ}\text{C}$ to 85°C and $V_{CC} = 4.75\text{V}$ to 5.25V)

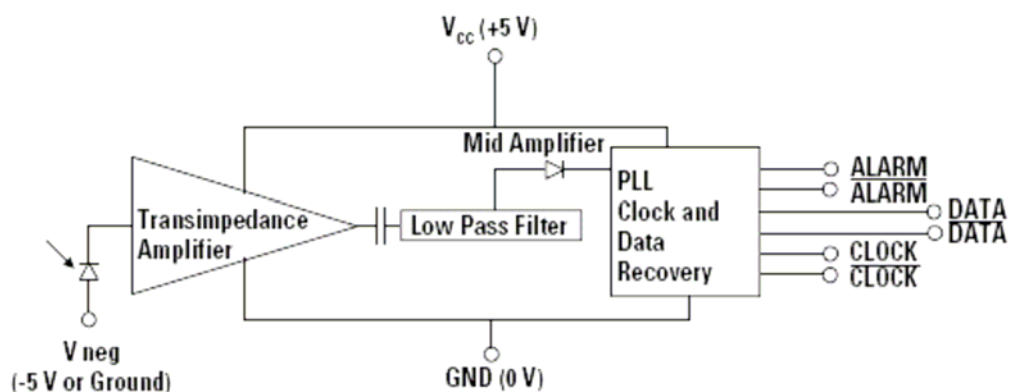
Parameter	Symbol	Unit	Min	Typ	Max	Note
Electrical Characteristics						
Supply current	I_{cc}	mA			165	
Data Output Voltage-Low	V_{OL}	V	3.1	-	3.5	
Data Output Voltage-High	V_{OH}	V	3.8	-	4.15	
Data Output Load	R_{DL}	Ω	-	50	-	
Signal Detect Output Load	R_{SDL}	Ω	-	50	-	
SD Output Voltage-Low	V_{OL}	V	0	-	0.5	1
SD Output Voltage-High	V_{OH}	V	4.5	-	5	1
RXMM945 Optical receiver Characteristics						
Data rate		Mbps		155		
Response wavelength		nm	1200		1600	
Receiver Sensitivity	S	dBm			-36	2
Overload Input Power		dBm	0			2
Signal Detect-Deasserted	P_D	dBm	-45			
Signal Detect-Asserted	P_A	dBm			-37	
Signal Detect-Hysteresis	$P_D - P_A$	dB	0.5		4	
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 terminated with $50\ \Omega$ to $V_{CC} - 2\text{V}$.

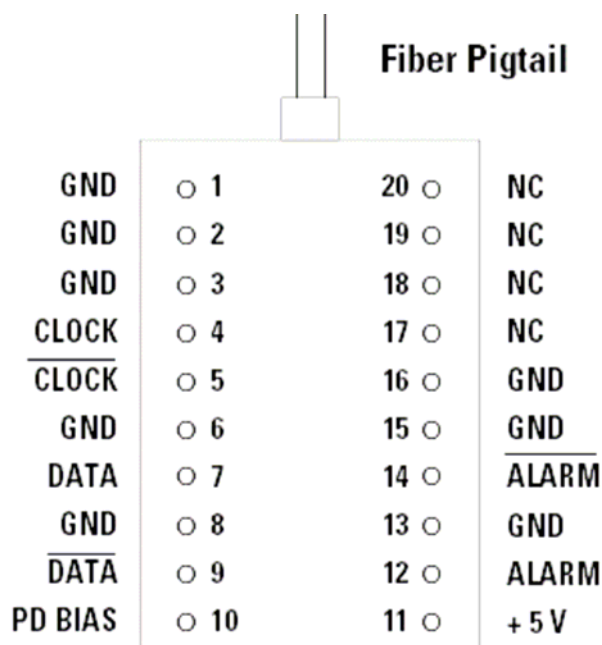
Notes 2: Sensitivity and overload for $2^{23}-1$ PRBS with Bit Error Rate better than or equal to 1×10^{-10}

Pin Description

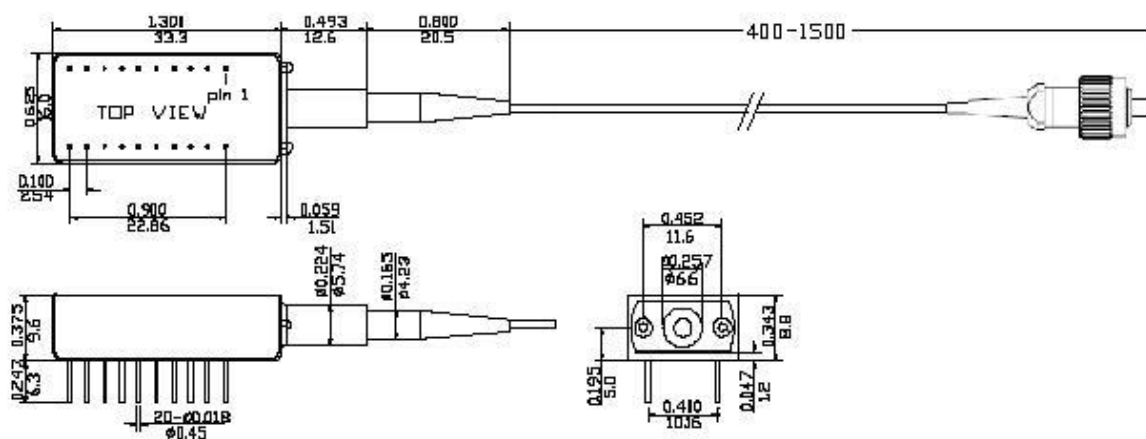
Pin	Name	Description	Pin	Name	Description
1	GND	Connected	11	Vcc	Positive power normally +5.0V
2	GND	Connected	12	ALARM	Loss of signal, High level when normal Low level when no light
3	GND	Connected	13	GND	Connected to ground
4	CLOCK	Clock output	14	ALARM -	Reverse Loss of signal, Low level when normal High level when no light
5	CLOCK-	Reverse clock output	15	GND	Connected to ground
6	GND	Connected	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



Top View



Package Outline(Unit: mm)



RXMM945-001

Ordering Information

Part No	Specification					
	Package	Data rate	Detector	Sensitivity	Temp	Interface
RXMM945-001	DIP 20pin	155 Mb/s	PIN	-36dBm (max)	-40~85°C	SC pigtail

Contact Information

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