

point2point

AC ANALOGUE 1MHz-2GHz FIBRE-OPTIC-LINK



System Parameters (at 25°C unless otherwise noted)

	Standard	Optional
Bandwidth (-3dB)	<1MHz to >2GHz	Alternative bandwidths are available
Risetime (10-90%)	<250ps	
Jitter	<10ps rms (measured on a 500MHz sinewave)	
Simultaneous Dynamic Range @500MHz	>150dB in a 1Hz bandwidth	Refer to PPM Application Note AN014.
Transmitter Gain, Nominal	0dB	
Receiver Gain, Nominal	0dB	
Electrical Link Gain, Nominal	= 0dB – [2 x Optical Loss] Optical Loss due to fibre is 0.4dB/km Optical Loss due to connectors is 0.5dB per connector typical Refer to PPM Application Note AN015 for a discussion on the gain calculation for the AC Analogue Fibre-Optic-Link systems.	
Gain Stability	Better than +/-0.25dB after 20 minutes warm up	
Receiver Gain Status LED	Green: Gain is > - 3dB Alternating Red/Green: Gain is between -3dB and -10dB Red: Gain is less than -10dB	
Passband Flatness	<+/-1dB (typical +/-0.5dB for 10MHz to 1.5GHz)	
Phase Flatness	<+/-20° (typical +/-5° for 1MHz to 2.5GHz)	
Noise Figure @ 500MHz	<25dB for 0dB Tx Gain (typ. <23dB)	
Input P1dB @ 500MHz	>0dBm for 0dB Tx Gain (typ. +2dBm)	
Input IP3 @ 500MHz	>10dBm for 0dB Tx Gain	
Absolute Maximum Input	>+15dBm, 5Vdc	
Input/Output Impedance, VSWR	50Ω, ≤2:1	

Operating Temperature	-10 ⁰ C to +40 ⁰ C	
Electrical Signal Connector	SMA female	
Optical Signal Connector	Angle Polish FC/APC Singlemode	
Data Channel		RS232 single channel 115kb/s. Other data formats and rates available.
Data Channel Optical Connector		ST Multimode 50/125
Supply Voltage	Refer to housing option	
Current Consumption	<250mA Tx, <150mA Rx	
Housing Options	Shielded Remote Module, Plug-In Module. Using a Converter Sleeve 75002 the Plug-In module can be supplied as a single Remote Module. Refer to point2point Cases/Modules Datasheet for full details of these housing options.	
Rack Mount Case Suitability	PRK1, PRK2, PRK3 Refer to point2point Cases/Modules Datasheet for full details of these case options.	
Bandwidth (-3dB)	<40Hz to >250MHz (typ. 30Hz to 400MHz)	Alternative bandwidths are available
Risetime	<1.4ns	
Simultaneous Dynamic Range @100MHz	>150dB in a 1Hz bandwidth	Refer to PPM Application Note AN014.
Transmitter Gain, Nominal	0dB	+20dB
Receiver Gain, Nominal	0dB	+10dB
Electrical Link Gain, Nominal	= [Tx Gain + Rx Gain] – [2 x Optical Loss] Optical Loss due to fibre is 0.4dB/km Optical Loss due to connectors is 0.5dB per connector typical Refer to PPM Application Note AN015 for a discussion on the gain calculation for the AC Analogue Fibre-Optic-Link systems.	
Gain Stability	Better than +/-0.25dB after 20 minutes warm up	
Receiver Gain Status LED	Green: Gain is within 3dB of [Tx Gain + Rx Gain] Alternating Red/Green: Gain is between 3dB and 10dB below [Tx Gain + Rx Gain] Red: Gain is less than 10dB below [Tx Gain + Rx Gain]	
Passband Flatness	40Hz-100kHz: +/-1.5dB >100kHz: +/-0.75dB	
Noise Figure @100MHz	<25dB for 0dB Tx Gain	<45dB for -20dB Tx Gain

	(typ. <22dB)	
Input P1dB @100MHz	>0dBm for 0dB Tx Gain (typ. >+2dBm)	>+20dBm for -20dB Tx Gain
Input IP3 @ 100MHz	>15dBm for 0dB Tx Gain	>+35dBm for -20dB Tx Gain
Absolute Maximum Input	>+15dBm, 5Vdc	
Input/Output Impedance, VSWR	50Ω ,≤ 2:1	
Operating Temperature	-10 ⁰ C to +40 ⁰ C	
Electrical Signal Connector	SMA female	
Optical Signal Connector	Angle Polish FC/APC Singlemode	
Data Channel		RS232 single channel 115kb/s. Other data formats and rates available.
Data Channel Optical Connector		ST Multimode 50/125
Supply Voltage	Refer to housing option	
Current Consumption	<250mA Tx, <150mA Rx	
Housing Options	Shielded Remote Module, Plug-In Module. Using a Converter Sleeve 75002 the Plug-In module can be supplied as a single Remote Module Refer to point2point Cases/Modules Datasheet for full details of these housing options.	
Plug-In Case Suitability	PRK1, PRK2, PRK3 Refer to point2point Cases/Modules Datasheet for full details of these case options.	