



AC *point2point*

point2point AC-coupled fibre optic link

- 250 MHz, 1.35 GHz, 2 GHz and 3 GHz upper 3 dB points
- Allows transmission of signals over 5 km
- Very low noise figure and high dynamic range
- Minimum detectable signal at output -155 dBm/Hz

Key military test standards

The AC *point2point* link supports standards testing for EMC, EMP, HIRF, NEMP etc., including key standards such as:

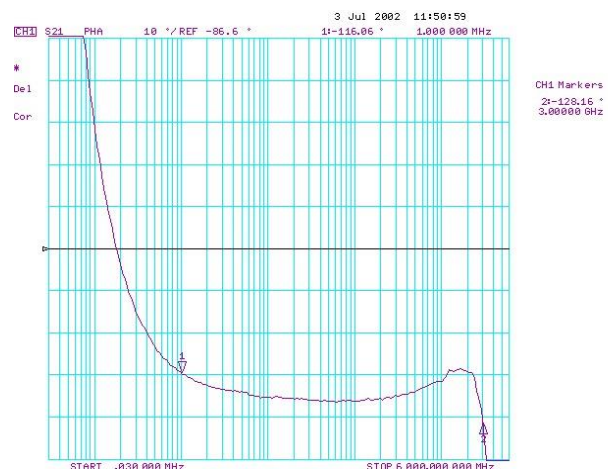
- MIL-STD-188-125
- MIL-STD-461G
- DEF STAN 59-188
- DEF STAN 59-411.

The AC *point2point* link is capable of transmitting any type of low level RF/analogue signals of up to 3 GHz over single mode fibre. Ideal for EMC measurements, HPM experiments or distributed timing, the modules are available in a fully EM-shielded casing or as a plug-in module for use with the various *point2point* housings.

When used in combination with the PPM battery switch and controller, it is possible to control the on/off status of battery powered modules to manage the operational lifetime.



Freq. response for 10 MHz to 3 GHz links (10 dB/div)



Phase response for 10 MHz to 3 GHz links (10 deg/div)

Due to our policy of continuing product development, these specifications are subject to change and improvement without notice.

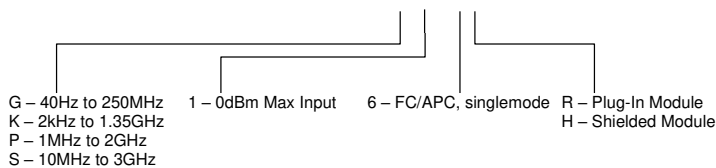
SPECIFICATIONS

AC Coupled Links	G series	K series	P series	S series
Passband	40 Hz to 250 MHz	2 kHz to 1.35 GHz	1 MHz to 2 GHz	10 MHz to 3 GHz
Gain Flatness Typical Maximum	±0.5 dB (100 Hz-250 MHz) ±3 dB	±0.5 dB (10 kHz-1.35 GHz) ±3 dB	±0.5 dB ±1.5 dB	±0.75 dB ±1.5 dB
Phase flatness	> 100 Hz : ±20°	> 5 kHz : ±20°	±20° (typ. ±5° for 1 MHz to 1.5 GHz)	±20° (typ. ±5° for 1 MHz to 1.5 GHz)
Rise time	<1.4 nS	<350 pS	<250 pS	<200 pS
Noise Figure (typical)	< 24 dB (22 dB) @ 100 MHz	< 25 dB (22 dB) @ 500 MHz	<25 dB (24 dB) @ 500 MHz < 30 dB @ 2 GHz	< 26 dB (24 dB) @ 500 MHz < 30 dB @ 3 GHz
Signal latency (1 m fibre)	10 nS			
Transmitter input impedance (VSWR)	50 Ω (<1.5:1)			
Receiver output impedance (VSWR)	50 Ω (<1.5:1)			
Input P1dB	>0 dBm @ 100 MHz	>0 dBm @ 500 MHz	>0 dBm @ 500 MHz	>0 dBm @ 500 MHz
Input IP3	>10 dBm @ 100 MHz	>10 dBm @ 500 MHz	>10 dBm @ 500 MHz	>10 dBm @ 500 MHz
Signal inversion	Inverting			
Operating temperature (NOTE: Specifications quoted at 25°)	-10 to +40 °C			
Optical path length	<1 m to ~4 km			
Optical budget	-3 dB will turn status LED red/green on RX module -10 dB will turn status LED red on RX module			
Electrical Connectors	SMA Female 50 Ω			
Optical Connectors	Singlemode: FC/APC Narrow Key			
Current Consumption @ 12 V	<250 mA for Transmitter Module, <150 mA for Receiver Module			
Front Panel Indication Transmitter Module Receiver Module	Power supply status & transmitter active Power supply status & received light level			

PART NUMBERS AND OPTIONS

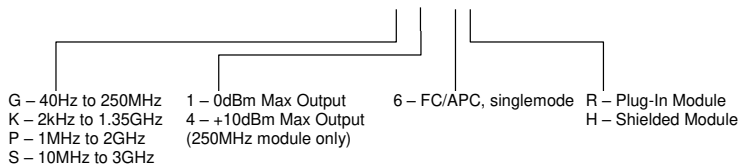
Transmitter

PAT-G1-6R



Receiver

PAR-G1-6R



*N.B. For information on dimensions, see the “casings and housing” section of the **point2point** accessories datasheet.*