



Features

- » Extremely Wideband >20 GHz
- » Complete TX and RX Modules
- » High Dynamic Range
- » Fully Integrated Modules
- » Customization Available

Applications

- » Replaces Coax Cable
- » Radio Over Fiber
- » Radio Astronomy
- » Remote Antenna Sites
- » Phased Array Radar
- » EW/ECM
- » Optical Delay Lines
- » SATCOM

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Description

The PSI-1600-20L Microwave Photonic Link series is a family of high-performance transmitters and receivers intended to replace coaxial cable or microwave repeaters for system application up to and beyond 20 GHz. Typically used in antenna remoting or RF/IF signal distribution applications, the PSI-1600-20L links are used in military systems, satellite communications, radio astronomy, optical delay lines, cellular/wireless systems and other RF related applications. Custom packaging and RF performance variations are also available. Please contact PSI for application specific requirements.

RF Link Performance Summary

Parameter	1601-20L	1602-20L	1603-20L	1604-20L	Units
Operating Frequency	.045 - 20	0.1 - 20	0.1 - 20	0.1 - 20	GHz
Link Gain	-32	0	0	32	dB
Noise Figure	41	10	42	10	dB
Input 1dB Comp.	17	-16	16	-16	dBm
Input IP3	27	-9	23	-11	dBm
Spur Free Dynamic Range	107	103	104	102	dB/Hz ^{2/3}
Gain Flatness	±1.5	±4	±4	±6	dB
In any 100 MHz Band	±0.5	±0.5	±0.5	±0.5	dB

Note: Typical RF link performance specifications at 5 GHz with 3m jumper at 25°C

Ordering Information

PSI Part Number	Description
PSI-1601-20L	Microwave Photonic Link <ul style="list-style-type: none"> • PSI-1600-20UT Transmitter Module • PSI-1600-20UR Receiver Module
PSI-1602-20L	Microwave Photonic Link <ul style="list-style-type: none"> • PSI-1600-20AT Transmitter Module w/ Preamp • PSI-1600-20UR Receiver Module
PSI-1603-20L	Microwave Photonic Link <ul style="list-style-type: none"> • PSI-1600-20UT Transmitter Module • PSI-1600-20AR Receiver Module w/ Postamp
PSI-1604-20L	Microwave Photonic Link <ul style="list-style-type: none"> • PSI-1600-20AT Transmitter Module w/ Preamp • PSI-1600-20AR Receiver Module w/ Postamp

Note: See individual transmitter and receiver module data sheets for further information

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