



Description

The PSI-1600-10L 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 12 GHz. Typically used in antenna remoting or RF/IF signal distribution applications, the PSI-1600-10L links are used in military systems, satellite communications, radio astronomy, optical delay lines, cellular/wireless systems and other RF related applications. The PSI-1601-10L link contains no RF amplifiers. The PSI-1602-10L link includes an RF pre-amplifier. The PSI-1603-10L link contains an RF post-amplifier. The PSI-1604-10L link contains both an RF pre-amplifier and RF post-amplifier.

Custom RF performance, packaging, connectors and link gain configurations are possible. **Please contact PSI with your application needs.**

Features

- Wide Operational and Instantaneous Bandwidth
- RF_{in} to RF_{out} Solution
- Complete TX and RX Modules
- High Dynamic Range
- Customization Available

Applications

- Replace High Loss Coax Cable
- Remote Antenna Sites
- Radio Over Fiber
- Radio Astronomy
- Phased Array Radar
- EW/ECM
- SATCOM
- RF Delay Lines

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RF Link Performance Summary

Parameter	PSI-1601	PSI-1602	PSI-1603	PSI-1604	Units
Operating Bandwidth	.045 - 12	0.1 - 12	0.1 - 12	0.1 - 12	GHz
Link Gain	-32	0	0	32	dB
Noise Figure	40	9	41	10	dB
Input IP3	20	-13	19	-14	dBm
Spur Free Dynamic Range	103	101	101	100	dB/Hz ^{2/3}
Gain Flatness	±3	±3	±3	±4	dB
In any 100 MHz band	±0.5	±0.5	±0.5	±0.5	dB

Note: Typical RF link performance specifications measured at 5 GHz with PSI-1600-10xR receiver module. Please see individual transmitter and receiver datasheets.

Ordering Information

PSI Part Number	Description
PSI-1601-10L	Microwave Photonic Link Includes: PSI-1600-10UT Transmitter Module PSI-1600-10UR Receiver Module
PSI-1602-10L	Microwave Photonic Link Includes: PSI-1600-10AT Amplified Transmitter Module PSI-1600-10UR Receiver Module
PSI-1603-10L	Microwave Photonic Link Includes: PSI-1600-10UT Transmitter Module PSI-1600-10AR Amplified Receiver Module
PSI-1604-10L	Microwave Photonic Link Includes: PSI-1600-10AT Amplified Transmitter Module PSI-1600-10AR Amplified Receiver Module

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