



**Description**

The PSI-2600-40UT is a high-performance microwave photonic transmitter providing wideband electrical to optical (E/O) conversion for RF input signals to >40 GHz. Along with a PSI-2600-40UR receiver module, the PSI-2600-40UT provides a complete fiber optic link solution designed to replace coaxial cable or microwave repeaters for applications in military systems, satellite communications, radio astronomy, optical delay lines, cellular/wireless base stations or other RF/Microwave related systems. Part of the PSI-2600-40L series of microwave links, the PSI-2600-40UT transmitter does not incorporate any RF pre-amplification.

Custom packaging, connectors and link gain configurations are also available. Please contact PSI with your application needs.

**Features**

- Wide Operational and Instantaneous Bandwidth
- RF<sub>in</sub> to RF<sub>out</sub> 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
- Delay Lines

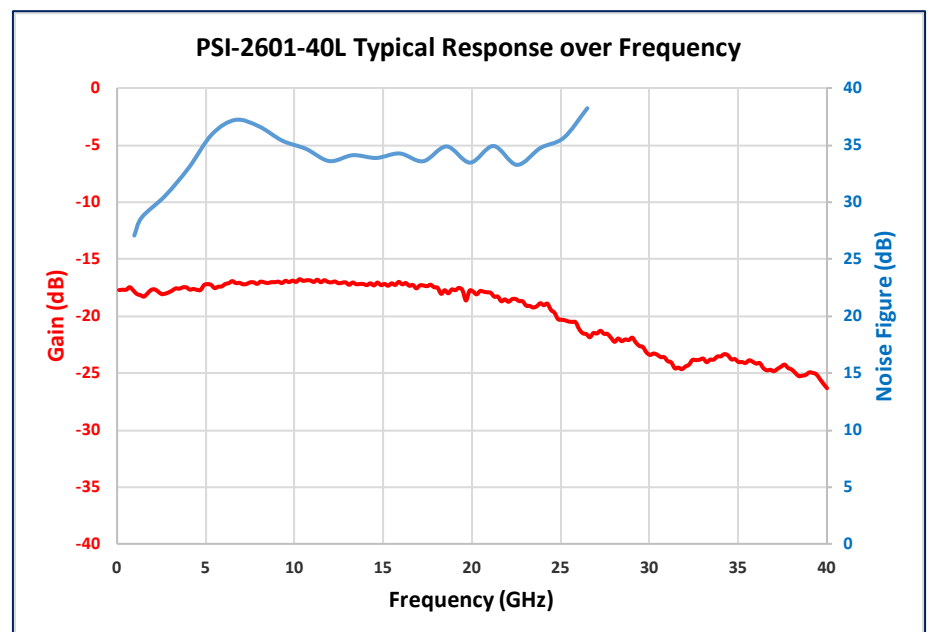
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**RF Link Performance Summary**

Parameter	Condition	Min	Typ	Max	Units
Operating Bandwidth		0.05		40	GHz
Link Gain	@ 10 GHz	-25	-17		dB
Noise Figure	@ 10GHz		35	38	dB
Input IP3	@ 10 GHz	-20	-17		dBm
Spur Free Dynamic Range	1 Hz band @ 10 GHz	100	104		dB/Hz <sup>2/3</sup>
Gain Flatness	1 - 40 GHz			±5	dB
	In any 100 MHz band			±1	dB

Note: RF link performance specifications with PSI-2600-40UR receiver module



**RF Characteristics**

Parameter	Min	Typ	Max	Units
Maximum RF Input			+20	dBm
Input 1dB Compression	+11			dBm
RF Input Impedance		50		Ohm
RF Return Loss	9.5	15		dB
RF Input Connector	2.4mm Female			

**Optical Characteristics**

Parameter	Min	Typ	Max	Units
Wavelength	1520	1550	1580	nm
Optical Power Out	1	6	10	mW
Optical Connector	FC/APC (see notes)			

Notes:

1. Contact PSI for other connector options
2. User supplied fiber optic interconnect cable should be singlemode Corning SMF-28 or equivalent
3. Optical cable return loss should be >55dB by using angled-polished optical connectors

**DC Power & 9-pin D-Connector Pin Out**

Pin	Description
1	+12 V <sub>DC</sub> at 80mA max
2	Ground
3	+5 V <sub>DC</sub> at 1.5A Max.
4	Ground
5	-5 V <sub>DC</sub> at 1.5A Max.
6	Laser Disable
7	Ground
8	Ground
9	NC

**Environmental Characteristics**

Parameter	Min	Typ	Max	Units
Operating Temperature	-10	25	60	°C
Storage Temperature	-20		70	°C

**Ordering Information**

Part Number	Description
PSI-2600-40UT	Transmitter Only
PSI-2601-40L	Link includes PSI-2600-40UT transmitter and PSI-2600-40UR receiver

**Mechanical Dimensions**

