

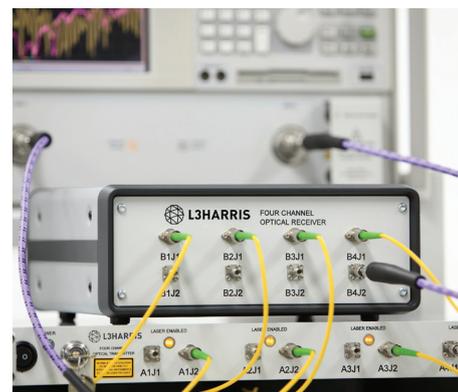


FOUR CHANNEL OPTICAL LINK

40 GHz bandwidth optical link suitable for antenna remoting and other applications

TECHNICAL SPECIFICATIONS

Frequency Range	0.5-40 GHz (2-20 GHz option available)
Maximum Insertion Loss	28 dB
Insertion Loss Slope	10 dB maximum
Ripple on Insertion Loss Slope	±1 dB maximum
Input P1dB	+17 dBm minimum
Maximum Input Power	+20 dBm
Spurious at -5dBm Input Power	-60 dBc
Harmonics at -5dBm Input Power	-60 dBc
VSWR	2.0:1 maximum
Warm Up Time	30 minutes maximum
Loss Stability After Warm Up	±0.5 dB
Transmitter Power Supply	+6 V ±0.5 V
Transmitter Current	9.0 A maximum
Monitor & Control Interface	RS-232
RF Connectors	K-type Female
Optical Connectors	FC/APC
Tx DC Power Connector	15-pin D-sub plug
Tx Monitor & Control Connector	9-pin D-sub plug
Operating Temperature	+10°C to +40°C (Contact L3Harris for other ranges)



KEY FEATURES

- > Frequency range 0.5-40 GHz
- > Flat frequency response
- > Low spurious output
- > Independent channel control and monitoring
- > 1U 19" rack mount transmitter module
- > Compact receiver module, only 271 mm x 257.4 mm x 102.6 mm

APPLICATIONS

- > Radar threat simulators
- > Automated test equipment
- > Flight line test equipment

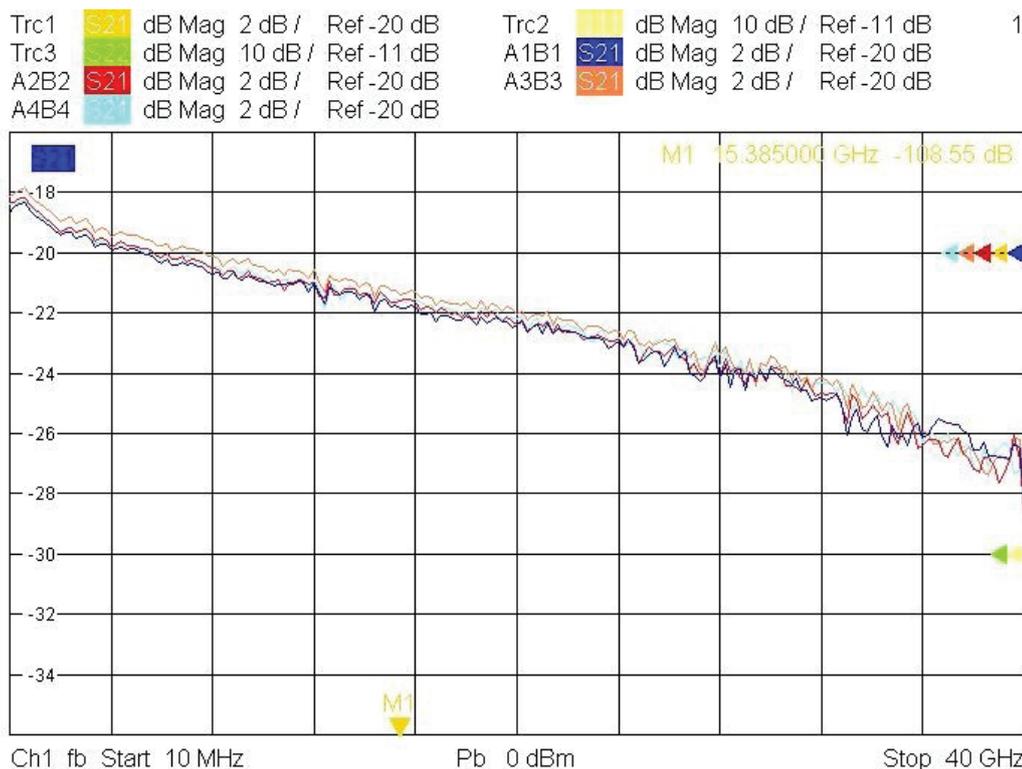
OPTIONS

- > 2-20 GHz option also available

The Four Channel Optical Link is a wideband microwave optical link catering for up to four RF inputs to the transmitter, each modulated onto an optical carrier across four separate channels. The receiver demodulates the four optical carriers to generate four separate RF outputs.

This link uses external modulation for maximum dynamic range across the full 40 GHz bandwidth. Each channel of the link is fully isolated with separate laser, modulator and photodetector.

The receiver module can be battery operated to allow for use in remote locations.



MATCHING BETWEEN CHANNELS

Typical gain of all four channels of the link shows good matching between the channels and a graceful continuous slope of the response across the band. The frequency slope and loss of the link is independent of the link length up to hundreds of metres of fibre.

Four Channel Optical Link

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L3Harris reserves the right to amend specifications in the light of continuing development.

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