

- **Analog RF Bandwidth to 4 GHz**
- **RF Transport up to 20KM**
- **Small Size**
- **High Dynamic Range**
- **Wide Bandwidth**
- **Low Noise**
- **Temperature Compensated**
- **Harsh Environment Options**
- **TTL Controllable On/Off**
- **1310nm, 1550nm, and CWDM Options**



Linear Photonics' Directly Modulated Fiber Optic Links provide high performance transmission of wideband RF signals up to 4 GHz over optical fiber. Featuring high reliability and small size, the DiLink transmitter and receiver modules are easily integrated into communications systems for a variety of applications including antenna remoting, radio-over-fiber, network infrastructure and multicarrier/subcarrier multiplexed analog transport.

All modules are easy to use, requiring no external tuning or alignment. They feature a single RF connector, a pigtailed optical connector, and a single DB-9 for power, control, and status/Built-in-Test (BIT) functions. Wide temperature range with environmental sealing options are also available.

1310nm and 1550nm wavelength options allow for WDM bi-directional transmission over a single fiber. CWDM wavelength options can be used to increase the channel count within a single fiber.

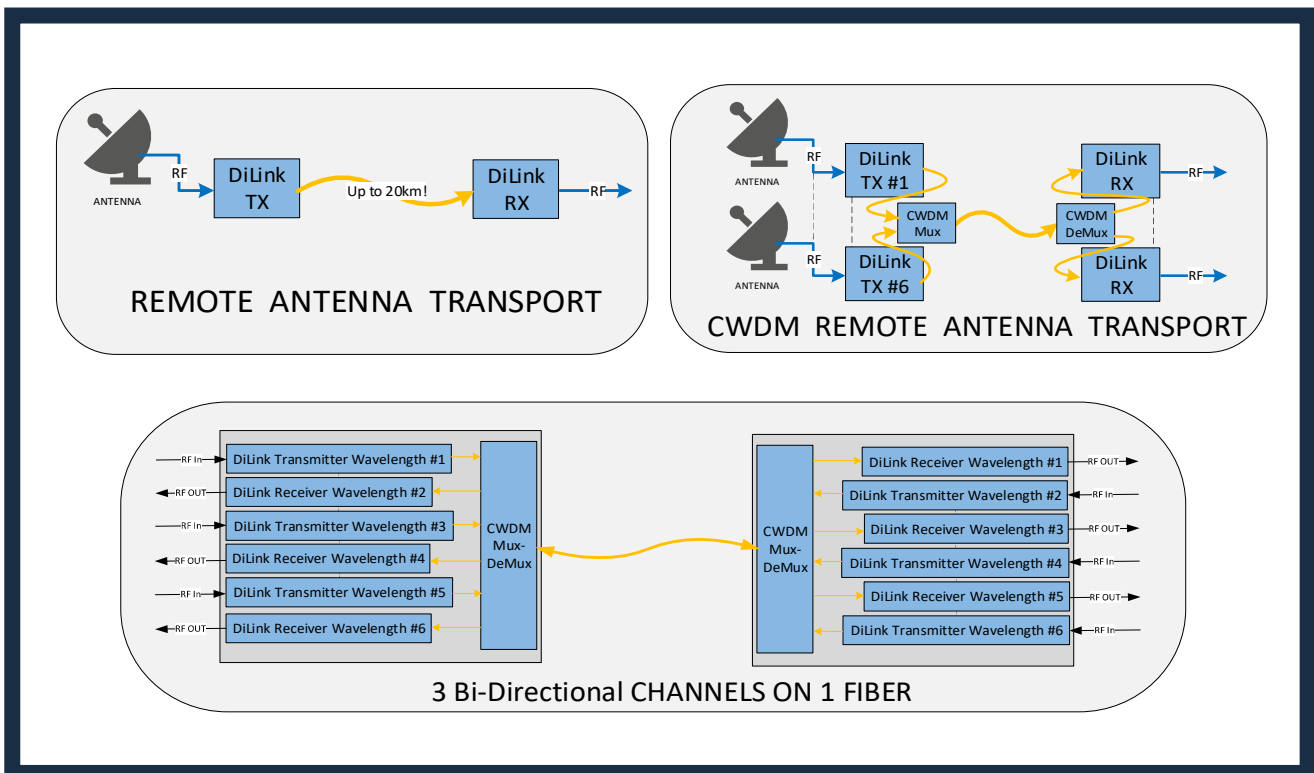
Style	Gain (dB)	Freq (MHZ)	Link Gain (dB) @ centerband	RF Input Compression (dBm)	RF Input IP3 (dBm)	Link Noise Figure (dB)	SFDR3 typical (dB/Hz ^{2/3})
W	0	100 to 1000	0 +/- 2	0	15	30	107
W	0	500 to 2500	0 +/- 2	0	15	30	107
W	0	1000 to 4000	0 +/- 2	0	12	30	105
W	15	100 to 1000	15 +/- 2	-6	10	30	104
W	15	500 to 2500	15 +/- 2	-6	10	30	103
W	15	1000 to 4000	15 +/- 2	-6	6	30	101
N	0	900 to 2250	0 +/- 2	4	17	30	108
N	0	2000 to 3400	0 +/- 2	2	12	28	106
N	15	900 to 2250	15 +/- 2	-1	13	30	105
N	15	2000 to 3400	15 +/- 2	-1	8	28	103

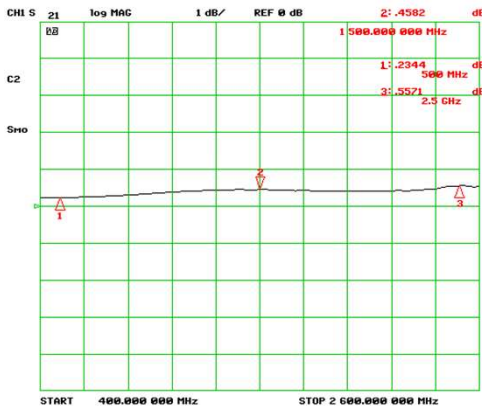
ALL UNITS:

Gain Variation over Temp	+/- 1 dB
Gain Flatness Full Band	+/- 1 dB
Gain Flatness over any 250 MHz	+/- 0.25 dB
RF Input/Output Return Loss	10 dB min
RF Connector	SMA Female

Absolute Maximum Ratings:

Storage Temperature	-40 to +85 °C
RF Input Level (TX)	+10 dBm
Optical Input Level (RX)	+5dBm
Power Supply Voltage(s)	±5%
Transmitter Power Consumption	3W
Receiver Power Consumption	3.5W





L-BAND LINK
Gain



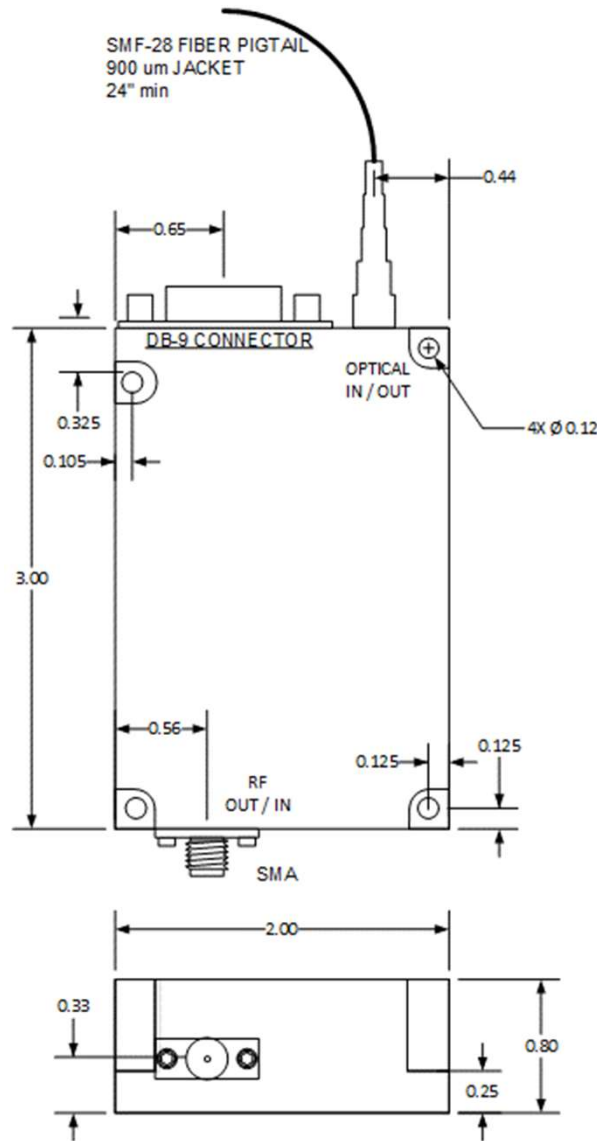
L-BAND LINK
Input Return Loss

DiLink ORDERING INFORMATION

D	L	m	w	s	f	g	c	v	t
example: DLT3W40FSM									
Transmitter									
1310 nm									
Wideband									
1000 to 4000 MHz									
0 dB Link Gain									
FC/APC									
Single Supply									
-40 to +70 °C									
m Module Type					g Link Gain				
T Transmitter					0 0 dB				
R Receiver					1 15 dB				
					C custom				
w Wavelength					c Connector				
3 1310					F FC/APC				
5 1550					S SC/APC				
C custom					C custom				
s Style					v Voltage				
W Wideband					M multiple supply				
N HDN/LN					(Receiver Only)				
I Obsolete - Contact Factory					+12, +5, -5 V				
f Frequency Range					S single supply				
1 Obsolete - Contact Factory					+5 V				
2 100 to 1000 (W style only)					t Temp Range				
3 500 to 2500 (W style only)					(Operating)				
4 1000 to 4000 (W style only)					C 0 to 50 °C				
5 Obsolete - Contact Factory					M -40 to +70 °C				
6 Obsolete - Contact Factory									
7 900 to 2250 (N style only)									
8 2000 to 3400 (N style only)									
C custom									



DiLink OUTLINE



DiLink PINOUT (D-SUB 9-Pin Male)		
	Function	Description
pin 1	+12V ±0.6V (Multi-Supply Only)	Power Supply Input (+12V ±0.6V)
pin 2	+5V ±0.25V	Power Supply Input (+5V ±0.25V)
pin 3	-5V ±0.25V (Multi-Supply Only)	Power Supply Input (-5V ±0.25V)
pin 4	ALARM OUT	TTL Low Output if Unit is in Alarm
pin 5	GROUND	Power Supply Ground
pin 6	OPTICAL POWER MONITOR	Analog Output 0.25V/mW
pin 7	POWER ON (Active LOW)	Must Ground This Pin to Enable Output
pin 8	LASER CURRENT MONITOR	Analog Output 100 mA/V (TX ONLY)
pin 9	N/C	