50 MHz – 21 GHZ FIBER OPTIC LINK
Laser Lab Center
LLC FO Link-21

FEATURES

- Bandwidth 50 MHz to 21 GHz
- Hermetical case
- No external control circuits required
- Transimpedance amplifier in both transmitter and receiver

APPLICATIONS

- Antenna remoting
- Local oscillator remoting
- Interfacility communication links

ELECTRICAL SPECIFICATIONS					
PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
Operating frequency	± 3 dB bandwidth		300 MHz		20 GHz
Gain	G	dB	0		10
Gain flatness	GF	dB	± 2		
Noise figure	NF	dB	8	15	20
Group delay	GD Peak-to-peak (>500 MHz)	ns		0.1	0.2
VSWR	Tx Input / Rx output.		2:1		
Phase noise	100 Hz offset	dBc		100	
Input power at 1 dB compression	IP1dB	dBm	0		
Output power at 1 dB compression	OP1dB	dBm			10
Output Third Order Intercept	IIP3	dBm	15		
Spurious-free dynamic range	At 15 GHz bandwidth	$dB/Hz^{2/3}$		100	
Maximum input power	No damage	dBm	10		
Maximum output power	Saturated	dBm	11		
RF connectors	SMA(female)				
Impedance	Input/Output	Ohms	50		

OPTICAL PERFORMANCE SPECIFICATIONS					
PARAMETERS	CONDITION	UNITS	MIN.	TYP.	MAX.
Fiber optic connectors	FC/APC				
Fiber	Single mode fiber 9/125 µm				
Optical power in fiber	Reference only	mW	3	5	9
Side mode suppression ratio		dB	30	40	45

DC POWER REQUIREMENTS(*)					
PARAMETERS	CURRENT	PIN #	MIN.	TYP.	MAX.
Transmitter with TEC «ON»	2.0 A (max.)	1, 4	18 V		36 V
	GND	2, 3			
Receiver	0.8 A (max.)	1, 4	18 V		36 V
	GND	2, 3			
* Optional DC power 220 V					