



RF – Optical Transmitter & Receiver



FEATURES

Transmitter

- DFB Laser Diode (With Isolator)
- High Speed Modulators
- Low Threshold Current is Preferred
- Output Power Monitoring for Stable Optical Power
- Wide Temperature Operation (-20°C~+60°C)

Receiver

- Low Noise floor & Low Back Reflection
- High Sensitivity & High Dynamic Range
- Alarm Circuit
- Wide Temperature Operation (-20°C~+60°C)

ABSOLUTE MAXIMUM RATINGS

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Operation of the device are not implied at these conditions in excess of those given in the operation section of the data

Parameter	Rating	Unit
Optical Input Power	7	dBm
RF Input Power	0	dBm
DC Supply Voltage	13	V
Operating Temperature	- 20 ~ + 70	°C
Storage Temperature	- 40 ~ + 80	°C

PIN CONFIGURATION

Transmitter Pin Description (9 Pin D-Sub)

Pin	Function	Pin	Function
1	N/C	6	LD MONITOR
2	GND	7	LD ALARM (Open Collector: Normal High)
3	Vcc(+12V)	8	N/C
4	485_A	9	N/C
5	N/C		

Receiver Pin Description (9-Pin D-Sub)

Pin	Function	Pin	Function
1	N/C	6	N/C
2	GND	7	N/C
3	Vcc(+12V)	8	PD MONITOR
4	N/C	9	PD ALARM (Open Collector: Normal High)
5	485_B		

- Modem Frequency: 36 MHz
- Data Rate: 9600 Bps / RS-485

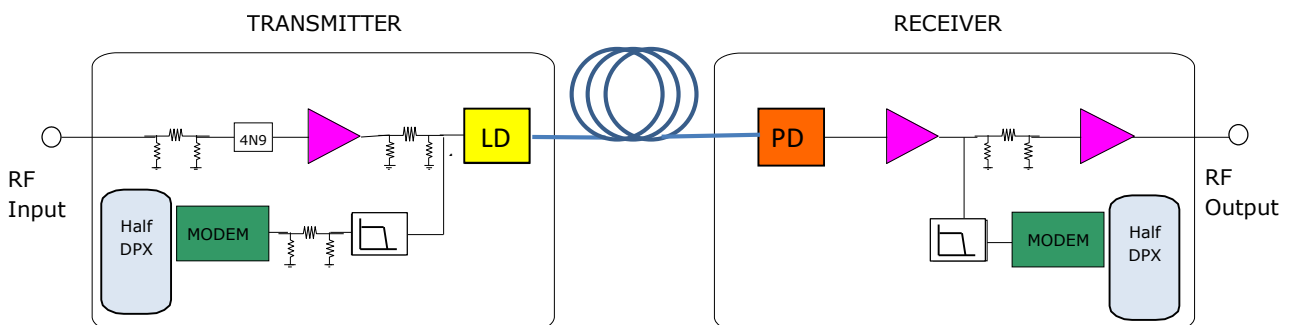
ELECTRICAL CHARACTERISTICS (T = 25°C)

Parameter		Unit	Min	Typ	Max	Note!
Optical Output Power	1310 nm	dBm	2	4	6	Transmitter
	1310 nm				7	Receiver
Wave Length	Transmitter	nm	1300	1310	1320	
	Receiver		1300	1310	1320	
RF Gain	50~500MHz	dB	-2	0	2	
Flatness	50~500MHz	dB			1	Peak-Peak Value
VSWR	Transmitter	S11			1,5	
	Receiver	S12				
IP3 (0dBm/total)		dBm	30			
Output Noise Floor		dBm/Hz			-135	
Directivity (Isolation)		dB	60			
Alarm	LD	dBm	-3			Normal High
	PD	dBm	-15			
Current	Transmitter	12V			250	
	Receiver	12V			350	
Directivity	Forward	dB	60			
	Reverse					
Gain Variation	+70°C	dB	-5			
	- 25°C	dB	-3			
Optical Connector		FC/APC				
RF Connector		SMA Female				
Supply Voltage		V	11,5	12	12,5	

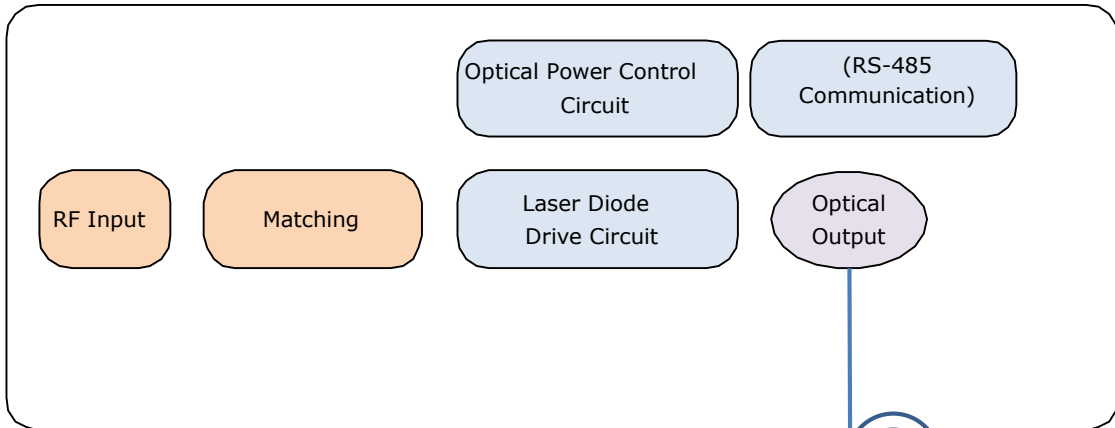
OPTICAL CHARACTERISTICS (T = 25°C)

Parameter		Symbol	Min	Typ	Max	Unit
Optical Output Power		P_0			4	mW
Wavelength	Transmitter			1310		nm
Optical Return Loss		O_{RL}	50			dB
SMSR.		SMSR	30			dBc
Optic Input Power to Receiver		OPin			4	mW
Fiber Connector		FC/APC				

BLOCK DIAGRAM



TRANSMITTER



RECEIVER

