

DAS Optical Module

DOU (Donor Optical Unit)



ROU (Remote Optical Unit)



The DOU, ROU is a linear, low noise, high performance, broadband optical transceiver designed for fiber optic wireless systems and RF applications. The frequency response is 50 MHz to 4200 MHz over single mode fiber. An internal WDM(CWDM optional) permits bidirectional transmission using a single fiber. The links have high dynamic range characteristics and a wide operating temperature range. The RF interface is via 50ohm SMA connector and SC/APC connector is available for low back reflection in optical connection. The transceiver provides a diagnostic and control function through a digital serial I2C or RS232 interface.

Features

- Supports multi-band / multi-operator solutions
- Optical Transceiver for 50MHz-4.2GHz Bandwidth Wireless Systems
- Bidirectional Transmission with 1.3 and 1.5 μ m DFB Lasers
- High Dynamic Range and Low Noise RF Front-End
- Automatic Optical Power Control
- Enables Simple Repeater Structure : ex) Automatic RF Gain Control is included in RF Optical Transceiver
- Including FSK Modem and RF Attenuator

Applications

- VHF / UHF / PCS / CDMA / GSM / 2G / 3G / LTE / Wimax / CBND
- In- building/Subway Systems
- DAS System



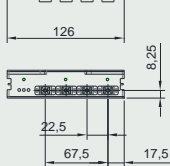
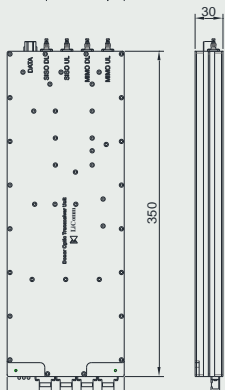
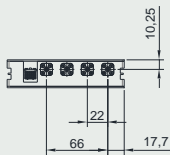
Electrical / Optical characteristics

Parameter	Model		Unit
	DOU	ROU	
Supply Voltage	+9	+28	V _{DC}
Operating Temperature Range (storage)	-10 ~ +65	-20 ~ +70	°C
Supply Current	1.5 >	0.5 >	A
Power Consumption	15	15	W
Output Optical Power	10 ± 1 / 1Port	7 ± 1	dBm
	4 ± 1 / 4Port		
Output Wavelength	1310	1550	nm

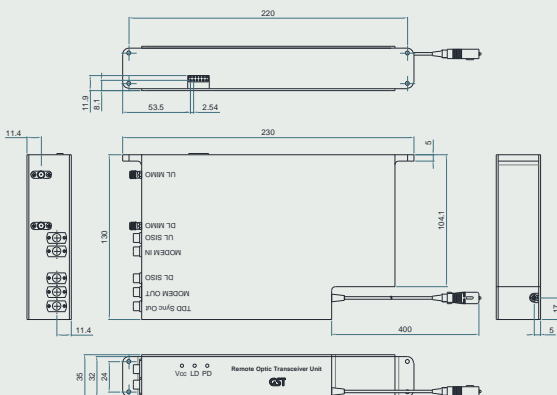
Outline Drawing

(The dimensions are in millimeters)

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ROU (Remote Optical Unit)



RF Characteristics

Parameter	Value	Unit		
Frequency	136 ~ 4200	MHz		
RF Gain	0 ± 1	dB		
Gain Flatness	VHF / UHF	2.0	dBp-p	
	600LTEB ~ 3.5GCBRS	1.5		
VSWR	VHF / UHF	2.5 :1 Max.	Input / Output	
	600LTEB ~ 3.5GCBRS	2.5 :1 Max.		
ATT.	Range	0~24	dB	
	Control Error	± 0.7	Step Size: 0.5dB	
	Test Frequency	850 / 2100	MHz	
TX-RX DIRECTIVITY	850 / 2600	55	dBc	
RF Frequency range	ID	Frequency	BW	MHz
	VHF/UHF	136 ~ 512	376	
	700A-B	703 ~ 748	45	
	L700	728 ~ 756	28	
	700A	758 ~ 803	45	
	L800	791 ~ 821	30	
	L800-B	851 ~ 881	30	
	800I	851 ~ 866	15	
	850C	869 ~ 894	25	
	900	925 ~ 960	35	
	900BR	943.5 ~ 960	16.5	
	2100A-B	1710 ~ 1755	45	
	1800	1805 ~ 1880	75	
	U2100-B	1920 ~ 1980	60	
	1900P	1930 ~ 1995	65	
	2100A	2110 ~ 2155	45	
	L2600	2110 ~ 2170	60	
	3150	23100 ~ 3200	100	
	3625	3575 ~ 3675	100	
	4150B	4100 ~ 4200	100	

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