

Fiber Optical RF Unit (for U)

Optical CATV Transmitter

The **OCT-10xx** is designed for forward path transmission of 1550 nm optical signal. Analogue video signal, QAM digital video signal, and QAM digital data signal are fed into the input of the **OCT-10xx** and converted into 1550nm optical signal and transmitted to HFC/CATV networks.

The **OCT-10xx** has one RF input port and one 10mW optical output port. Through LEDs and LCD display in the front panel, user can monitor input RF signal status as well as LD (Laser Diode) status.



Features

- 1550nm wavelength
- Transmits wide bandwidth of 47 MHz – 1002 MHz
- Very low inter-modulations
- Internal proprietary impedance match circuitry (75Ω)
- Transmit analog (CATV) video signal and digital data signal
- MGC (Manual Gain Control) and AGC (Auto Gain Control) function
- LCD and LED display to monitor current operating status
- Superior CNR, CSO and CTB performances
- RF test port in the front panel for input RF signal monitoring
- Front panel buttons for convenient control/monitoring
- Built-in TEC (Thermoelectric Cooler) controller
- Provided 19' 1U Rack
- Dual Power Supply Unit (AC or -48VDC)
- SNMP network management interface

Applications

- CATV broadcasting system
- Video overlay in passive optical networks (PON)

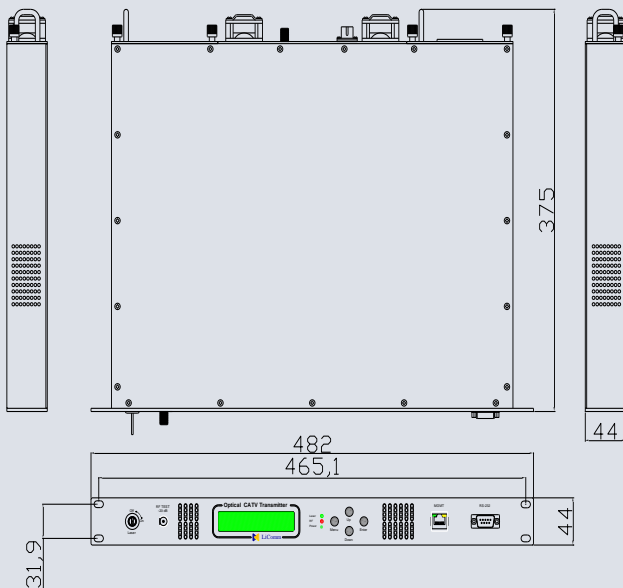
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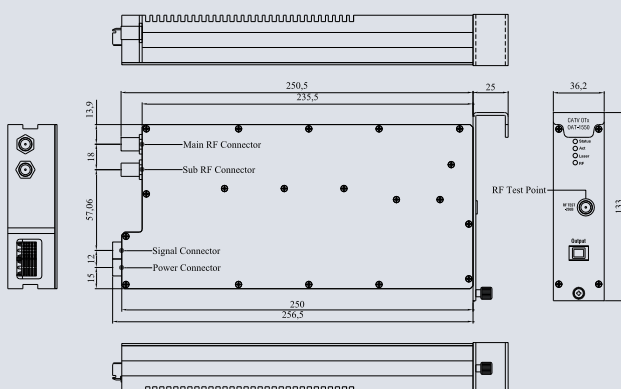
Mechanical Dimension

(The dimensions are in millimeters)

OCT-10xx-1R(482 X 375 X 44mm)



OCT-10xx-3C(36 X 282 X 133mm)



Electrical / Optical characteristics

Parameter	Specifications	Unit
Wavelength*	1528 ~ 1563	nm
Output Optical Power	9 ~ 11	dBm
Optical Input Return Loss**	< -40	dB
Side Mode Suppression Ratio	> 30	dB
Fiber Core / Cladding	9/25	μm
Operating Temperature Range	0 ~ 50	°C
Supply Voltage AC***	100~ 265	V _{AC}
Supply Voltage DC***	-48	V _{DC}
Power Consumption	< 40	W

* ITU-Grid

** Optical connector type : SC/APC connector

*** OCT-10xx-1R, Dual Power supply

RF Characteristics

Parameter	Specifications	Unit
Bandwidth	47 ~ 1002	MHz
Frequency Response	< 2	dBp-p
Input RF Signal level	10~20	dBmV
Input Impedance	75	Ohm
Input Return Loss	< -15	dB
RF Test Port	-21 ~ -19	dB
AGC Range	-5 ~ +5	dB
OMI Setup Range	-2 ~ +2	dB
MGC Range	-5 ~ +5	dB
Carrier to Noise Ratio (CNR) *	≥ 50	dB
Composite Second-Order (CSO) *	≥ 58	dBc
Composite Triple Beat (CTB) *	≥ 63	dBc
SBS suppression	≤ +17	dBm

* NTSC 77CH loading, 0dBm received optical power.

Test with Variable Attenuator and 15km of SMF28 fiber.

Ordering Information

OCT	-	XX XX	-	XX	-	XX
Band Width		10: 47~1000MHz		Package		Operation Range
Wavelength		18~62: ITU Channel X : Special(1563.5)		3C:3U Card Type 1R:1U Shelf Type		10:10km 15:15km

LiComm Co., Ltd.

Address

109, Baekja-ro Idong-eup, Cheoin-gu, Yongin-Si,
Gyeonggi-Do, 17126, Korea

Tel: +82-31-323-1926

Fax: +82-31-323-2447

E-mail: sales@licomm.com

Website : www.licomm.com