

RET-1550S

**Dual Optical Outputs 1550nm External Modulated Optical Transmitter
(SBS 13, 16, 18dBm, Linewidth \leq 1.0 MHz)**



Overview

RET-1550S series is a cost-effective 1550nm externally modulated optical transmitter, apply to small and medium-sized cable television center; it adopts narrow linewidth (Typ.=1MHz), low noise, and continuous wave DFB laser as its light source, adopts CATV special LiNbO₃ external modulator to modulate optical signal. Based on these innovation technology, it can have CSO -65 dB, CTB -65 dB, CNR 53 dB outstanding performance, SBS 13dBm, 16dBm, 18dBm adjustable, satisfy CATV high quality video, audio and data transmission. This model has RS232 communication interface for perfect SNMP control, and support back-up power supply.

RET-1550S: Standard type, dual fiber output CATV work wavelength, 1MHz laser linewidth, SBS13dBm, 16dB, 18dBm adjustable, SNMP optional.

RET-1550ST: Standard type, dual fiber output ITU work wavelength, 1MHz laser linewidth, SBS13dBm, 16dB, 18dBm adjustable, SNMP optional.

Application

1. Apply to second-grade service area of sub-station, with its high quality, high reliability and high cost-effective features to provide RFTV, IPTV, VOD services.
2. Apply to small and medium-sized cable television center, high quality but low cost to solve trunk transmission and distribution transmission problem.

Features

1. External modulator technology without laser chirp, extremely low dispersion distortion.
2. Narrow linewidth (typ.=1MHz), low noise figure, DFB continuous wave laser.
3. Max 862MHz/1080MHz work bandwidth option.
4. Excellent CTB, CSO and CNR.
5. SBS 13dBm, 16dBm, 18dBm adjustable.
6. Support ITU wavelength.
7. AGC/MGC mode is optional at spot, OMI optional at spot.

8. RS232 communication interface and SNMP network management.
9. Back-up power supply optional.
10. Chassis temperature automatically control.
11. High cost-effective 1550nm external modulated optical transmitter.

Datasheet

Parameter	Unit	Index
Optical Parameter		
Operating Wavelength	nm	1548~1563nm ITU wavelength
Linewidth	MHz	≤1.0
Side mode suppression ratio	dB	≥45
Equivalent noise intensity	dB/Hz	≤-160
Output port number	/	2
Output power	dBm	3/5/6/7/9
Return loss	dB	≥60
Optical Connector	/	SC/APC, FC/APC
RF Parameter		
Work Bandwidth	MHz	47~862/1000/1080
Flatness	dB	± 0.75
Input Level	dBuV	78~88 (AGC)
Input Impedance	Ω	75
RF Return Loss	dB	>16
RF Port	/	F-Female
Link Parameter		
Test Channel Number	/	PAL-D/60CH
CNR1	dB	≥53 (Back to Back)
CNR2	dB	≥51.5 (50KM optical fiber, 0dBm receiving)
CTB	dB	≤-65
CSO	dB	≤-65
SBS	dBm	13, 16, 18
General Parameter		
Power Supply	V	90~265VAC or 48VDC
Power Consumption	W	≤50
Operating Temp.		-5~65
Storage Temp.		-40~85

Operating relative humidity	%	5~95
Communication interface	/	RS232
SNMP network management interface	/	RJ45
Dimension	mm	483*368*44

Ordering Information

Model	Work Wavelength	Optical Output Power (dBm)
RET-1523S	1548~1563nm	Optical output power ≥3dBm
RET-1525S		Optical output power ≥5dBm
RET-1526S		Optical output power ≥6dBm
RET-1527S		Optical output power ≥7dBm
RET-1529S		Optical output power ≥8.5dBm
RET-1523ST	1528~1563nm Specified ITU wavelength	Optical output power ≥3dBm
RET-1525ST		Optical output power ≥5dBm
RET-1526ST		Optical output power ≥6dBm
RET-1527ST		Optical output power ≥7dBm
RET-1529ST		Optical output power ≥8.5dBm

Model	Work Frequency		SNMP		Power Supply		Number of Power Supply		Optical Connector		ITU Grid Channel No.	
	86	47~862 MHz	0	No	11	110V AC	S	Single Power Supply	SC	SC/APC	23	1558.98nm
RET-1550S(T)	10	47~1000 MHz	1	Build in	22	220V AC	D	Dual Power Supply	LC	LC/APC	30	1553.33nm
	18	47~1080 MHz			48	-48V DC			FC	FC/APC	37	1547.72nm
For Example	RET-1527ST-86-1-11-D-SC-23											

Appendix

C-Band Wavelength list:

ITU-TG.692 Standard Wavelength

Channel Number	Frequency (THz)	Wavelength (nm)
61	196.1	1528.77
60	196.0	1529.55
59	195.9	1530.33
58	195.8	1531.12
57	195.7	1531.90
56	195.6	1532.68
55	195.5	1533.47
54	195.4	1534.25

53	195.3	1535.04
52	195.2	1535.82
51	195.1	1536.61
50	195.0	1537.40
49	194.9	1538.19
48	194.8	1538.98
47	194.7	1539.77
46	194.6	1540.56
45	194.5	1541.35
44	194.4	1542.14
43	194.3	1542.94
42	194.2	1543.73
41	194.1	1544.53
40	194.0	1546.12
39	193.9	1546.92
38	193.8	1547.72
37	193.7	1548.51
36	193.6	1549.32
35	193.5	1550.12
34	193.4	1550.92
33	193.3	1551.72
32	193.2	1552.52
31	193.1	1553.33
30	192.9	1554.13
29	192.8	1554.94
28	192.7	1555.75
27	192.6	1556.55
26	192.5	1557.36
25	192.4	1558.17
24	192.3	1558.98
23	192.2	1559.79
22	192.1	1560.61
21	192.0	1561.42
20	191.9	1562.23
19	191.8	1563.05
18	191.7	1563.86