



NE5200-1G

1550nm Single-optical-output Externally- modulated Transmitter



Features

- 1 RU, 19" rack-mount format
- 45 to 1002 MHz forward bandwidth
- Patented RF predistortion circuit for excellent CNR and low distortion performance
- Single optical output >8.5 dBm
- Fixed 13 dBm SBS threshold
- Microprocessor control and monitoring
- Automatic/Manual gain control mode
- Front panel LCD display
- RS485 or SNMP control interface

Applications

- CATV long-distance transmission
- FTTx WDM
- Broadband video and data transmission

Product Description

The Infomax NE5200 Series is a family of high performance 1550 nm externally-modulated transmitter for CATV applications. NE5200 series is in a convenient 1 RU 19" format and it provides a cost effective solution with outstanding performance. It delivers up to 8.5 dBm with narrow optical line-width.

When it is linked with one or more EDFAs, NE5200 offers high CNR for long distance transmission. With Infomax's patented RF pre-distortion circuit, NE5200 offers excellent CSO and CTB performance. NE5200 has single optical output and fixed SBS threshold of 13 dBm, and it is designed to meet the requirements of FTTx and C-band WDM applications.

This family of transmitters is a part of the full complement of products developed by Infomax to support and enhance the deployment of traditional HFC, passive HFC, and fiber to the home (FTTH) Networks.



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Optical Specifications

Optical Wavelength	1550±10 nm or 100GHz ITU-T wavelengths between 1527.99 and 1564.68 nm
Optical Output Level	≥8.5 dBm
Optical Output Ports	1
SBS Suppression Level	Fixed 13 dBm

RF Specifications

Frequency Range	45~1002 MHz
Flatness	±0.75 dB (45~1002MHz)
Input RF Power Level	15-20 dBmV/ch with AGC control (OMI/ch=±3±0.25%) or nominal 20 dBmV/ch (@77-ch loading) with MGC control
Input Impedance	75 ohm
Input Return Loss	≥16 dB
Test Point	-20±1 dB relative to RF input

General Specifications

Operation Temperature Range	0~50 degC
Storage Temperature Range	-20~60 degC
Power Supply	90~260 VAC, 50/60 Hz or -48 VDC
Power Consumption	≤50W
Dimension in mm	350Dx485Wx45H for RS-485/single AC or 447Dx485Wx45H for SNMP
Control Interface	RS-485 or SNMP
Weight	<6.5 Kg

Ordering Information

NE5200-1G-xx-yy-zz-pp-qq-rr

xx	Optical Connector	xx=SS: SC/APC with shutter; xx=FC: FC/APC;
yy	Optical Wavelength	yy=16~62: 100GHz ITU-T channel #yy; yy=nn: not specified;
zz	Optical Output Level	zz=08: ≥8.5 dBm;
pp	SBS Suppression Level	pp=13: 13 dBm;
qq	Control Interface	qq=RS: RS-485; qq=SN: SNMP;
rr	Power Supply	rr=SA: single AC; rr=DA: Dual AC; rr=SD: single DC;



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Link Performance

	Link Condition	CNR	CSO	CTB
78-ch NTSC Analog Only	B-2-B	53.5	65	63
	SBS13-2	52.0		
78-ch NTSC Analog + 75-ch QAM (550~1002MHz)@-6dB	B-2-B	52.0	65	65
	SBS13-2	50.5		
59-ch PAL Analog Only	B-2-B	53.5	65	63
	SBS13-2	52.0		
59-ch PAL Analog + 56-ch QAM (550~1002MHz)@-6dB	B-2-B	52.0	65	65
	SBS13-2	50.5		

Link Conditions

	Launched Power after Booster EDFA	Fiber Length of 1st span	Launched Power after In-line EDFA	Fiber Length of 2nd span	Received Power
B-2-B	-	-	-	-	0 dBm
SBS18	18 dBm	50 km	-	-	0 dBm
SBS16	16 dBm	65 km	-	-	0 dBm
SBS13-1	13 dBm	50 km	13 dBm	50 km	0 dBm
SBS13-2	13 dBm	50 km	-	-	0 dBm

Notes:

- (1) The noise figure of EDFA is 5.0 dB.
- (2) The minimum power into booster EDFA and in-line EDFA are 7.0 dBm and 3.0 dBm, respectively.
- (3) The equivalent input noise of optical receiver is $<7 \text{ pA/Hz}^{0.5}$, and optical responsivity is $\geq 0.90 \text{ A/W}$.
- (4) SMF-28 or equivalent is used.