



NE5100

1550nm Economic Externally-modulated Transmitter



Features

- 1 RU, 19" rack-mount format
- 45 to 870 MHz forward bandwidth
- Patented RF predistortion circuit for excellent CNR and low distortion performance
- SBS threshold of 16 dBm typically
- Unique simultaneously SBS/SPM suppressing for point-to-point and point-to-multiple application
- Microprocessor control and monitoring
- Automatic/Manual gain control mode
- Front panel LCD display
- RS485 or SNMP control interface

Applications

- HFC
- FTTx
- Broadband video and data transmission

Product Description

The Infomax NE5100 Series is a family of economic 1550 nm externally-modulated transmitter for CATV applications. The NE5100 series is in a convenient 1 RU 19" format and it provides a cost effective solution with outstanding performance. It delivers up to 9 dBm with narrow optical line-width.

When it is linked with one or more EDFAs, NE5100 offers high CNR for long distance transmission. With Infomax's patented RF pre-distortion circuit, NE5100 series offers excellent CSO and CTB performance.

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	≥7 dBm or ≥9 dBm
Optical Output Ports	2
SBS Suppression Level	Fixed or adjustable 13/16/18 dBm

RF Specifications

Frequency Range	45~870 MHz
Flatness	±0.75 dB (45~870 MHz)
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

Link Performance

Frequency Plan	77 NTSC analog channels or 60 PAL analog channels
Transmission Configuration	EDFA (NF≤5.0dB)+ 65km SMF-28 fiber+ 0dBm Rx (EIN≤7.0pA/√Hz)
SBS Suppression Level	16 dBm
CNR	51 dB
CSO	≤ -63 dBc@ port 1; ≤ -61 dBc@ port 2;
CTB	≤ -63 dBc

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	≤75W
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

NE5100-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=07: ≥7 dBm; zz=09: ≥9 dBm;
pp	SBS Suppression Level	pp=13: 13dBm; pp=16: 16dBm; pp=18: 18dBm;
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;