



NE7000/NE7100 Optical DBS Transmitter and Receiver



Features

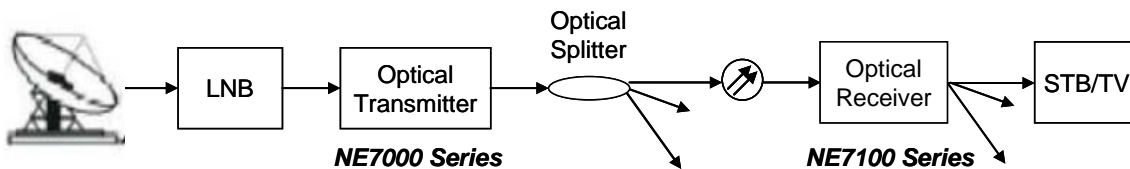
- Optical transmitter and receiver pair for satellite signals distribution
- Wide bandwidth from 47 to 2600 MHz
- Optional automatic gain control for transmitter
- Built-in supply voltage 12 or 18 volt to LNB
- Compact package with SC/APC or FC/APC connector
- RoHS compliance

Applications

- Satellite Signals Distribution

Product Description

For multi-dwelling units (MDUs) environment, fiber optics technology promises more reliable wide bandwidth features as well as very low signal attenuation (for example, <0.4 dB/km @1310nm, and <0.25 dB/km @1550nm) through long distance transmission or wide area distribution. The optical transmitter (NE7000 series) and receiver (NE7100 series) are designed for transmission and distribution of direct broadcast satellite (DBS) signals for a following exemplary environment.





NE7000/NE7100 Optical DBS Transmitter and Receiver

Optical Specifications

	NE7000 Transmitter	NE7100 Receiver
Optical Wavelength	1310±20 nm or 1550±15 nm or CWDM/DWDM	1290~1610nm
Optical Output Level	1 or 5 dBm typ.	
Optical Input Level		-13~+4 dBm
Optical Return Loss	>55 dB	>55 dB

RF Specifications

	NE7000 Transmitter	NE7100 Receiver
Operating Frequency	47~2600 MHz	47~2600 MHz
Flatness	±2 dB	±2 dB
Nominal Composite RF Input	-30 dBm	
Nominal Composite RF Output		-30 dBm@13dB optical link budget
Impedance	75 ohm	75 ohm
RF Return Loss	≥12 dB	≥12 dB

Link Performance

Link Gain	≥26 dB@-30 dBm/ch RF power and the transmitter output power is received directly
Third-order Inter-modulation Distortion (IMD3)	≤ -60 dBc@2 unmodulated carriers (f1=1000 MHz, f2=1100 MHz), RF power= -30 dBm per carrier
CNR	≥22 dB@-40 dBm/ch RF power and -13 dBm optical received power (27 MHz bandwidth is assumed)

General Specifications

	NE7000 Transmitter	NE7100 Receiver
Operation Temperature Range	0~50 degC	0~50 degC
Storage Temperature Range	-20~60 degC	-20~60 degC
Power Supply	9~18 VDC	9~18 VDC
Transmitter Power Consumption	5.4W typ. without LNB 12/18 VDC power supply	
Receiver Power Consumption		4.1W typ.
Dimension in mm	76Dx146Wx28H	76Dx146Wx28H
Weight	320±15 g	320±15 g

Ordering Information

NE7100-x-yy

x	Operating Frequency	x=A: 950~2050MHz; x=B: 250~2050MHz; x=C: 47~2050MHz; x=D: 47~2600MHz;
yy	Optical Connector	yy=SS: SC/APC; yy=FC: FC/APC;



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NE7000-xxxxx-y-zz-pp-q

xxxxx	Wavelength and Optical Power	xxxxx=01301: 1310nm/1dBm (FP Laser) xxxxx=01305: 1310nm/5dBm (DFB Laser) xxxxx=01501: 1550nm/1dBm (DFB Laser) xxxxx=01505: 1550nm/5dBm (DFB Laser) Please contact with factory for CWDM/DWDM request
y	Operating Frequency	y=A: 950~2050MHz; y=B: 250~2050MHz; y=C: 47~2050MHz; y=D: 47~2600MHz;
zz	Optical Connector	zz=SS: SC/APC; zz=FC: FC/APC;
pp	LNB Supply Voltage	pp=12: 12 Volt; pp=18: 18 Volt; pp=NO: No DC Voltage;
q	AGC Function	q=A: AGC (Automatic Gain Control); q=M: MGC (Manual Gain Control);