



## Digital Microwave Radio

- All Indoor Architecture (1+0, 1+1, 2+0)
- 4400 MHz - 13 GHz
- Modulates QPSK to 256 QAM
- Software Selected Bandwidth 3.5 - 56 MHz
- 2 - 700 Mbps Data Rates
- Powerful ATPC, XPIC, Adaptive Modulation
- Full-featured Advanced Ethernet
- Comprehensive Network Management, Web Server, & SNMP
- All Interfaces Nx E1/T1, Gigabit Ethernet, 2 x OC3, DS3, NxDS3, Integrated Add/Drop Mux, OC3
- Up to 37 dbm Output Power
- Standard TDM and Ethernet Mix Programmable
- Ring and Consecutive Point Architecture

The NX-GEN-S is an advanced software-defined digital microwave radio that offers scalable configurations and the highest value in the point-to-point microwave marketplace.

This carrier class product transports a programmable mix of native TDM and IP traffic separately, ensuring a seamless transition from legacy TDM networks to an all-IP network.

The integrated “Add and Drop” multiplexer allows DS3/28DS1, SDH/63E1, add/drop operation. The advanced QoS / Ethernet features deliver secure LAN / WLAN networks.

The comprehensive NMS / Web Server / SNMP features enable the NX-GEN-S to be integrated with existing managed networks.

## GENERAL

<b>Frequency Range (GHz)</b>	4.4-5.0; 5.4-7.2; 7.2-7.9; 7.9-8.5; 10.25-11.75; 12.75-13.50 GHz
<b>TX Output Power</b>	Standard +30 dBm; Optional 4.4-8.5 GHz +37 dBm 1.5 db less for 256 QAM
<b>Modulation Type</b>	QPSK - 256 QAM
<b>Emission Bandwidth</b>	7-56 MHz
<b>Aggregate Data Rate</b>	Up to 350 Mbps
<b>Ag. Data Rate (XPIC)</b>	Up to 700 Mbps
<b>Payload</b>	1-64/84 x E1/T1 + Scalable Ethernet, 1-350 Mbps Scalable Ethernet + n x E1/T1 Wayside
<b>FEC</b>	Options: E3, GiGE, STM-1, DS3, 1/2 OC3, DVB-ASI Trellis Coded Modulation concatenated with Reed-Solomon Coding
<b>Equalizer</b>	Blind adaptive equalizer, DFM > 50 dB
<b>Immediate Frequency</b>	350 MHz Transmit / 140 MHz Receive
<b>IF (IDU to RF) Cable</b>	RG-8 or LMR-200 (for up to 100 m)
<b>IF Cable Connector</b>	N-Type Female (ODU) / TNC Female (IDU)
<b>Input Voltage</b>	-72 to -36 VDC

## NETWORK MANAGEMENT

<b>Support</b>	SNMP, Fully featured MIB, Web-based GUI, Embedded HTML server, CLI
<b>Interface Connector</b>	10/100Base TX RJ-45

## PAYLOAD CAPACITY

<b>1-64/84 x E1/T1</b>	Full Duplex 2048 kbps (E1) 1544 kbps (T1)
<b>Scalable Ethernet</b>	Scalable up to 350 Mbps
<b>DS3, E3/GiGE, STM-1</b>	Full Duplex 44.736 Mbps (DS3) 34.368 Mbps (E3) 51.84 Mbps , 155 Mbps

## PAYLOAD CONNECTIONS

<b>DS3, STM-1, E3, DVB-ASI</b>	BNC or Fibre
<b>GIGE</b>	RJ-45 or SFP
<b>14 x E1/T1</b>	Molex DB60F
<b>2 x E1/T1</b>	RJ-48C
<b>Scalable Ethernet</b>	RJ-45

## VOICE / DATA SERVICE CHANNEL

<b>Voice Interface</b>	6 wire, PTT handset
<b>Data Rate</b>	64 kbps
<b>Data Format</b>	RS232/RS422
<b>Voice/Data Connector</b>	RJ-45

## ENVIRONMENTAL

<b>Temperature</b>	-30°C to 55°C
<b>Relative Humidity</b>	0 to 95% non-condensing
<b>Altitude</b>	4500m

## MECHANICAL

<b>Size</b>	445W x 238.5 x 29.7 mm (2RU)
<b>Weight</b>	3.4 kg.

### RX Threshold (10E-6)

Data Rate (Mbps)	Channel Bandwidths		
	10	28	56
14	-93.1		
27	-85.8	-90.3	
36	-83.1	-89.1	
45	-79.6	-85.1	-88.1
54	-76.4	-84.4	-87.4
63	-70.2	-82.2	-85.2
100		-78.7	-81.7
125		-75.2	-80.7
150		-71.9	-79.9
175		-67.3	-76.3
200			-75.4
250			-72.2
300			-68.9
350			-64.3

### Color Key

QPSK	16-QAM	32-QAM
64-QAM	128-QAM	256-QAM