NX-GEN-T

Digital Microwave Radio

- Split Indoor/Outdoor Architecture (1+0, 1+1, 2+0)
- 6 - 38 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 DVB-ASI, Nx E1/T1, Gigabit Ethernet, 2 x OC3, DS3, NxDS3, Integrated Add/Drop Mux, OC3
- Up to +30 dbm Output Power
- Standard DVB-ASI, TDM and Ethernet Mix Programmable
- Ring and Consecutive Point Architecture

The NX-GEN-T 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-T to be integrated with existing managed networks.

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NX-GEN-T

SPECIFICATIONS

GENERAL

Frequency Range (GHz)	6 - 38 GHz (ITU-R standard bands)
TX Output Power	
6-13 GHz	+30dBm QPSK; +27dBm 64QAM; +24 dBm 256 QAM
13-26 GHz	+26dBm QPSK; +23dBm 64QAM; +20 dBm 256 QAM
28-40 GHz	+23dBm QPSK; +20dBm 64QAM; +17 dBm 256 QAM
Modulation Type	QPSK - 256 QAM
Emission Bandwidth	7-56 MHz
Aggregate Data Rate	Up to 350 Mbps
Ag. Data Rate (XPIC)	Up to 700 Mbps
Payload	1-64/84 x E1/T1 + Scalable Ethernet, 1-350 Mbps Scalable Ethernet + n x E1/T1 Wayside Options: E3, GiGE, STM-1, DS3, 1/2 OC3, DVB-ASI
FEC	Trellis Coded Modulation concatenated with Reed-Solomon Coding
Equalizer	Blind adaptive equalizer, DFM > 50 dB
Immediate Frequency	350 MHz Transmit / 140 MHz Receive
IF (IDU to RF) Cable	RG-8 or LMR-200 (for up to 100 m)
IF Cable Connector	N-Type Female (ODU) / TNC Female (IDU)
Input Voltage	-72 to -36 VDC

NETWORK MANAGEMENT

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

PAYLOAD CAPACITY

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

PAYLOAD CONNECTIONS

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

VOICE / DATA SERVICE CHANNEL

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

ENVIRONMENTAL

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

MECHANICAL

IDU Size	445W x 238.5 x 14.8 mm (1RU)
Weight	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

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