

# NX-GEN-S 400

FCC & Industry Canada

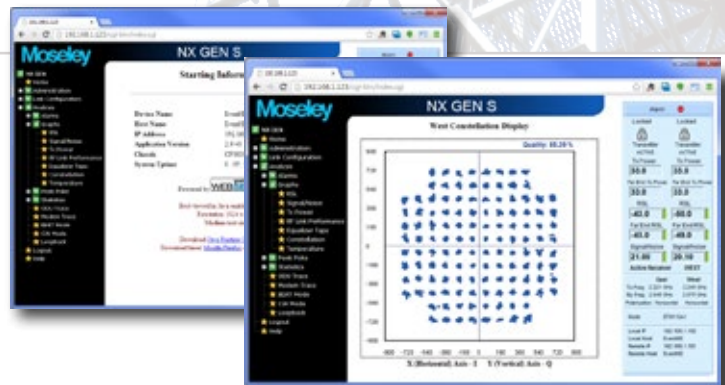


## Licensed Point-to-Point 400 MHz Microwave Radio

High quality Digital Radios with a common Control/Mux Indoor Unit offering multiple configurable Data Interfaces, that can be paired with interchangeable, separate RF Units from 400 Mhz to 38 Ghz allowing data rates of 64 Kb/s up to 150 Mb/s.

### FEATURES

- Fractional T1
- 2 x T1 Standard Interfaces
- Ethernet with VLAN and OoS
- XPIC Doubles Capacity
- Data Rate Configured to Customer Requirements
- Frequency-agile within each band
- Flexible Bandwidth
- SNMP-NMS with constellation display
- Modulation Schemes QPSK to 128 QAM



The browser-based NX-GEN-S Network Management System features...

- SNMP VERSION 1, 2 and 3
- BUILT-IN WEB SERVER
- REMOTE MONITORING
- MULTILEVEL ACCESS AND PERMISSIONS
- NETWORK DATA ENCRYPTION
- CONSTELLATION DISPLAY

# NX-GEN-S 400

## SPECIFICATIONS

### SYSTEM

<b>FREQUENCY</b>	414-485 Paired with 419-420 MHz (fully synthesized) For all other frequencies, consult factory.
<b>STEP SIZE</b>	1 kHz
<b>CHANNEL BANDWIDTH</b>	25-200 KHz Mode and modem option
<b>DATA RATES</b>	30 - 1000 Kbps (depending on Modulation and Bandwidth)
<b>MODULATION</b>	QPSK 7/8, 16 QAM, 32 QAM, 64 QAM, 128 QAM
<b>TEMPERATURE RANGE</b>	Full Performance: 0° to +50° C.
<b>POWER SOURCE</b>	24/48 VDC standard, 80W nominal (optional 115/230 VAC)
<b>DIAGNOSTICS</b>	Local and remote status and control, Monitoring of BER, RSL, Alarms, and Status via Web Server and SNMP
<b>INTERFACES</b>	2 x E1/T1, 10/100/1000BaseT Electrical
<b>UNFADED BER</b>	1 x 10 <sup>-12</sup>
<b>ERROR CORRECTION</b>	Trellis-Coded Modulation, Concatenated with Reed-Solomon Coding + Trellis-Coded Correction Space, Frequency, or Cold/Hot Standby
<b>PROTECTION</b>	FCC part 101.
<b>STANDARDS</b>	FCC part 101.
<b>INDUSTRY CANADA ID</b>	10454A-NXGENS400

### TRANSMITTER

<b>TYPE</b>	Superheterodyne Conversion
<b>POWER OUT</b>	30 dBm
<b>FREQUENCY STABILITY</b>	± 1.5 ppm
<b>DUPLEXER LOSS</b>	5 MHz T/R Spacing = 1dB

### RECEIVER

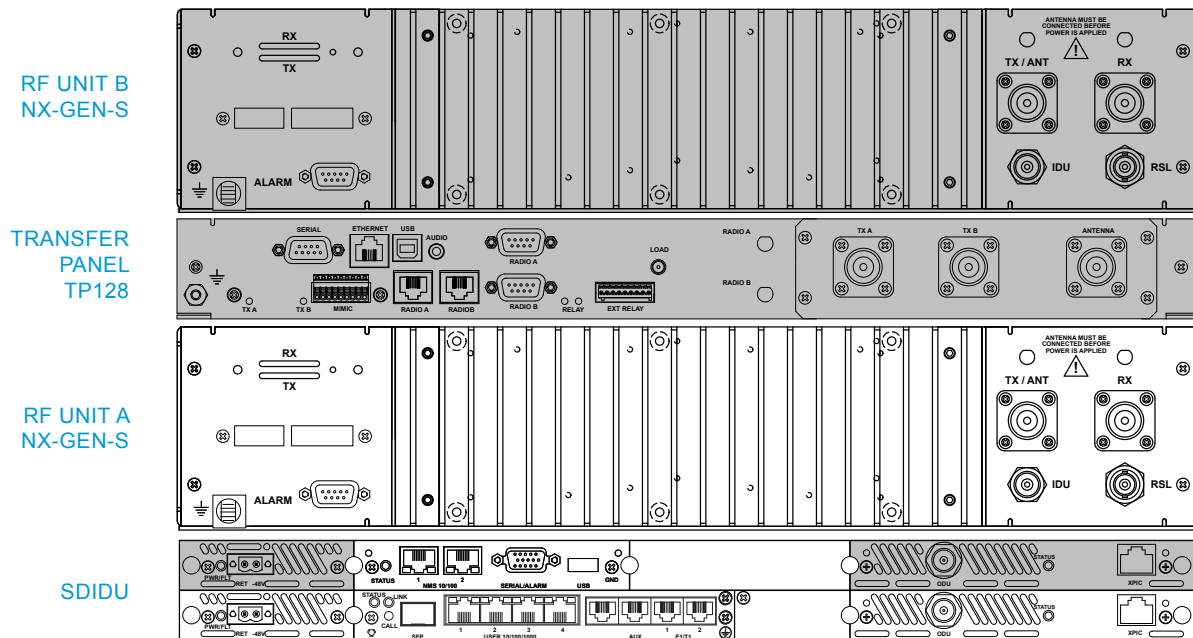
<b>TYPE</b>	Superheterodyne Conversion
<b>RECEIVE SENSITIVITY</b>	Typical, depending on data rate, modulation and FEC (see table)

### PACKAGE

<b>TYPE</b>	Rack Mount
<b>RF Unit Dimensions</b>	2RU - 17 x 11.5 x 3.5 inches Weight 8.2 lbs. <sup>[1]</sup>
<b>SDIDU Dimensions</b>	1RU - 17.5 x 10 x 1.75 inches Weight 6.8 lbs. <sup>[1]</sup>
<b>TP128 Dimensions</b>	1RU - 17.5 x 10 x 1.75 inches Weight 6.8 lbs. <sup>[1]</sup>
<b>Shipping Dimensions</b> <sup>[2]</sup>	22 x 22 x 10 inch 30lb

### TYPICAL RACK MOUNT CONFIGURATIONS

NOTE: Gray tinted units shown are for Hot Standby/Protected Mode configuration.



### SYSTEM PERFORMANCE

100 kHz CHANNEL	QPSK (7/8)	16 QAM (15/16)	32 QAM (19/20)	64 QAM (23/24)	128 QAM (20/21)
CAPACITY <sup>[3]</sup>	150 kbit/s	320 kbit/s	410 kbit/s	500 kbit/s <sup>[4]</sup>	580 kbit/s
RECEIVER SENSITIVITY	-108 dBm	-101 dBm	-97 dBm	-93 dBm	-89 dBm
SYSTEM GAIN	137 dB	130 dB	126 dB	122 dB	118 dB
25 kHz CHANNEL	QPSK (7/8)	16 QAM (15/16)	32 QAM (19/20)		
CAPACITY <sup>[3]</sup>	38 kbit/s	80 kbit/s	102 kbit/s		
RECEIVER SENSITIVITY	-114 dBm	-107 dBm	-103 dBm		
SYSTEM GAIN	143 dB	136 dB	132 dB		

[1] Weight may vary slightly depending on configuration. [2] For 1+0 configuration. [3] Reflects data rates over radio with no NMS channel. [4] Consult Factory.