

NX-GEN-S 900

FCC, Industry Canada and NTIA

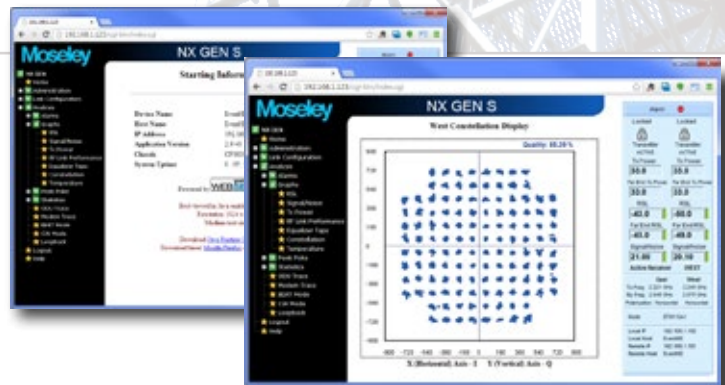


Licensed Point-to-Point 900 MHz Microwave Radio

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 kbps up to 150 Mbps.

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 900

SPECIFICATIONS FCC, Industry Canada and NTIA

SYSTEM

FREQUENCY	932-944 MHz; 953-960 MHz (fully synthesized) For all other frequencies, consult factory.
STEP SIZE	1 kHz
CHANNEL BANDWIDTH	100 kHz / 200 kHz Mode and modem option
DATA RATES	See System Performance table below.
MODULATION	QPSK 7/8, 16 QAM, 32 QAM, 64 QAM, 128 QAM
TEMPERATURE RANGE	Full Performance: 0° to +50° C.
POWER SOURCE	24/48 VDC standard, 80W nominal (optional 115/230 VAC)
DIAGNOSTICS	Local and remote status and control, Monitoring of BER, RSL, Alarms, and Status via Web Server and SNMP
INTERFACES	2 x E1/T1, 10/100/1000 Base-T Electrical
UNFADED BER	1×10^{-12}
ERROR CORRECTION	Trellis-Coded Modulation, Concatenated with Reed-Solomon Coding + Trellis-Coded Correction Space, Frequency, or Cold/Hot Standby
PROTECTION	FCC part 101.
STANDARDS	FCC part 101.
FCC ID	NX-GEN-S-900-100, NX-GEN-S-900-200
INDUSTRY CANADA ID	10454A-NX-GEN-S 900-200

TRANSMITTER

TYPE	Superheterodyne Conversion
POWER OUT	30 dBm
FREQUENCY STABILITY	± 1.5 ppm
DUPLEXER LOSS	9 MHz T/R Spacing = 1 dB 3.6 MHz T/R Spacing = 2.7 dB (FCC only)

RECEIVER

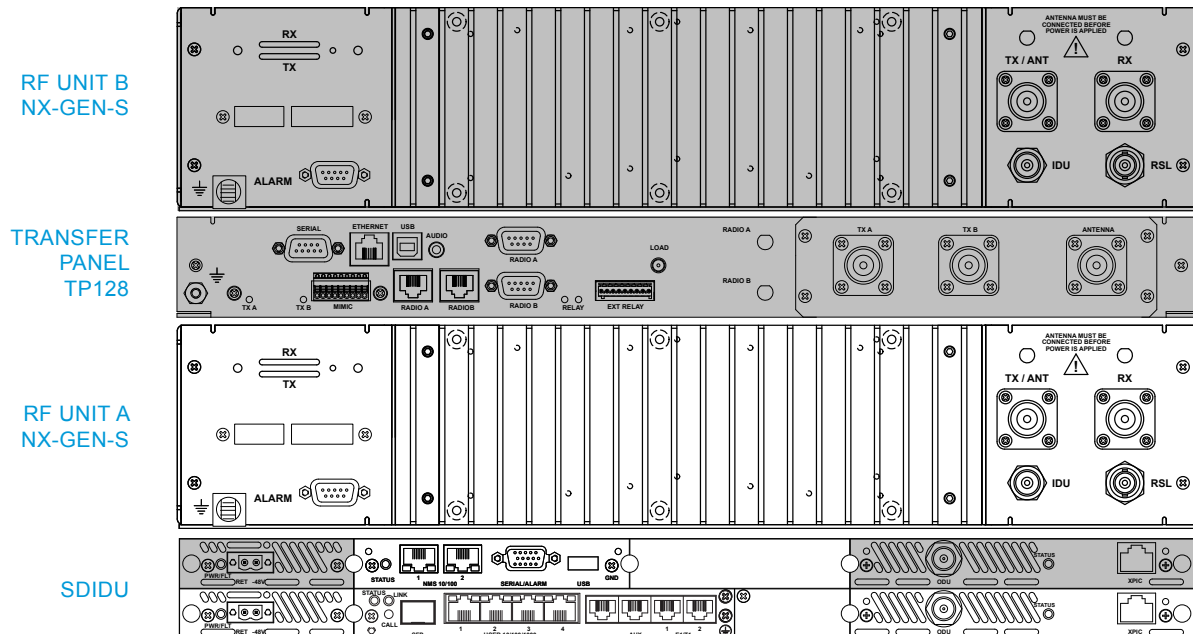
TYPE	Superheterodyne Conversion
RECEIVE SENSITIVITY	-100 dBm (typical, depending on data rate/modulation/FEC)

PACKAGE

TYPE	Rack Mount
RF Unit Dimensions	2RU - 17 x 11.5 x 3.5 inches Weight 8.2 lbs. ^[1]
SDIDU Dimensions	1RU - 17.5 x 10 x 1.75 inches Weight 6.8 lbs. ^[1]
TP128 Dimensions	1RU - 17.5 x 10 x 1.75 inches Weight 6.8 lbs. ^[1]
Shipping Dimensions ^[2]	22 x 22 x 10 inch, Weight 30 lbs.

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 ^[3]	150 kbps	320 kbps	410 kbps	500 kbps ^[4]	580 kbps
RECEIVER SENSITIVITY	-108 dBm	-101 dBm	-97 dBm	-93 dBm	-89 dBm
SYSTEM GAIN	137 dB	130 dB	126 dB	122 dB	118 dB
200 kHz CHANNEL					
CAPACITY ^[3]	290 kbps	610 kbps	780 kbps	960 kbps	1090 kbps
RECEIVER SENSITIVITY	-105 dBm	-98 dBm	-94 dBm	-90 dBm	-87 dBm
SYSTEM GAIN	134 dB	127 dB	123 dB	119 dB	116 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.