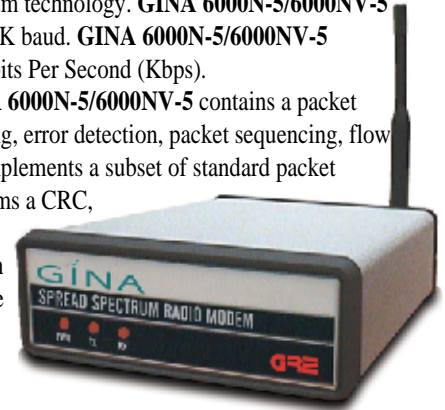


# GINA™ MODEL 6000N-5/6000NV-5 RADIO MODEM



GINA 6000N-5/6000NV-5 is a stand alone, high frequency data transceiver that uses spread spectrum technology. GINA 6000N-5/6000NV-5 uses a standard RS-232 serial data interface that can be driven asynchronously at rates of up to 38.4 K baud. GINA 6000N-5/6000NV-5 receives and transmits data in the frequency range of 902 - 928 MHz at air speeds of up to 128 Kilobits Per Second (Kbps). GINA 6000N-5/6000NV-5 can perform point-to-point or point-to-multipoint communication. GINA 6000N-5/6000NV-5 contains a packet controller module with a custom communication protocol that provides communications handshaking, error detection, packet sequencing, flow control, and supports 3 repeaters to extend the communication range. GINA 6000N-5/6000NV-5 implements a subset of standard packet framing with a built in Cyclic Redundancy Check (CRC). As the GINA 6000N-5/6000NV-5 performs a CRC, if data is corrupted GINA will discard that data. To assure accurate data transmission, your system (peripheral) is responsible to verify if any data blocks are missing. GINA 6000NV-5 is equipped with an option of Voice communication RJ22 jack to aid in testing and setting up between Radios that are far apart. It is also convenient feature to test the Output power or Antenna VSWR.



## GINA 6000N-5/6000NV-5 SPECIFICATIONS

Adjacent Channel Rejection	-40dB = 4 MHz		
Baud Rate Asynchronous	.3 to 38.4 Kbps Duplex TDD RS-232 (DB9F)		
Channels	21 Programmable		
Control	CTS, RTS		
Data Format	7 and 8 bits (non, even, odd) parity, 1 or 2 stop		
Dimensions	(1.52"H) x (4.17"W) x (5.0"D) (38.6mm H) x (105.9mm W) x (127mm D)		
Dynamic Range	-100 dBm ~ -30 dBm		
Frequency Range	902 - 928 MHz		
Indicators	PWR, TxD, RxD		
Modulation	Bi-Phase Shift Keying (BPSK)		
PN	7 Stage (127 Chip)		
PN Rate	2 MHz		
Operating Mode	Point - to - Point or Point - Multipoint		
Operation Temperature	-20 to 60+ Degrees C (Option -34 to 74+ Degrees C)		
PN Codes	4 PN Codes Sequence Varies within ea. channel		
Power Consumption	10 Watt Maximum		
Power Requirements	10.5 to 13.8 VDC		
Radio Technique	Spread Spectrum Direct Sequence		
Range Nominal	800+ feet		
Range Indoor	500 to 1500+ feet		
Range Outdoor	12 + Miles - Direct Line-of-Sight FCC Compliant		
Relative Humidity	0-90% Non-Condensing		
Systems Gain	120 dB		
Transmission Delay	30 mSec.		
Voice Option Interface	RJ22 (6000NV-5 Model only)		
Weight	16 oz.		
<b>TRANSMITTER PERFORMANCE</b>			
Carrier Frequency Stability	15 KHz	<b>RECEIVER PERFORMANCE</b>	
Power Consumption	800 mA @ 12 VDC	BER (Bit Error Rate )	10-6 @ -92 dBm
Spurious Output	FCC Part 15, meets 15.245 & 15.247	Local Oscillator Stability	15 KHz
Output Power	725 mW ( 28.6 dBm )	Receiver Sensitivity Threshold	-100 dBm
		Stand-by Power Consumption	400 mA @ 12VDC
		Signal Acquisition Time	8 mSec.
		Spurious Rejection	-50 dB
<b>CONTROLLER</b>			
Buffer	20 K bytes		
Collision	CSMA		
CPU	80C188		
Error Control	CRC		
Flow Control	CTC / RTS		
Packet Size	5 to 1024 Bytes		
Packetizing Time	18 mS/1Byte, 96 mS/1024 Bytes @ 9600 bps		
Repeater	Selectable up to 3 Stations (with R-3 firmware)		
		FCC Acceptance : DE8-915003N DOC Acceptance : 2185 101 144 ETSI Acceptance : Pending Patents : Pending Made in USA.	

\* Specifications subject to change without notice.  
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