

G306 Wireless Modem

900MHz / 2.4GHz SS Radio Modem – RS232



The Model G306 Wireless Modem is an industrial grade high performance Spread Spectrum Radio Modem for 900MHz or 2.4GHz operating frequencies, with RS232 serial port interface.

The G306 Wireless Modem is system-compatible with the Wireless I/O units from G3 Technologies, and is used to interface your Modbus Master Controller to the Wireless I/O data communications network.



Using the G306 Wireless Modem, virtually any Modbus Master Controller (PC, PLC, Touch-screen Controller, RTU, etc) or HMI package (Wonderware, Citect, Intellution, Cygnet, Lookout, etc) can communicate with G3's Wireless I/O units (models G303, G308, etc).

Whether in-plant or out-doors, G3 Technologies provides a solid choice for wireless monitoring & control in virtually any industrial or commercial environment.

KEY FEATURES

- Long Range Performance:
 - Indoor/urban Range: up to 1500 ft.
 - Outdoor line-of-sight Range:
 - up to 7 miles w/ 2.1 dB dipole antenna
 - up to 20 miles w/ high-gain antenna
- Advanced Networking & Security:
 - 7 ea. Freq. Hopping Channels for system separation
 - Peer-to-peer radio network (no master/slave dependencies)
 - Point-to-point and point-to-multipoint topologies supported
 - Configurable for advanced Repeater function
- Easy to use:
 - Transparent data communications
 - No configuration needed for out-of-box RF operation
- Exceptional Price-to-Performance value

APPLICATIONS

- Master Controller interface with G3 Wireless I/O slave modules
- Stand-alone Repeater for hard-to-reach Wireless I/O.
- Remote monitoring, Sensor data capture, general SCADA applications.
- Use a pair of G306 Wireless Modems for transparent plug-and-play wireless data communications between virtually any devices supporting RS232 serial ports.

G306 Wireless Modem – Specifications:

RF PERFORMANCE:	
Indoor/Urban Range (w/ 2.1 dB dipole antenna)	900 MHz, up to 1500 ft (450 m); 2.4 GHz, up to 600 ft (180 m)
Outdoor RF line-of-site Range (w/ 2.1 dB dipole antenna)	900 MHz, up to 7 miles (11 km); 2.4 GHz, up to 3 miles (5 km)
Outdoor RF line-of-site Range (w/ high gain antenna)	900 MHz, up to 20 miles (32 km); 2.4 MHz, up to 10 miles (16 km)
Transmit Power Output	900 MHz, 100mW; 2.4 GHz, 50mW
SERIAL COMMUNICATIONS:	
Data Rate (Throughput and interface baud rate)	9600 baud (standard), 19.2K baud (optional, & slightly degraded range)
RS232 handshaking	None: TX data and RX data only
NETWORKING & SECURITY:	
Frequency Range	ISM 902-928 MHz or 2.4000-2.4835 GHz
Spread Spectrum	FHSS (Frequency Hopping Spread Spectrum)
Modulation	FSK (Frequency Shift Keying)
Supported Network Topologies	Peer-to-peer (no master/slave dependencies), Point-to-point, Point-to-multipoint and Multidrop
Network Channels (software selectable)	7 Channels (selects hopping sequence). "Net Codes" 0-6. Default = "0"
Network Filtration Layers	VID, Hopping Channel, and Destination Address
Advanced Function (optional)	Repeater & Power-save modes (software configurable)
POWER:	
Input Voltage	10-15 VDC (12V battery or AC/DC Power Supply)
Input Current	900 MHz: 70mA RX / standby, 170mA max TX 2.4 GHz: 90mA RX / standby, 180mA max TX
PHYSICAL:	
Connections	Power: 2 position pluggable screw terminal Serial Port: Sub-D (DB9) female Antenna: RP-SMA (Reverse-polarity SMA) female coaxial connector, 50 ohms
Mounting	Panel mount w/ 4 screws 1.0" x 3.5" rectangular pattern, or DIN rail w/ optional clip
Dimensions	3.0"w x 3.75"l x 1.3"h plus connectors & mounting ears (3.93"w x 4.25"l x 1.35"h overall)
Weight	6.8 oz. (200 g)
MISCELLANEOUS:	
Diagnostics	LEDs for PWR, RTS, TX data, RX data (RTS not used)
Operating temperature	-40 to 85 degrees C. with 5% to 95% non-condensing humidity
Certifications	FCC Part 15.247: "OUR9XSTREAM" (900MHz), "OUR-24XSTREAM" (2.4GHz)
PART NUMBER DESCRIPTION:	
G306-04	900 MHz, 100mW, 9600 baud (standard model)
G306-06	900 MHz, 100mW, 19.2K baud
G306-08	2.4 GHz, 50mW, 9600 baud
G306-10	2.4 GHz, 50mW, 19.2K baud
SOFTWARE CONFIGURATION:	The G306 Wireless Modem is fully functional right out-of-the-box, requiring no software configuration. For configuration of optional features, please contact G3 Technologies.

For Sales and Customer Support, contact:

G3 Technologies, Inc.

2536 W. 239th Street, Louisburg, KS 66053
 913-947-7205 office 913-947-7202 fax
sales@g3ti.com www.g3ti.com