

Specifications

Conditions of Sale

STANDARD: The seller's standard conditions of sale set forth in Price Sheets 150 and 155 apply, except as modified under "SPECIAL WARRANTY PROVISIONS" on page 2.

SPECIAL TO THIS PRODUCT:

INCLUSIONS: SpeedNet ME Mesh End-Point Radios provide high-speed, long-range, peer-to-peer data communication for fixed nodes. They feature:

- Unlicensed 902- to 928-MHz IMS band with regional support for North America, Brazil, New Zealand, and Australia.
- 51 channels with 500-kHz bandwidth in North America
- Frequency Hopping Spread Spectrum (FHSS)
- 4-Gaussian Frequency-Shift Keying (4-GFSK) Modulation
- Fast data transmission rates—up to 300 kbps
- Message latency is on the order of 30 ms per hop, for a 300 byte packet payload
- Frequency hop time, averaging 10 ms
- Transmit power is user selectable: +30, +25, +20, or +10 dBm, default is +30 dBm
- Sensitivity is -100 dBm (at 10⁻⁵ Bit Error Rate)
- Error detection and correction uses 16-bit Cyclic Redundancy Check, Automatic Repeat reQuest, and Reed-Solomon Forward Error Correction
- Serial and Ethernet data input supporting: IPv4, TCP, UDP, ICMP, SNMPv3
- Secure 128-bit AES data encryption with user-defined keysets created using supplied Keygen tool
- MAC address filtering
- Point-to-Point or Point-to-Multipoint network using IP addresses
- Carrier Sense Multiple Access (CSMA-CA) wireless protocol

- Assignable message priority—for example, S&C IntelliRupter® PulseCloser® Fault Interrupter operation messages can be configured to transmit first
- Simple Network Management Protocol version 3 (SNMPv3) and supplied windows-based SpeedNet Radio Client tool to set parameters, monitor status, and automate data collection
- Multi-level administrative passwords
- Over-the-air configuration and software updates
- Received signal strength indication statistics are available in real time and from data logs
- Installation in a user-furnished enclosure

SpeedNet Radios provide highly secure transmission. Their frequency-hopping spread-spectrum signals are inherently difficult to intercept and jam. IP/MAC address filtering prevents unauthorized users from accessing the network. And 128-bit AES encryption ensures that critical data is not compromised.

Device Compatibility

SpeedNet Radios cannot communicate directly with other types of radios because of differences in frequency selection, spread-spectrum frequency hopping patterns, channel use, and network management algorithms. A SpeedGate™ Radio Interface System, with an appropriate gateway communication device, is required in such instances.

Antennas

SpeedNet Radios are FCC and IC approved for use only with the antenna/cable combinations offered in this specification bulletin.

EXCLUSIONS: If the user's communication system also requires licensed radios, frequency selection and FCC license application are to be provided by others.



SPECIAL WARRANTY PROVISIONS: The standard warranty contained in the seller's standard conditions of sale, as set forth in Price Sheets 150 and 155, applies to SpeedNet Radios, except the first paragraph of said warranty is replaced by the following:

(1) General: The seller warrants to the purchaser for a period of two years from the date of shipment that the equipment delivered will be of the kind and quality specified in the contract description and will be free of defects of workmanship and material. Should any failure to conform to this warranty appear under proper and normal use within two years after the date of shipment the seller agrees, upon prompt notification thereof and confirmation that the equipment has been stored, installed, operated, inspected, and maintained in accordance with recommendations of the seller and standard industry practice, to correct the nonconformity either by repairing any damaged or defective parts of the equipment or (at the seller's option) by shipment of necessary replacement parts.

The above special warranty does not apply to gateway communication devices applied with SpeedNet Radios.

END USER LICENSE AGREEMENT: The end user is granted a nontransferable, non-sublicensable, nonexclusive license to use the software furnished with SpeedNet Radios only upon acceptance of all the terms and conditions of the seller's end user license agreement set forth in Price Sheet 155.

How to Order

STEP 1. Select catalog number for the radio from Table 1 on page 3.

Catalog Number: -

STEP 2. Select a power supply cord, if needed, from Table 2 on page 3.

Catalog Number: -

STEP 3. Select an antenna kit from Table 2 on page 3.

Catalog Number:

STEP 4. Select a programming cable to program the radio from Table 2 on page 3.

Catalog Number: -

Example: For a SpeedNet Mesh End-Point Radio with a 120-Vac power adapter, a ½-wave dipole antenna, and a programming cable, select catalog numbers:

1	1	0	-	0	0	0	5	5	5	-	0	3
9	0	4	-	0	0	1	1	7	1	-	0	1
9	0	4	-	0	0	2	1	4	1	-	0	1
9	0	4	-	0	0	1	1	8	4	-	0	1

Table 1. SpeedNet Radio

Item	Catalog Number
SpeedNet ME Mesh End-Point Radio—for mounting in user-furnished enclosure. Includes 4-foot (122-cm) power cord for connection to user-furnished 12-Vdc power source	110-000555-03

Table 2. SpeedNet Radio Accessories

Item	Catalog Number	
12-Vdc power cord—4 feet (122 cm), with connector on one end and bare wires on the other end	007-001496-01	
120-Vac power adapter—supplies 12 Vdc to radio	904-001171-01	
Antenna cable—22 inch (559 mm), with SMA male to N-Type male connectors and bulkhead connector	903-002320-01	
External 900-MHz band pass filter field retrofit kit	903-001174-01	
Omnidirectional 5-dBd whip antenna—mounts on bulkhead connector	904-000071-00	
Remote antenna kit—includes omnidirectional fiberglass antenna, pole-mounted single antenna arm	With 30-foot (914-cm) coaxial cable with N-Type male connectors on both ends	903-002132-02
	With 50-foot (1524-cm) coaxial cable with N-Type male connectors on both ends	903-002132-03
Remote antenna kit—includes unidirectional Yagi antenna, pole-mounted single antenna arm	With 30-foot (914-cm) coaxial cable with N-Type male connectors on both ends (Customer to provide 1.375-inch OD pipe for antenna)	903-002321-01
	With 50-foot (1524-cm) coaxial cable with N-Type male connectors on both ends (Customer to provide 1.375-inch OD pipe for antenna)	903-002321-02
½-wave dipole antenna, rubber duck style, 90 degree adjustable knuckle, SMA male, 870-960 MHz, 2.3 dBi max gain	904-002141-01	
2-way 900 MHz signal splitter, N-female connector	904-002182-01	
3-way 900 MHz signal splitter, N-female connector	904-002183-01	
Flat panel directional antenna, 902-928 MHz, dimensions: 15.4 inches (391 mm) W × 15.4 inches (391 mm) L × 1.7 inches (43 mm) D	904-002184-01	
Type-400 ⅜-inch (9.5-mm) coaxial cable, sold by the foot	904-002185-01	
Retrofit kit for replacing a UtiliNet® Series II or Series 3000 Radio with a SpeedNet Radio. Includes mounting bracket, power-adaptor, and antenna-adaptor cables	904-001172-01	
Retrofit kit for replacing a UtiliNet® Series 3000 Radio with a SpeedNet Radio. No adaptor cables included, connectors are the same for both radios	904-001172-02	
Programming cable—7 feet (213 cm), for Ethernet connection	904-001184-01	

SpeedNet™ ME Mesh End-Point Radio

SpeedNet Radio

Dimensions in inches (mm)

