

PART E
SPECIFICATIONS

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GENERAL

E1. GENERAL

- E1.1 These Specifications shall apply to the Work.
- E1.2 The following shall be the minimum common requirements.

E2. RACK MOUNT SERIAL WIRELESS INTERCONNECT

- (a) Shall operate in the license-free, Spread Spectrum band (902-928 MHz), utilizing Frequency Hopping technology
- (b) Shall utilize 139 user-selectable channels, with 62 available hopping sequences, (2 shall be non-overlapping)
- (c) Shall be completely configurable via included software
- (d) Shall have software features providing "remote programming, remote maintenance, and spectrum analyzer"
- (e) Shall have an RS232 interface capable of 1200 bps to 115.2 Kbps with an 8 or 9 bit format or 1200 bps Bell 202 FSK (2 or 4-wire)
- (f) Shall have a maximum 8 mSec. end-to-end latency
- (g) Shall have LED indicators for PWR, TX DATA, RX DATA and the active data port
- (h) Shall have DB-9F connector for RS232 port and RJ22 for FSK
- (i) Shall have an operating temperature of -40 to +80 degrees C
- (j) Shall have a Receiver Sensitivity of -110 dBm @ 10^{-6} BER
- (k) Shall operate with voltages between 6 VDC and 30 VDC, with a typical current draw of <100mA
- (l) Shall have a radio sleep mode with a maximum current draw of <1uA
- (m) Shall be programmable for RF output levels of 1 mW, 10 mW, 100 mW or 1 Watt
- (n) Shall provide 16-bit CRC error checking with auto re-transmit
- (o) Shall be available as a Rack mounted device
- (p) Shall not require controller hardware or software modifications
- (q) Shall have a built-in store and forward repeater.

E3. RACK MOUNT UNIT DETAILS

- (a) Shall be compatible with, and plug directly into, 170 / TS1 detector rack
- (b) Shall draw operating power from detector card cage
- (c) Shall have RP TNC-F antenna connector
- (d) Shall have RSSI signal strength LEDS

E4. RF COAX JUMPER CABLE

- (a) Shall be 6 feet long
- (b) One end shall connect with the RP TNC-F antenna connector on the serial wireless interconnect card

- (c) The other end shall have a type N male connector on it suitable for connection with a lightning protector with a type N female connector on it.
- (d) The RF coax cable shall be of a type with low enough line losses to be suitable for 920mhz radio applications.

E5. DOCUMENTATION

- (a) Complete instructions for hardware installation, programming and system commissioning shall be included.

E6. SOFTWARE

- (a) Configuration software shall be supplied at no extra cost with products.

E7. DELIVERY

- E7.1 Goods shall be delivered and delivered within thirty (30) days of award, FOB destination, freight prepaid.
- E7.2 Goods shall be delivered between 8:30 a.m. and 4:30 p.m. on Business Days