



MaxStream™ Comparisons between XTend, XStream & XCite OEM RF Module Specifications

Call 866-765-9885 (toll-free in U.S. or Canada), 801-765-9885 (worldwide) or visit www.maxstream.net for more information.

| | 9XTend (900 MHz) OEM RF Module | | 9XStream (900 MHz) OEM RF Module | | 24XStream (2.4 GHz) OEM RF Module | | 9XCite (900 MHz) OEM RF Module | |
|--|--|------------|---|-----------|--------------------------------------|----------------------------|--|-----------|
| Performance | | | | | | | | |
| Transmit Power Output | 1 W (30 dBm) software selectable 1 mW – 1 W | | 100 mW (20 dBm) | | 50 mW (17 dBm) | | 4 mW (6 dBm) | |
| Range (Indoor / Urban) | up to 3000' (900 m) @ 9600 bps throughput data rate | | up to 1500' (450 m) | | up to 600' (180 m) | | up to 300' (90 m) | |
| Range (Outdoor RF line-of-sight, w/ 2.1 dB dipole antenna) | up to 14 miles (22 km) @ 9600 bps throughput data rate | | up to 7 miles (11 km) | | up to 3 miles (5 km) | | up to 1000' (300 m) | |
| Range (Outdoor RF line-of-sight, w/ high gain antenna) | up to 40 miles (64 km) @ 9600 bps throughput data rate | | up to 20 miles (32 km) | | up to 10 miles (16 km) | | -- | |
| Interface Data Rate | 1200 – 230400 bps (software selectable) | | 1200 – 57600 bps (software selectable) | | | | | |
| Throughput Data Rate | 9600 bps | 115200 bps | 9600 bps | 19200 bps | 9600 bps | 19200 bps | 9600 bps | 38400 bps |
| RF Data Rate | 10000 bps | 125000 bps | 10000 bps | 20000 bps | 10000 bps | 20000 bps | 10000 bps | 41666 bps |
| Receiver Sensitivity | -110 dBm | -100 dBm | -110 dBm | -107 dBm | -105 dBm | -102 dBm | -108 dBm | -104 dBm |
| Networking & Security | | | | | | | | |
| Encryption | AES 256-bit | | | n/a | | | | |
| Supported Network Types | True Peer-to-Peer (No "Master/Slave" relationships needed), Addressing for Point-to-Point & Point-to-Multipoint & Multidrop Bus transparent protocol | | | | | | | |
| Error Handling | Retries & Acknowledgments, Multiple Transmissions | | Retries & Acknowledgments | | | | n/a | |
| Network Layers | 3 Filtration Layers (VID, Channel & Addresses) | | | | | | | |
| Channel Capacity | 10 hop sequences share 50 frequencies | | 7 hop sequences share 25 frequencies | | | | Hopping Mode (7 hop sequences share 25 frequencies) or Single Channel Mode (25 single frequency channels) | |
| Addressing | 65,000 Network Addresses Available for each channel | | | | | | | |
| Spread Spectrum Type | FHSS (Frequency Hopping Spread Spectrum) | | | | | | | |
| Modulation | Direct FM Modulator, FSK (Frequency Shift Keying) | | | | | | | |
| Power Requirements | | | | | | | | |
| Supply Voltage | 2.80 – 5.50 VDC regulated | | 5 VDC regulated (\pm 0.25 V) | | | 2.85 to 5.50 VDC regulated | | |
| Transmit Current | 90 mA (3.30V supply voltage, 1mW TX power output), 110 mA (5V, 1mW), 730 mA (5V, 1W) | | 140 mA | | 150 mA | | 55 mA (2.85V supply voltage) | |
| Receive Current | 80 mA (5V supply voltage) | | 50 mA | | 80 mA | | 45 mA (2.85V supply voltage), 55 mA (5.00V) | |
| Shutdown Power-down Current | < 1 μ A | | n/a | | | | | |
| Serial Port Sleep Power-down Current | 10 mA | | 1 mA | | | 1 mA | | |
| Pin Sleep Power-down Current | 147 μ A | | 26 μ A | | | 20 μ A | | |
| General | | | | | | | | |
| Frequency Band | 902 - 928 MHz | | 902 - 928 MHz | | 2.4000 - 2.4835 GHz | | 902 - 928 MHz | |
| Programming Options | AT & Binary Commands | | | | | | | |
| Serial Data Interface | TTL UART interface, no configuration required | | CMOS UART interface, no configuration required | | | | | |
| Physical Properties | | | | | | | | |
| Size | 1.44" x 2.38" x 0.20" (3.65 cm x 6.03 cm x 0.50 cm) | | 1.600" x 2.825" x 0.350 (4.06 cm x 7.17 cm x 0.89 cm) | | | | | |
| Weight | 0.64 oz. (18 g) | | 0.8 oz (24 g) | | | | | |
| Antenna Connector Options | RPSMA or MMCX | | RPSMA, MMCX or Integrated Wire | | | | RPSMA or Integrated Wire | |
| Operating Temperature | Industrial (-40 to 85° C) or Tested Industrial (-40 to 85° C) | | Commercial (0 to 70° C), Industrial (-40 to 85° C) or Tested Industrial (-40 to 85° C) | | | | | |
| Government Agency Certifications | | | | | | | | |
| FCC (United States) | OUR-9XTEND | | OUR9XSTREAM | | OUR-24XSTREAM | | OUR-9XCITE | |
| IC (Canada) | 4214A-9XTEND | | 4214A-9XSTREAM | | 4214A 120008 | | 4214A-9XCITE | |
| Europe | -- | | -- | | ETSI | | -- | |

Refer to product-specific datasheets and manuals for more information.