S-Band Integrated Sector Antenna
WR-INT-ANT-SYS-01

Extended Coverage. Maximum Performance
The power of the Wave Relay® MANET integrated directly into an antenna extends the enterprise to the edge and over large geographic areas.

**Simple Installation**
- Wave Relay® MANET integrated directly into antenna
- No external RF cabling reduces hassle and loss of gain
- Simple mounting bracket for quick setup
- One cable for Power + Data
- Adjustable downtilt for complete coverage

**More Data over Longer Ranges**
- MIMO technology delivers high throughput at long range
- Custom antenna polarization designed to maximize radio performance
- No external RF cabling allows you to leverage the full gain of the antenna
- High throughput allows you to blanket large geographic areas with coverage.

**Made for Durability**
- Built for long-term installation on towers, buildings, and poles
- IP66 rated to protect against weather
- Weatherized Ethernet connector means you don’t have to climb towers in inclement weather to adjust configuration
## SYSTEM SPECIFICATIONS

### RF
- **Frequency**: 2.2 - 2.5 GHz
- **Polarization**: Slant L/R & Vertical
- **Gain**: 12 dBi
- **Transmit Power**: 10W
- **Port-to-Port Isolation**: >30 dB
- **Horizontal Beamwidth (-3 dB)**: 120°
- **Vertical Beamwidth (-3 dB)**: 11°

### Physical
- **Dimensions**: 26 x 16.7 x 5.9 in.  
  66 x 42.5 x 15 cm
- **Weight (Integrated Antenna Only)**: 10 lbs.  
  4.5 kg

### Mounting
- **1” to 2” Pole Mounting Kit**
- **0° to -15° Elevation Downtilt Adjustment**

### Environmental
- **Operating Temperature**: -40°C to +60°C

### I/O
- **Interfaces**: Power + Ethernet (IP66 RJ45)
- **Electrical**
  - **Lightning Protection**: Integral surge suppression
  - **Power Input**: 100 - 240 VAC 50/60 Hz  
    24 - 48 VDC
  - **Peak Power Consumption**: 45W
  - **20% Duty Cycle Power Consumption**: 12.1W

### Android™ Computer
- **Operating System**: Android™ 6.0 – Marshmallow
- **Processor**: 1 GHz Quad Core ARM
- **RAM**: 2GB
- **Storage**: 32GB Flash

### Security
- **Crypto Modes**: CTR-AES-256 Encryption
  SHA-256 HMAC
- **Hardware**
  - **Cryptographic Acceleration**
  - **Suite-B Algorithms**

### Networking
- **Ethernet**: 10/100 Mbps
- **Integration and Extension**: Seamless layer 2 network
- **Protocols**: Advanced multicast algorithms
  IPv4 and IPv6 compatible
  Integrated DHCP server

### MANET
- **MANET**: Wave Relay®
  Self-Forming/Healing
  Peer-to-Peer
  No Master Node
- **Node Entry Time**: <1 sec.
- **Max. Number of Hops**: No Limit
- **Max. Number of Nodes**: No Limit
- **Max. Distance between Nodes**: 130 mi

### Networking Diagrams
- **Azimuth (Green) and Elevation (Blue) Pattern**
  for Vertical Polarized Element
- **Azimuth (Green) and Elevation (Blue) Pattern**
  for Slant Left Polarized Element
- **Azimuth (Green) and Elevation (Blue) Pattern**
  for Slant Right Polarized Element