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

Simple Installation. Maximum Performance
The power of the Wave Relay® MANET integrated directly into an antenna.

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
Cloud Relay™ compatible

**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

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