



HSR[®] FEATURES

- ✓ Fully integrated UHF RFID system with built in antenna
- ✓ Battery powered with optional solar panel for off-grid deployments
- ✓ Communication over Bluetooth or Cellular service
- ✓ Local mesh network capabilities
- ✓ Additional RFID antenna port
- ✓ Water Resistant – built for the elements
- ✓ OTA firmware upgrade capability
- ✓ On-site and remote diagnostic capabilities

SPECIFICATIONS

PHYSICAL SPECIFICATIONS

Dimensions	17.5" x 6.5" x 2.25"
Weight	9.2 lb.
Case Material	Poly-acetal plastic
Mounting	VESA 100mm pattern on back plate with m5 studs
Physical Interfaces	IP67 Charging connector port RP-TNC Antenna Expansion Port Power Button Bluetooth Button RGB Indicator LEDs

COMMUNICATIONS

Bluetooth	<ul style="list-style-type: none"> • Bluetooth Spec v4.2, • BLE
Cellular	<ul style="list-style-type: none"> • 4G • Currently Supported Networks <ul style="list-style-type: none"> ○ AT&T ○ TMobile ○ US Cellular
XBee Mesh	<ul style="list-style-type: none"> • 2.4GHz mesh • Parent / child configuration
WLAN (Future)	802.11 b/g/n

ACCESSORIES

Standard	<ul style="list-style-type: none"> • VESA 1-3" Diameter Pole Clamp Mount • Charger
Optional	<ul style="list-style-type: none"> • 30W Solar Panel + Pole Mount • Secondary Antenna + Cable • Additional VESA 1-3" Diameter Pole Clamp Mount

UHF RFID PERFORMANCE SPECIFICATIONS

Transmission Power	Up to 30 dBm (1W)
Internal Antenna Gain	<ul style="list-style-type: none"> • 6.8 dBiC (Typical), 7.2 dBiC (Max) • 5.1 dBiL (At center band)
Internal Antenna Polarization	Circular (RHCP)
Radiation Pattern Cross Section	Elliptical
Internal Antenna Beamwidth	<ul style="list-style-type: none"> • 40° (Azimuth) • 90° (Elevation)
Internal Antenna Operating Frequency	902-928 MHz
Air Interface Protocol	EPCglobal Gen 2 (ISO 18000-6C)
Maximum Tag Read Rate	750 Tags / Second
Consistent Direct Reading Distance	25+ feet ¹
Maximum Direct Read Distance	40 feet ¹
Consistent Width Reading	15 feet in width at 7.5 feet out ^{1,2}

1. Distances are dependent on tag used, surrounding conditions, and reader configuration
2. Widths are expandable using additional units or secondary antennas

POWER

Battery Chemistry	Lithium Ion Array
Power Capacity	20800 mAh
Charging Input Methods	<ul style="list-style-type: none"> • 12V DC charger (Provided) • 30W Solar Panel (Optional)
Estimated Runtimes	<ul style="list-style-type: none"> • 72 hours in 'Monitoring Mode' • 28 hours in 'Rapid Counting Mode'
Charging Modes	<ul style="list-style-type: none"> • Up to 2A input • Variable charging rates dependent on input, optimized for solar deployments