



WIRELESS MOBILE MESH NETWORKS

$$e = \sum_{n=0}^{\infty} \frac{1}{n!} = \lim_{n \rightarrow \infty} \left(\frac{1}{0!} + \frac{1}{1!} + \frac{1}{2!} + \dots + \frac{1}{n!} \right)$$

SkyMesh Mobile Series

HYCN 400cS/HYCND 400cS 600 MHz SISO HT-OFDM Radio

Radio @ Shore/Boat/Car



RADIO SPECIFICATIONS

| | |
|---------------------|---------------------------------------|
| Frequency range | 600~760 MHz (Optional range) |
| | 600~620 / 662.5-687.5 MHz (Available) |
| Channel Band Width | 2.5 ~ 10 MHz (Customized) |
| Frequency Stability | ± 2 ppm |
| Modulation | SISO HT-OFDM |

| MCS Index | SISO HT-OFDM @ 2.5MHz | | | SISO HT-OFDM @ 7MHz | | |
|-----------|-----------------------|----------------|----------------|---------------------|----------------|----------------|
| | Data Rate (Mbps) | Tx Power (dBm) | Rx Sensitivity | Data Rate (Mbps) | Tx Power (dBm) | Rx Sensitivity |
| MCS0 | 0.81 | 33 (±1.5) | -92 dBm | 2.36 | 33 (±1.5) | -90 dBm |
| MCS1 | 1.62 | 33 (±1.5) | -90 dBm | 4.73 | 33 (±1.5) | -87 dBm |
| MCS2 | 2.44 | 33 (±1.5) | -87 dBm | 7.09 | 33 (±1.5) | -83 dBm |
| MCS3 | 3.25 | 31 (±1.5) | -84 dBm | 9.45 | 31 (±1.5) | -81 dBm |
| MCS4 | 4.88 | 31 (±1.5) | -81 dBm | 14.18 | 31 (±1.5) | -79 dBm |
| MCS5 | 6.50 | 29 (±1.5) | -77 dBm | 18.90 | 29 (±1.5) | -75 dBm |
| MCS6 | 7.31 | 29 (±1.5) | -75 dBm | 21.18 | 29 (±1.5) | -73 dBm |
| MCS7 | 8.12 | 28 (±1.5) | -73 dBm | 23.63 | 28 (±1.5) | -72 dBm |

INTERFACES

| |
|--|
| 1 x N-type Female Connector |
| 10/100/1000 Base-T RJ-45 port with M25 Cable Gland or M12 Waterproof connector |

MANAGEABILITY

| | |
|-----------------------|--|
| Management and Setup | Web-based (Chrome / IE 9.0 or later) |
| SNMP agents | MIB II |
| Protocol | TCP/IP, IPX/SPX, NetBEUI |
| Operating mode | MESH |
| Antenna Alignment | WEB GUI Local / Remote Information |
| Built-in NMS | Live linking status of the network by GPS coordinates and internet map database |
| Built-in GPS Receiver | Self-locate GPS coordinates to synchronize NMS live linking status (Optional) |

SECURITY

| | |
|-------------------|--|
| Data Encryption | WPA-PSK / WPA2-PSK |
| Advanced Security | MAC access control / Disable SSID / Proprietary protocol |

ENVIRONMENT

| | |
|-----------------------|--------------------|
| Operating Temperature | -30~60 °C |
| Storage Temperature | -30~70 °C |
| Humidity | 95% non-condensing |

POWER SUPPLY & CONSUMPTION

| |
|--|
| Power Supply : AC 100-264V, 50-60Hz convert to DC 48V Adapter (Max. 45Watts) with 48VDC POE or M12 waterproof direct power 10/30 VDC |
| Power consumption : |
| 25Watts @ 48VDC (shore / vessel station) |
| 25Watts @ 12VDC (drone radio) |
| 25Watts @ DC10 – 30V (vehicle or portable station) |

PHYSICAL

| | |
|-----------|--|
| Dimension | 259 (L) * 250 (W) * 75 (H) ; mm (External antenna model) |
| Weight | 2Kg (ground station & boat station versions) |

WARRANTY

| |
|-----------------------|
| 1 YEAR |
| Advanced |
| LTE Backhaul Optional |

Specifications of Antennas



Electrical Specification

| | |
|-----------------------|------------------|
| Frequency Band | 600 ~ 620 MHz |
| Gain | 7 dBi |
| Nominal Impedance | 50Ω |
| VSWR | < 1.5 : 1 |
| Polarizations | Linear, Vertical |
| HPBW-Azimuth | 360° |
| HPBW-Elevation | 17° |
| Max. Power Handling | 150 W |
| Operating Temperature | -40°C ~ +80°C |

Mechanical Specification

| | |
|--------------------|-----------------------------------|
| Connector | N-Type, Female |
| Length | 2110 ± 10.0 mm |
| Diameter | 42 ± 0.5 mm |
| Antenna Weight | 2.0 Kg |
| Mounting Weight | 2.7 Kg |
| Wind Load @150km/h | 90 N |
| Color | Green |
| Mounting | Clamp Set , On pole Φ 30~70 mm |

Electrical Specification

| | |
|-----------------------|------------------|
| Frequency Band | 600 ~ 620 MHz |
| Gain | 5 dBi |
| Nominal Impedance | 50 Ω |
| VSWR | < 1.5 : 1 |
| Polarizations | Linear, Vertical |
| HPBW-Azimuth | 360° |
| HPBW-Elevation | 28° |
| Max. Power Handling | 150 W |
| Operating Temperature | -40°C ~ +80°C |

Mechanical Specification

| | |
|--------------------|-----------------------------------|
| Connector | N-Type, Female |
| Length | 1457 ± 10.0 mm |
| Diameter | 42 ± 0.5 mm |
| Antenna Weight | 1.4 Kg |
| Mounting Weight | 2.7 Kg |
| Wind Load @150km/h | 60 N |
| Color | Green |
| Mounting | Clamp Set , On pole Φ 30~70 mm |

Ant @ Shore/Boat
ANTM600620M05-M
ANTM600620M07-M



Electrical Specification

| | |
|-----------------------|------------------|
| Frequency Band | 600 - 620 MHz |
| Gain | 2 dBi |
| Nominal Impedance | 50 Ω |
| VSWR | < 2.0 : 1 |
| Polarizations | Linear, Vertical |
| HPBW-Azimuth | 360° |
| HPBW-Elevation | 78° |
| Max. Power Handling | 20 W |
| Operating Temperature | -40°C ~ +70°C |

Mechanical Specification

| | |
|--------------------|--|
| Connector | SMA, Female |
| Length | ≤ 230 mm |
| Diameter | ≤ 290 mm |
| Antenna Weight | <1.0 Kg |
| Wind Load @150km/h | 10 N |
| Wind Survival | >200 Km/h |
| Color | Matte Black (or customer specified) |
| Mounting | Customer specified |

