



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 SPECIFICATIONS						
Frequency range	600~760 MHz (Optional range)					
	600~620 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						
MANAGEABILITY						
Management and Setup	Web-based (Chrome / IE 9.0 or later)					
SNMP agents	MIB II					
Protocol	TCP/IP, IPX/SPX, Net BEUI					
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 ( <b>Optional</b> )					
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						
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						



### 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
Wind0 Load @150km/h	90 N
Color	Green
Mounting	Clamp Set , On pole Φ 30~70 mm

Ant @ Shore/Boat

### 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
Wind0 Load @150km/h	60 N
Color	Green
Mounting	Clamp Set , On pole Φ 30~70 mm



Ant @ Drone side



Radio @ Shore/Boat

### Electrical Specification

Frequency Band	600 ~ 620 MHz
Gain	> 2.5 dBi
Nominal Impedance	50 Ω
VSWR	< 1.5 : 1
Polarizations	Linear, Vertical
Max. Power Handling	10 W
Operating Temperature	-40°C ~ +80°C

### Mechanical Specification

Connector	SMA, male
Length	250 ± 10.0 mm
Diameter	Φ19 mm
Antenna Weight	< 0.08 Kg
Color	black

