



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

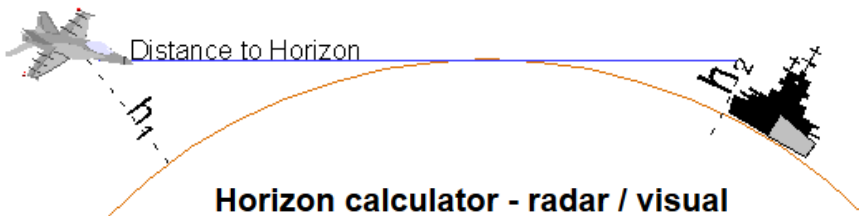
HYC-ND400cS-33 / 39 2 / 8 Watts SISO HT-OFDM Radio

Features:

- 600 MHz Operating frequency
- Channel bandwidth
2.5 MHz ~ 10 MHz.
- CCK, DSSS, HT-OFDM
- 2 or 8 Watts Output Power.
- SISO Antenna System
- MESH Ad-Hoc.
- 32.5 Mbps max throughput
of Eth. port of ground station in
10MHz channel bandwidth
- Supports 2.5 MHz narrow
channel bandwidth.
- RS232 for traffics data



HYC-ND400cS-39 (8 Watts)
(170 x 163 x 45 mm)



Height h ₁	1000	m
Height h ₂	4	m
Radar Horizon	138.6645593056	km
Visual Horizon	120.0870309632	km



HYC-ND400cS-33 (2 Watts)
(150 x 153 x 45 mm)

Reference:

RSSI = -83dBm @ 120 KM @ 1% error rate, running in QPSK1/2 mode. 7dBi Omni-directional @ vessel & 5dBi Omni-directional @ mobile vehicle.

HYC-ND Series Specifications

Wireless	ATHND400cS-33	ATHND40cS-39
Frequency range	600 - 620 MHz	600 - 620 MHz
Max. Output Power	33 dBm \pm 1.5 dB	39 dBm \pm 1.5 dB
Channel Bandwidth	2.5 - 10 MHz	2.5 - 10 MHz
Operating RF Channel	ONE	ONE
Modulation	CCK, DSSS, HT-OFDM	CCK, DSSS, HT-OFDM
Receive Sensitivity	Varying between -96 dBm \pm 1 dB and -73 dBm \pm 2 dB	
Antenna System	1x1 SISO	1x1 SISO
Max. Physical Layer Data Rate	32.5 Mbps	32.5 Mbps
Protocol	Mesh Ad-Hoc	Mesh Ad-Hoc
Antenna Connector	Type SMA Female x 1	Type SMA Female x 1
† Interfaces	Lemo 3 pins (DC In) Lemo 8 pins (Ethernet) Lemo 5 pins (RS232 Data & Reset)	M12 3 pins (DC In) M12 8 pins (Ethernet) M12 5 pins (RS232 Data & Reset)
Input Voltage	24 VDC	24 VDC
Power Consumption	Max. 20 W Avg. 12W	Max. 70 W
† Weight	< 650 g	< 1200 g
† Dimension	150 x 123 x 45	170 x 163 x 45
Flight Distance of Mobile Vehicle	30 km Radius coverage	120 km Radius coverage

† Customized service: range of operating frequency, interfaces, weight and dimension.



HYC-ND400cS-39 (8 Watts)



HYC-D400cS-33 (2Watts)

ANTENNA of Ground Station

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

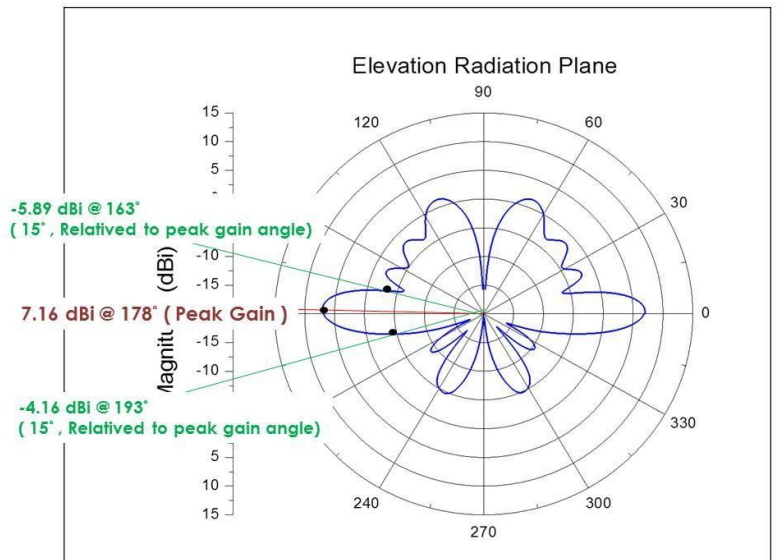
Electrical Specification

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

Ordering Information:
 ANTM600620M05-M
 ANTM662687M05-M
 ANTM600620M07-M
 ANTM662687M07-M





Sector RHCP Antenna

Specifications of Sector Antennas

Electrical Specification

Frequency Band	662 – 688 MHz
Gain (Max.)	≥ 10 dBi
Nominal Impedance	50 Ω
VSWR	≤ 2.0:1
Polarizations	Circular, RHCP
HPBW-Azimuth	80°
HPBW-Elevation	25°
Front - to - back ratio	> 25 dB
Max. Power Handling	100 W cw
Operating Temperature	-40°C ~ +70°C
Lightning Protection	DC Grounded

Mechanical Specification

Connector	N Type, Female
Dimension	905(L) x 326(W) x 86(H) ± 5.0mm
Weight	≤ 7 Kg (with Mounting Kit)
Wind Survival	200 Km/h
Wind Load @150km/h	Front : 467 N, Side : 123 N
Color	Gray
Mounting	MT-007 Mounting Kit , on pole Φ 40 ~ 80 mm

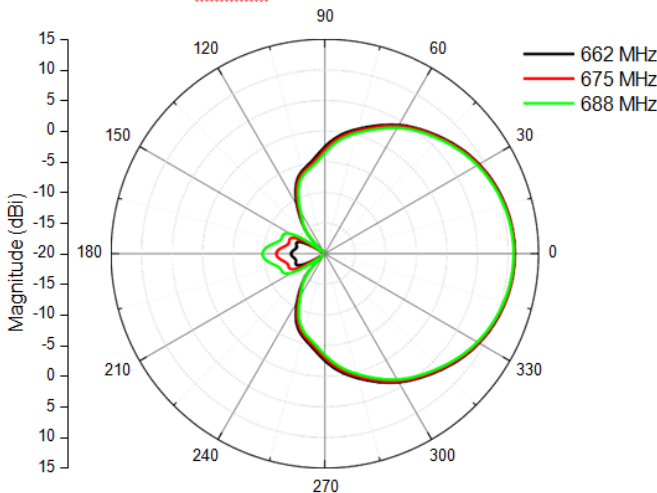


Ordering Information:

ANTU606210-S80-NFRC, 610MHz

ANTU666910-S80-NFRC, 675MHz

Azimuth Plane Radiation Pattern



Elevation Plane Radiation Pattern

