

AQU4518R1

DXXXX-790-960/1710-2690/1710-2170/2490-2690-65/65/65/65-17i/18i/18i/18i-
M/M/M/M-R
EasyRET Quad-Band Antenna with 4 Integrated RCUs - 2.6m



Antenna Specifications

Electrical Properties									
Frequency range (MHz)	790 - 960 (r)								
	790 - 862			824 - 894			880 - 960		
Polarization	+45°, -45°								
Electrical downtilt (°)	0 - 10, continuously adjustable								
Gain (dBi)	0°	5°	10°	0°	5°	10°	0°	5°	10°
	16.5	16.8	16.6	16.8	17.0	16.9	17.2	17.3	17.1
Side lobe suppression (Typ.) (dB) -for first side lobe above main beam -within 0° - 15° sector above horizon	0°	5°	10°	0°	5°	10°	0°	5°	10°
	18	18	18	18	18	18	18	18	18
Horizontal 3dB beam width (°)	65			64			62		
Vertical 3dB beam width (°)	8.6			8.2			7.6		
VSWR	< 1.5								
Isolation between ports (dB)	≥ 28								
Front to back ratio, copolar (dB)	Typ. 28								
Cross polar ratio (dB)	0°	Typ. 18							
	±60°	Typ. 10							
Max. power per input (W)	500 (at 50°C ambient temperature) *								
Intermodulation IM3 (dBc)	≤ -153 (2 x 43 dBm carrier)								
Impedance (Ω)	50								
Grounding	DC Ground								

Electrical Properties																					
Frequency range (MHz)	1710 - 2690 (yyR)												1710 - 2170 (bL)						2490 - 2690 (yL)		
	1710 - 1990			1920 - 2200			2200 - 2490			2490 - 2690			1710 - 1990			1920 - 2170					
Polarization	+45°, -45°																				
Electrical downtilt (°)	0 - 10, continuously adjustable																				
Gain (dBi)	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°
	17.5	17.3	17.0	17.8	17.8	17.3	18.0	18.0	17.6	18.0	18.2	17.7	17.0	17.2	17.0	17.4	17.7	17.0	17.7	17.7	17.2
Side lobe suppression (Typ.) (dB) -for first side lobe above main beam -within 0° - 15° sector above horizon	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°	0°	5°	10°
	16	16	17	17	17	17	17	18	18	17	18	18	15	17	16	15	17	17	17	17	15
Horizontal 3dB beam width (°)	65			62			60			60			65			62			60		
Vertical 3dB beam width (°)	5.8			5.4			4.8			4.3			5.8			5.4			4.3		
VSWR	< 1.5																				
Isolation between ports (dB)	Intra-system: ≥ 28 Inter-system: ≥ 30																				
Front to back ratio, copolar (dB)	Typ. 28																				
Cross polar ratio (dB)	0°	Typ. 18																			
	±60°	Typ. 10																			
Max. power per input (W)	250 (at 50°C ambient temperature) *																				
Intermodulation IM3 (dBc)	≤ -153 (2 x 43 dBm carrier)																				
Impedance (Ω)	50																				
Grounding	DC Ground																				

* Total power : 1000 W (at 50°C ambient temperature)

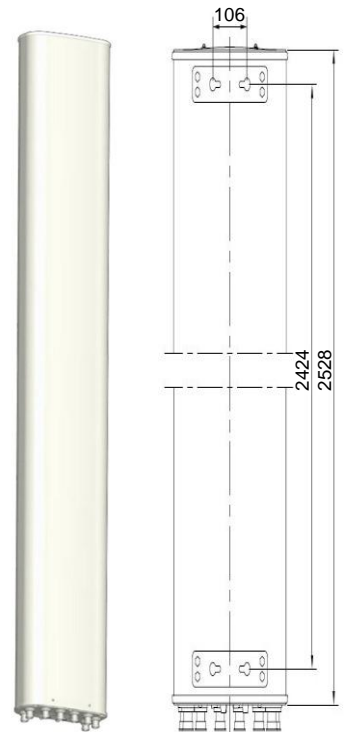
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Mechanical Properties

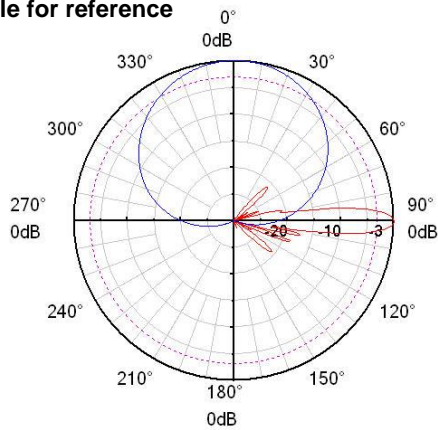
Antenna dimensions (H x W x D) (mm)	2528 x 349 x 166
Packing dimensions (H x W x D) (mm)	2885 x 420 x 240
Antenna weight (kg)	32.0
Clamps weight (kg)	3.6 (2 units)
Antenna packing weight (kg)	47.2 (Included clamps)
Mast diameter supported (mm)	50 - 115
Radome material	Fiberglass
Radome colour	Light grey
Operational temperature (°C)	-40 .. +65
Wind load (N)	Frontal: 920 (at 150 km/h) Lateral: 305 (at 150 km/h) Rear side: 955 (at 150 km/h)
Max. operational wind speed (km/h)	150
Survival wind speed (km/h)	200
Connector	8 x 7/16 DIN Female
Connector position	Bottom



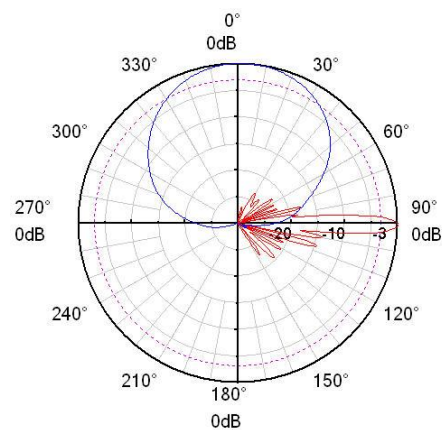
Accessories

Item	Model	Description	Weight	Units per antenna
Downtilt kit	ASMDT0D01	Mechanical downtilt: 0 - 8 °	2 kg	1 (Separate packing)

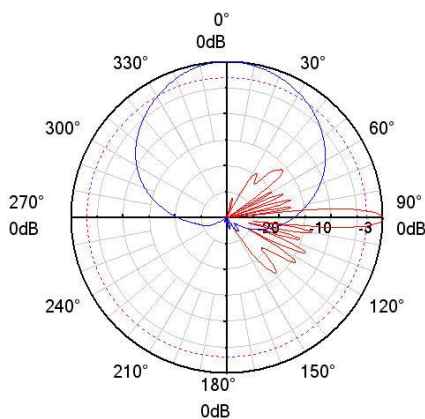
Pattern sample for reference



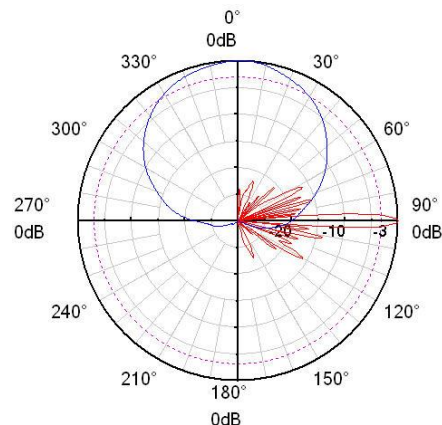
790 - 960 MHz



1710 - 2690 MHz



1710 - 2170 MHz



2490 - 2690 MHz

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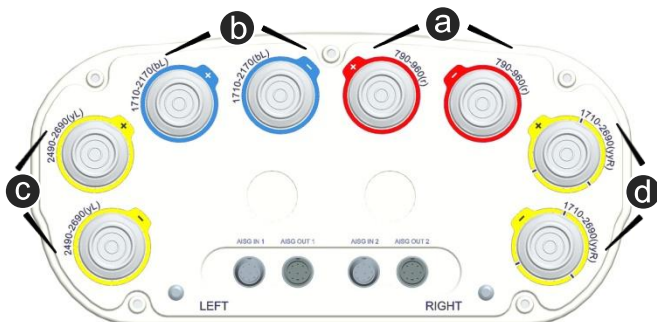
Integrated RCU Specifications

Properties								
RET type	Integrated RET							
RET protocols*	AISG 2.0 / 3GPP							
Input voltage range (V)	10 - 30 DC							
Power consumption (W)	< 10 (motor activated) < 0.5 (stand by)							
Adjustment time (full range) (s)	< 50 (typically, depending on antenna type)							
RET connector	4 x 8 pin connector according to IEC 60130-9 Daisy chain in: Male / Daisy chain out: Female							
Pin assignment according AISG	1	2	3	4	5	6	7	8
	DC	n/c	RS-485B	n/c	RS-485A	DC	DC return	n/c
Lightning protection (kA)	3 (10/350 μs) 10 (8/20 μs)							

* Please confirm the AISG protocol of primary station is compatible with RET antenna protocol interface. The protocol of RET antenna software interface is switchable between AISG 2.0/3GPP and AISG 1.1 with a vendor defined command. For more details about protocol switching function, contact Huawei before system installation.

Standards: EN 60950-1 (Safety), EN 55022 (Emission), EN 55024 (Immunity), ETSI EN300386 (1.4.1), FCC part15

Certification: CE, FCC, RoHS, WEEE



Integrated RCU S/N:

- a HWMxxx.....r
- b HWMxxx....bL
- c HWMxxx....yL
- d HWMxxx...yyR

r - Red b - Blue y - Yellow
L - Left array R - Right array

