

# ATR4518R11v06

DXXX-690-960/1695-2690/1695-2690-65/65/65-17i/18i/18i-M/M/M-R  
EasyRET Tri-Band Antenna with 3 Integrated RCUs - 2.6m

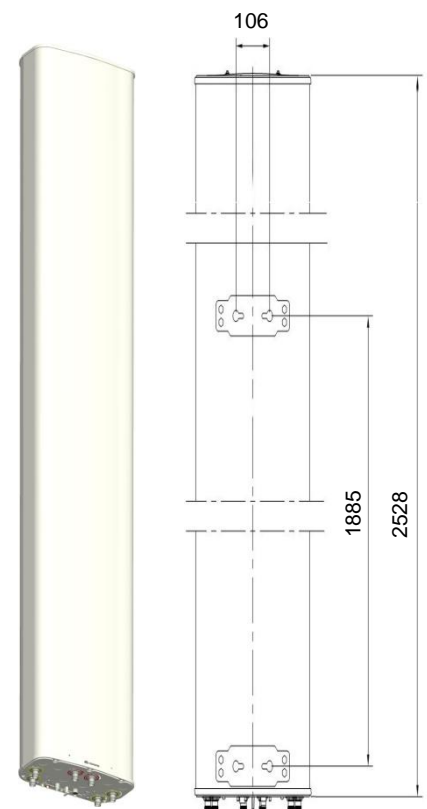


## Antenna Specifications

Electrical Properties									
Frequency range (MHz)		690 - 960				2 x (1695 - 2690)			
		690 - 803	790 - 862	824 - 894	880 - 960	1695 - 1990	1920 - 2200	2200 - 2490	2490 - 2690
Polarization		+45°, -45°							
Electrical downtilt (°)		0 - 10, continuously adjustable				0 - 10, continuously adjustable, each band separately			
Gain (dBi)	at mid Tilt	16.5	16.7	16.8	17.0	17.1	17.5	17.8	18.2
	over all Tilts	16.4 ±0.4	16.6 ±0.3	16.7 ±0.2	16.8 ±0.4	17.1 ±0.5	17.5 ±0.4	17.8 ±0.5	18.2 ±0.3
Side lobe suppression for first side lobe above main beam (dB)		> 17	> 17	> 17	> 17	> 19	> 19	> 19	> 19
Horizontal 3dB beam width (°)		66 ±1.3	66 ±1.4	65 ±1.3	65 ±1.9	65 ±4.6	64 ±4.1	63 ±3.4	62 ±4.1
Vertical 3dB beam width (°)		9.0 ±0.6	8.3 ±0.4	7.5 ±0.4	7.2 ±0.4	7.1 ±0.5	6.5 ±0.5	5.8 ±0.3	5.3 ±0.2
VSWR		< 1.5							
Cross polar isolation (dB)		≥ 28							
Interband isolation (dB)		≥ 30							
Front to back ratio, ±30° (dB)		> 25	> 26	> 27	> 26	> 25	> 27	> 26	> 25
Cross polar ratio (dB)		0°	> 18	> 18	> 18	> 18	> 18	> 18	> 18
Max. power per input (W)		500 (at 50°C ambient temperature)				250 (at 50°C ambient temperature)			
Intermodulation IM3 (dBc)		≤ -153 (2 x 43 dBm carrier)							
Impedance (Ω)		50							
Grounding		DC Ground							

1. Values based on NGMN recommendations on Base Station Antenna Standards (BASTA).
2. Electrical datasheet in XML format is available.

Mechanical Properties	
Antenna dimensions (H x W x D) (mm)	2528 x 349 x 166
Packing dimensions (H x W x D) (mm)	2880 x 415 x 245
Antenna weight (kg)	27.4
Clamps weight (kg)	3.6 (2 units)
Antenna packing weight (kg)	43.1 (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)	200
Survival wind speed (km/h)	250
Connector	6 x 4.3-10 Female
Connector position	Bottom



## Accessories

Item	Model	Description	Weight	Units per antenna
Downtilt kit	ASMDT0D01	Mechanical downtilt: 0 - 8°	2.1 kg	1 (Separate packing)

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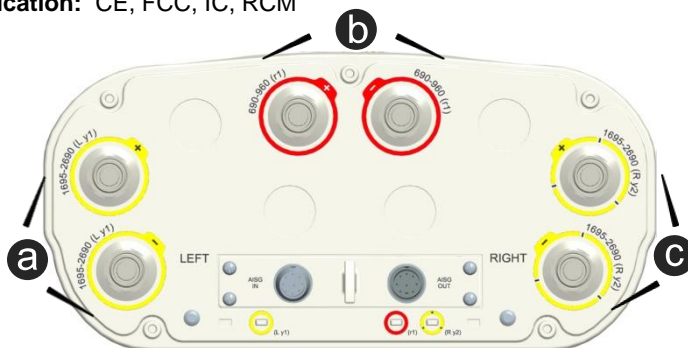
## Integrated RET Specifications

Properties								
RET type	Integrated RET							
RET protocols*	AISG 2.0 / 3GPP							
Input voltage range (V)	10 - 30 DC							
Power consumption (W)	< 6 (motor activated, 12V) < 1.5 (stand by, 12V)							
Adjustment time (full range) (s)	< 65 (typically, depending on antenna type)							
RET connector	2 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 $\mu$ s) 10 (8/20 $\mu$ s)							

\* 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:** UL 60950-1 (Safety), UL 60950-22 (Safety – Equipment installed outdoor), EN 55022 (Emission), EN 55024 (Immunity), ETSI EN 301 489, FCC Part15, ICES-003

**Certification:** CE, FCC, IC, RCM

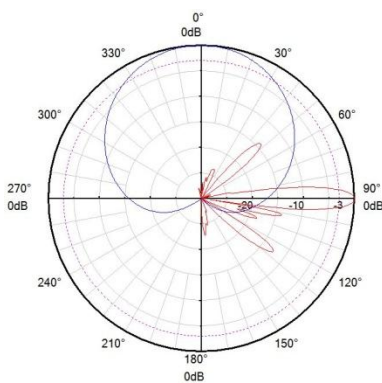


**Integrated RET S/N:**

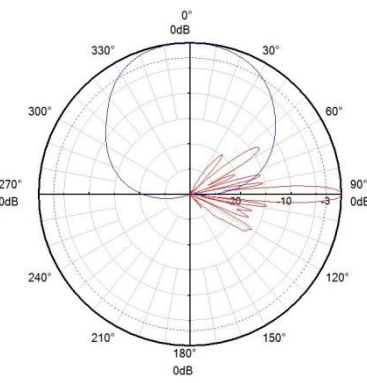
- a** HWMxxx...Ly1
- b** HWMxxx.....r1
- c** HWMxxx....Ry2

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

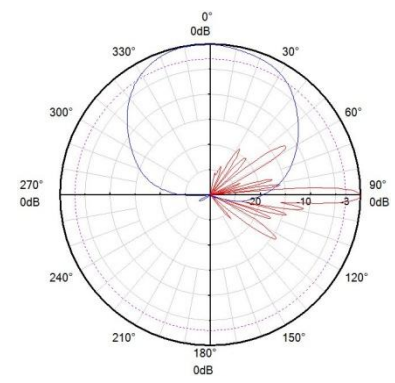
### Pattern sample for reference



690 - 960 MHz



1695 - 2690 MHz  
(Left)



1695 - 2690 MHz  
(Right)

### NOTE

1. Facilities, such as towers and poles, must bear the weight and wind load of antennas.
2. HUAWEI 's standard brackets and accessories must be used for any installation.
3. The antenna working environment must meet the requirements specified in the datasheet.
4. Only qualified personnel are allowed to perform installation. Installation tools and procedures must conform to requirements described in the antenna installation guide.