S-VUL4PX7.3.3PF3-E2-C

X Pol Panel TD Antenna 3300-3800MHz 80° 13.5dBi 2°-12° Replaceable RET
XXXXX Pol 698-960/4×1695-2690MHz 65°/65° 12/12.5dBi 3°/3° FET

Electrical Specifications

Electrical Specifications (3300-3800MHz)			
General parameters	Frequency range (MHz):		3300-3800(P1)
	Polarization:		±45°
	Electrical downtilt (°):		2-12 , continuously adjustable
	Connector Type:		1xMQ5,1xMQ4
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port (dB) :		-26±2
	Max Amp/phase Deviation:		<1.2/ 12°
	VSWR:		<1.5
	Max. Power Per Port (W):		40
	Interband Isolation (dB):		>20
	Polarization Isolation (dB):		>23
Radiation parameters	Single Column	Horizontal 3dB Beamwidth (°):	80±10
		Vertical 3dB Beamwidth (°):	9.5
		Front to Back Ratio (dB):	23
		Gain (dBi):	13.5±0.5
		Cross polar ratio (dB):	>15 (0°)/>8 (±60°)
	Broadcast Beam	Horizontal 3dB Beamwidth (°):	65±10
		Gain (dBi):	15.0±0.5
		Front to Back Ratio (dB):	25
		Vertical 3dB Beamwidth (°):	9.5
		Cross polar ratio (dB):	>15 (0°)/>8 (±60°)
		1st Upper Sidelobe Suppression (dB):	>14
	Service Beam @ 0deg	Gain (dBi):	17.0±0.5
		Horizontal 3dB Beamwidth (°):	19
		Horizontal Sidelobe Level (dB):	<-12
		Cross polar ratio (0°) (dB):	15
		Front to Back Ratio (dB):	25
	Service Beam@ 60deg	Gain (dBi):	14.5±0.5
		Horizontal 3dB Beamwidth (°):	20
		Horizontal Sidelobe Level (dB):	<-3

S-VUL4PX7.3.3PF3-E2-C

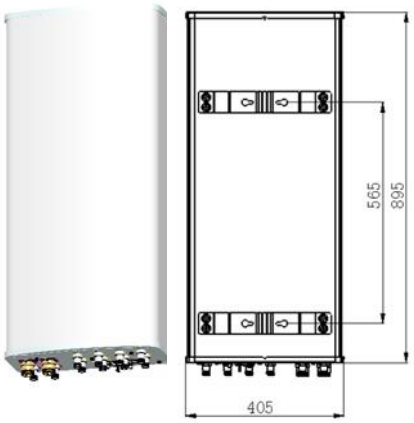
Electrical Specifications (698-960/1695-2690 MHz)						
Frequency Range (MHz):	698-960(R1)			1695-2690(Y1,Y2,Y3,Y4)		
	698-806	806-880	880-960	1695-2170	2300-2490	2490-2690
Gain (dBi):	11.0±0.6	11.0±0.5	11.3±0.8	11.3±0.6	12.5±0.5	13.0±0.5
Return Loss (dB):	>14 (VSWR<1.5)					
Polarization:	±45°					
Horizontal 3dB beamwidth (°):	68	65	60	72	69	67
Vertical 3dB beamwidth (°):	28	26	24	24	21	19
Electrical Downtilt (°):	3 Fixed					
Polarization Isolation (dB):	>23					
Interband Isolation (dB):	>23					
Max. Power Per Port (W):	250			200		
Intermodulation IM3 (dBc):	<-150 (2×43dBm)					
Impedance (ohm):	50					
Lightning Protection:	DC Grounded					
Connector Type:	10x4.3-10 Female					

BASTA Electrical Specifications

Frequency Range(MHz):	698-960(R1)			4×1695-2690(Y1,Y2,Y3,Y4)			3300-3800(P1)
	698-806	806-880	880-960	1695-2170	2300-2490	2490-2690	
Average Gain by all Beam Tilts (dBi):	10.5	10.7	10.6	11.0	12.5	13.0	13.0
Gain by all Beam Tilts Tolerance(dB):	±0.7	±0.6	±0.6	±1.0	±0.7	±0.8	±0.9
Average Gain by Beam Tilt (dBi):	3°|10.5	3°|10.7	3°|10.6	3°|11.0	3°|12.5	3°|13.0	2°|13.4 7°|13.3 12°|12.4
Horizontal Beamwidth Tolerance(°):	±3.0	±3.5	±3.0	±12.2	±10.7	±9.8	±16.4
Vertical Beamwidth Tolerance(°):	±1.9	±1.9	±2.7	±3.4	±1.9	±1.6	±1.5
1st Upper Sidelobe Suppression (dB) :	15.0	11.1	11.4	11.2	11.9	11.2	12.4
Front to back Total Power at 180° ± 30°(dB):	23.1	23.3	25.0	23.2	26.5	24.9	23.7
CPR at Boresight(dB):	15.2	15.6	15.6	17.6	17.7	17.8	14.3

Mechanical Data

Antenna Dimensions (mm):	895×396×190
Packing Dimensions (mm):	1165x465x265
Antenna Net Weight/Bracket (kg): (kg):	16/5.9
Antenna Gross Weight (kg):	24.5
Radome Material:	Fiberglass
Pipe OD (mm):	50-114
Mounting Kits (Included):	BA.K.04.00069161, Adjustable Downtilt 0°-14°



Environmental Ratings

Humidity:	95%RH@+30℃
Temperature (℃):	-40～+70
Wind Load @150 km/h (N):	Frontal/Lateral/Rearside:732/218/966
Max. Wind velocity(km/h):	200

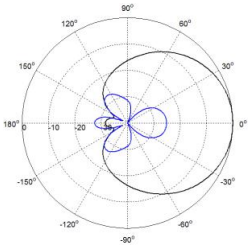
Our products are compliant to the EU Directive RoHS as well as to other environmentally relevant regulations.

S-VUL4PX7.3.3PF3-E2-C

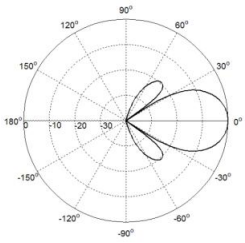
Internal RET Specifications

RET type:	Replaceable RET
RET protocol:	AISG 2.0 /3 GPP
Input voltage range((V):	10-30 DC
Power consumption (W):	< 5 (motor activated, single RET) < 1 (stand by, single RET), < 1.5 (stand by, 12V)
Adjustment time (full range) (s):	< 120 (typically, depending on antenna type)
RET connector:	one pair of AISG 5 pin male & female
Pin assignment according AISG:	8 pin circular connector conforming to IEC 60130-9 - Ed. 3.0
Lightning protection (kA):	5 (8/20 μs Differential mode), 8 (8/20 μs Common mode)

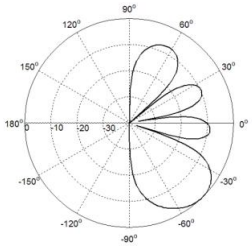
Typical Patterns



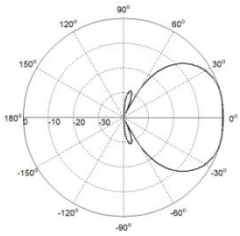
Single Column



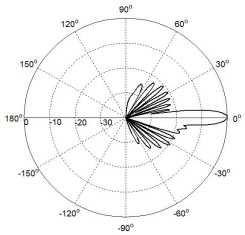
Service Beam @0deg



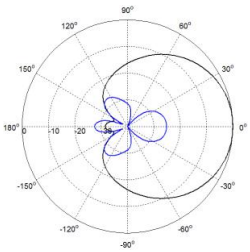
Service Beam @60deg



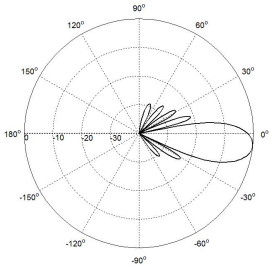
Broadcast Beam



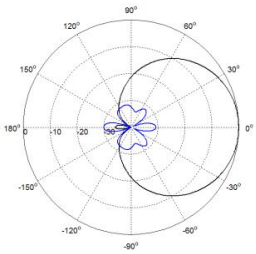
Elevation



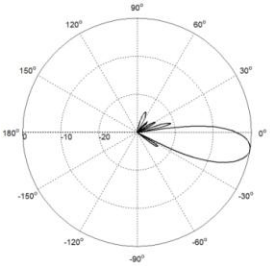
Azimuth(698–960MHz)



Elevation(698–960MHz)



Azimuth(1695–2690MHz)

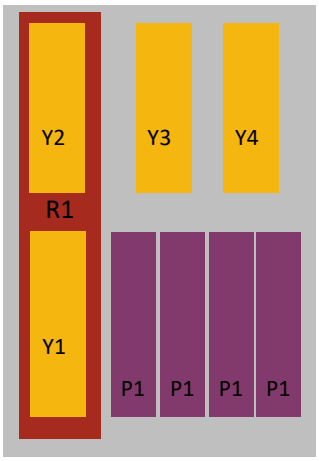


Elevation(1695–2690MHz)

S-VUL4PX7.3.3PF3-E2-C

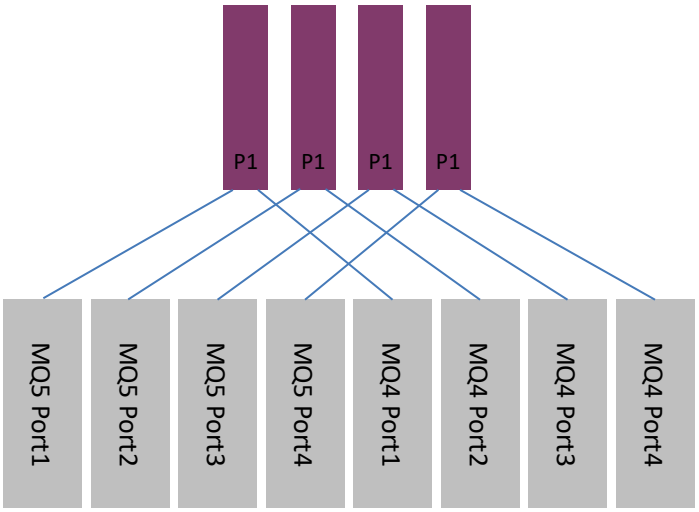
Correlation Table

Frequency Range	Array	Connector	RET
698–960 MHz	R1	1-2	BRxxx…….R1
1695–2690 MHz	Y1	3-4	BRxxx…….Y1
1695–2690 MHz	Y2	5-6	BRxxx…….Y2
1695–2690 MHz	Y3	7-8	BRxxx…….Y3
1695–2690 MHz	Y4	9-10	BRxxx…….Y4
3300-3800 MHz	P1	1xMQ5,1xMQ4	BRxxx…….P1

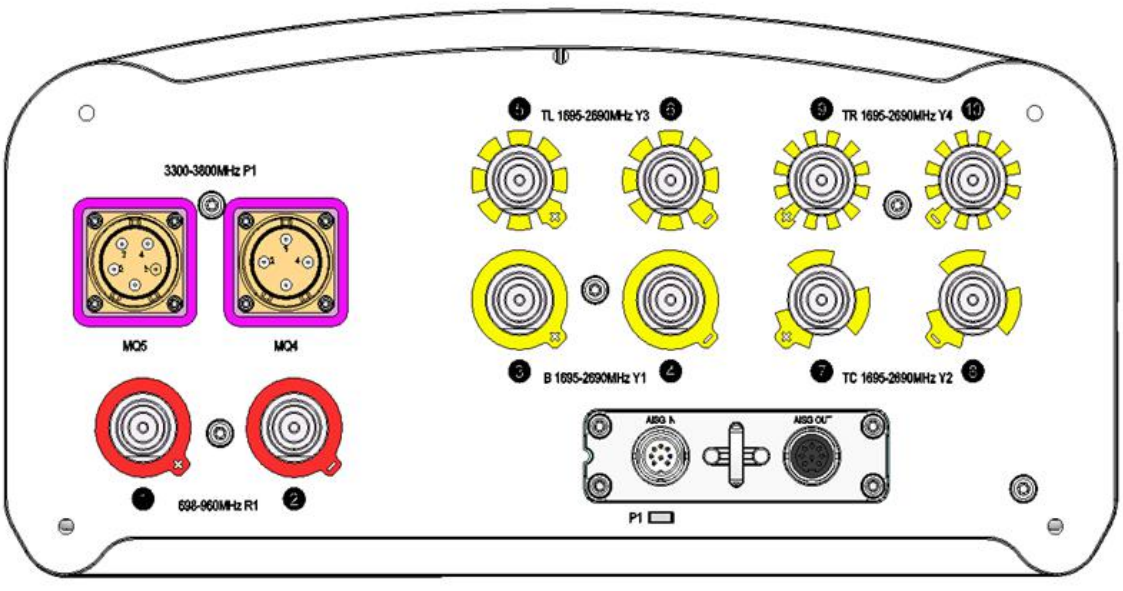


MQ4/MQ5 Port Mapping

Connector	Pin	Frequency	Polarization/Port
MQ5	1	3300-3800 MHz	+45
	2	3300-3800 MHz	+45
	3	3300-3800 MHz	+45
	4	3300-3800 MHz	+45
	5	3300-3800 MHz	Calibration port
MQ4	1	3300-3800 MHz	-45
	2	3300-3800 MHz	-45
	3	3300-3800 MHz	-45
	4	3300-3800 MHz	-45



Bottom View



Broadcast Beam Weight Value for Reference

		P1/P5	P2/P6	P3/P7	P4/P8
2C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	-20	180	-20
3C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	-16	180	-16
4C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	-12	180	-12
5C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	-8	180	-8
6C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	-4	180	-4
7C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	0	180	0
8C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	4	180	4
9C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	8	180	8
10C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	12	180	12
11C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	16	180	16
12C(3300-3800MHz)	Amp[li]	1	1	0.65	0.25
	Phase	0	20	180	20