

Frequency Range	698-960x2 1427-2690x6 3300-3800
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2°-12°x7

Type BMF5-2B6H1Q-SG65

Base Station Antenna

24-ports 2x698-960/6x1427-2690/3300-3800 MHz 65°, 2 x15 / 6 x15 /16 dBi, 2 x2°-12° / 6 x2°-12°/ 2°-12°Tilt Antenna With 7 Integrated RCUs.

Electrical Specifications



General parameters	Frequency range (MHz)		3300~3800
	Polarization		±45
	Electrical downtilt(°)		2~12
	Electrical downtilt tolerance(°)		±1
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port (dB)		-26±2
	Max.amplitude tolerance from calibration port to input ports(dB)		≤1
	Max.phase tolerance from calibration port to input ports(°)		≤9
	Ports VSWR		<1.5
	Avg. power per capacity (W)		40
	Co-polarization isolation between ports(dB)		≥20
Radiation parameters	Single column Beam	Gain(dBi)	15.7
		Horizontal 3dB beam width(°)	65
		Vertical 3dB beam width(°)	6
		Cross polar ratio(dB,0°)	≥16
		Front to back ratio(dB)	≥25
		Vertical sidelobe suppression for first sidelobe above main beam(dB)	≥15
	65° Broadcast beam	Gain(dBi)	16.6
		Horizontal 3dB beam width(°)	65
		Vertical 3dB beam width(°)	6
		Cross polar ratio(dB, 0°)	≥16
		Front to back ratio(dB)	≥25
		Vertical sidelobe suppression for first sidelobe above main beam(dB)	≥15
	Service beam	0°direct beam gain(dBi)	21.1
		0°direct beam horizontal 3dB beam width(°)	19
		0°direct beam front to back ratio(dB)	≥28
0°direct beam cross polar ratio(axial)(dB)		≥18	



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Frequency Range(MHz)	2x698-960			6x1427-2690					
	698-824	824-894	880-960	1427-1510	1695-1920	1920-2180	2300-2400	2490-2690	
Polarization	±45°								
Horizontal 3dB Beamwidth(°)	69±5	65±4	60±4	70±5	67±4	65±3	58±4	60±4	
Vertical 3dB Beamwidth(°)	14.5±0.9	13±0.6	12.3±0.5	16±0.8	14.5±0.6	13±0.6	11.5±0.6	10.5±0.6	
Gain (dBi)	13±0.5	13.5±0.5	14±0.5	13.5±0.5	14.0±0.5	14.3±0.5	14.6±0.5	14.8±0.5	
Electrical Downtilt	2°-12°			2°-12°					
Upper Sidelobe Suppression(dB)	First	≥16	≥16	≥16	≥16	≥16	≥16	≥16	≥16
Front-to-Back Ratio Total Power, ±30° (dB)		≥22	≥23	≥25	≥25	≥25	≥25	≥25	≥25
Cross polar ratio	Main direction(dB)	≥17	≥17	≥17	≥17	≥17	≥17	≥17	≥17
	±60° (dB)	≥7	≥7	≥7	≥7	≥7	≥7	≥7	≥7
Isolation ports	≥25 dB								
Isolation Frequency	≥30 dB								
VSWR	< 1.5								
Intermodulation IM3	< -150 dBc(2x43dBm carrier)								
Impedance	50 Ω								
Max. Power per Input (at 50°C ambient temperature)	500 W			250 W					
Lightning Protection	DC Ground								

Mechanical Specifications

Radome Material	Fiberglass
Connector Type and Location	4.3-10x16, Bottom 1xMQ5 Male+1xMQ4 Male iRCU in:2 x 8 pin male iRCU out:2 x 8 pin female
Dimensions, HxWxD(mm)	1500 x 499 x 180
Packing Size(mm)	1845 x 599 x 311
Weight ,w/o Mounting kit(kg)	35
Weight with Downtilt Bracket(kg)	42
Packing Weight (with Downtilt Bracket) (kg)	53
Max. Wind Velocity(mph)	150
Mounting hardware	φ 50 mm ~ φ 115 mm
Operational Temperature(°C)	-40 to +65
Operational Humidity(%)	<95
Wind Load at 100mph (Frontal/lateral/Rearside(N))	912/146/680

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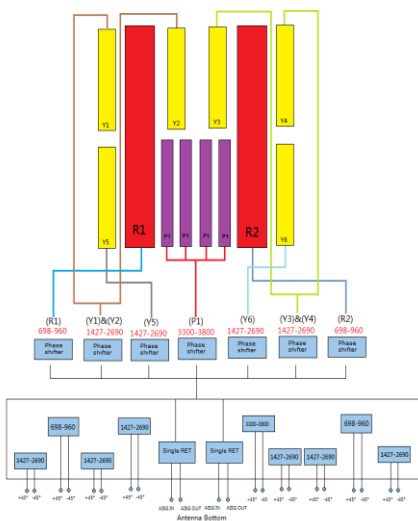
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Integrated RET Properties

RET Type	7x Type 1 Single RET	
Protocols	Compliant to AISG 2.0/3GPP	
Input voltage range	+10~+30VDC(pin 6)	
Power consumption	<2W(stand by);<13W(motor activated)	
Connectors	AISG	2 x 8 pin connector acc. To IEC 60130-9 Acc.to AISG Daisy chain in:male Daisy chain out:female
	Antenna	Two motor shaft(Embedded motor)
Hardware interface	AISG	RS485A/B(pin5/pin3);Power supply(pin6); DC return(pin7)Acc.to AISG
Adjustment time(full range)	40 sec(typically,depending on antenna)	
Adjustment Cycles	≥10000	
Torque Max	≥160mN.m	
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile,8/20 μs 10 Repetitions Min.@ 6kA IEC 61312-1 Annex B Current Pulse Profile, 10/350 μs,200 Repetitions Min. @ 0.6kA	

COMPREHENSIVE TILT CONFIGURATION

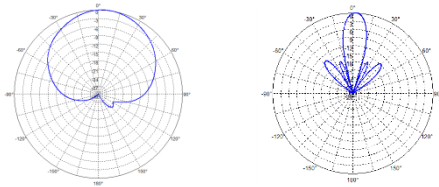


Frequency Range	Array	RET Unique ID
698-960MHz	R1	NDPMXXXXXXXXX-7090R1
698-960MHz	R2	NDPMXXXXXXXXX-7090R2
1427-2690MHz	Y1	NDPMXXXXXXXXX-1727Y1
1427-2690MHz	Y2	NDPMXXXXXXXXX-1727Y1
1427-2690MHz	Y3	NDPMXXXXXXXXX-1727Y3
1427-2690MHz	Y4	NDPMXXXXXXXXX-1727Y3
1427-2690MHz	Y5	NDPMXXXXXXXXX-1727Y5
1427-2690MHz	Y6	NDPMXXXXXXXXX-1727Y6
3300-3800MHz	P1	NDPMXXXXXXXXX-3338P1

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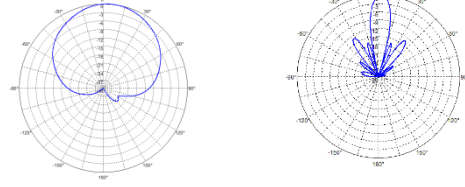
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Radiation Pattern (698 - 824MHz)



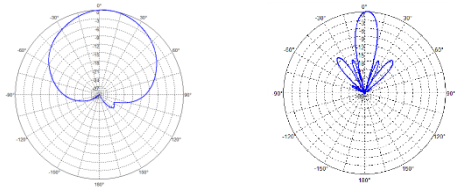
Horizontal Pattern Vertical Pattern

Radiation Patterns (824 - 960 MHz)



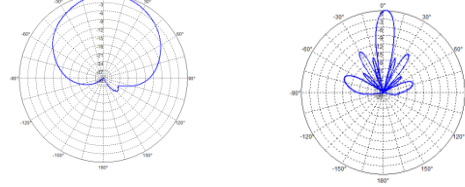
Horizontal Pattern Vertical Pattern

Radiation Patterns (1427- 2170 MHz)



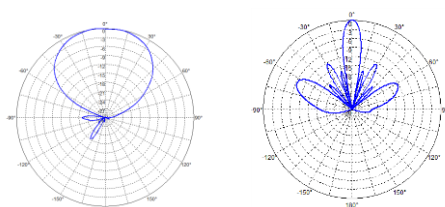
Horizontal Pattern Vertical Pattern

Radiation Patterns (2300 - 2400 MHz)



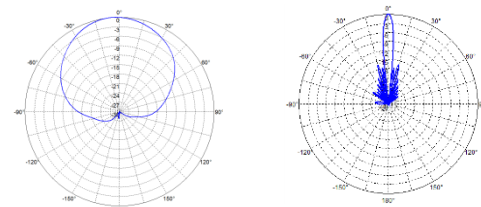
Horizontal Pattern Vertical Pattern

Radiation Pattern (2490- 2690 MHz)



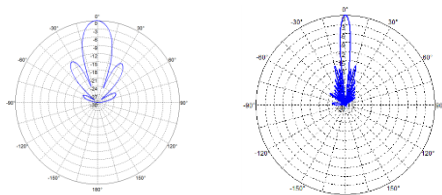
Horizontal Pattern Vertical Pattern

Radiation Pattern (3300- 3800 MHz)



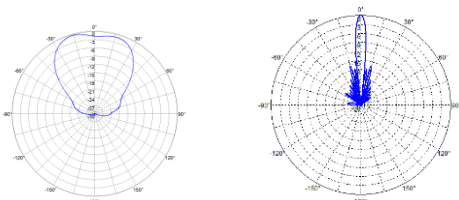
Horizontal Pattern Vertical Pattern

Radiation Pattern (3300- 3800 MHz)(Service Beam)



Horizontal Pattern Vertical Pattern

Radiation Pattern (3300- 3800 MHz)(Broadcast Beam)



Horizontal Pattern Vertical Pattern

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