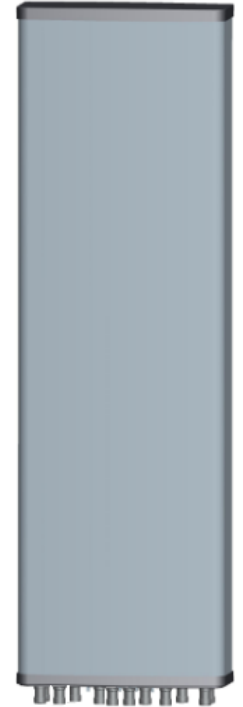


Type **BMF9-2LX6HX-CB65**

2 x 617-894 / 4 x 1695-2690 / 2500-2690 / 3300-3800 MHz 65° , 2 x 17 / 4 x 17 / 16 / 17 dBi, 2 x $2^\circ\text{-}12^\circ$ / 4 x $2^\circ\text{-}12^\circ$ / $2^\circ\text{-}12^\circ$ / $2^\circ\text{-}12^\circ$ Tilt Antenna With 8 Integrated RCUs.

Electrical Specifications

General parameters	Frequency range (MHz)		2500-2690	3300~3800
	Polarization		± 45	± 45
	Electrical downtilt($^\circ$)		2~12	2~12
	Electrical downtilt tolerance($^\circ$)		± 1	± 1
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port (dB)		-26 $\pm$ 2	-26 $\pm$ 2
	Max.amplitude tolerance from calibration port to input ports(dB)		≤ 0.9	≤ 0.9
	Max.phase tolerance from calibration port to input ports($^\circ$)		≤ 7	≤ 7
	Ports VSWR		<1.5	<1.5
	Avg. power per capacity (W)		40	40
	Co-polarization isolation between ports(dB)		≥ 20	≥ 20
	Cross-polarization isolation between ports(dB)		≥ 23	≥ 23
Radiation parameters	Single column Beam	Gain(dBi)	16	16.6
		Horizontal 3dB beam width($^\circ$)	85	65
		Vertical 3dB beam width($^\circ$)	5.5	4
		Cross polar ratio(dB, 0°)	≥ 16	≥ 16
		Front to back ratio(dB)	≥ 25	≥ 25
		Vertical sidelobe suppression for first sidelobe above main beam(dB)	≥ 15	≥ 15
	65° Broadcast beam	Gain(dBi)	17	17.6
		Horizontal 3dB beam width($^\circ$)	65	65
		Vertical 3dB beam width($^\circ$)	5.5	4
		Cross polar ratio(dB, 0°)	≥ 16	≥ 16
		Front to back ratio(dB)	≥ 25	≥ 25
		Vertical sidelobe suppression for first sidelobe above main beam(dB)	≥ 15	≥ 15
	Service beam	0° direct beam gain(dBi)	21	22
		0° direct beam horizontal 3dB beam width($^\circ$)	25	19
		0° direct beam front to back ratio(dB)	≥ 28	≥ 28
		0° direct beam cross polar ratio(axial)(dB)	≥ 18	≥ 18





Base Station Antennas

Type **BMF9-2LX6HX-CB65**

Frequency Range

617-894x2
1695-2690x4
2500-2690
3300-3800

Polarization

±45°

Half-Power Beam Width

65°

Electrical Downtilt

2°-12°x8

Frequency Range(MHz)		2x617-894			4x1695-2690			
		617-698	698-824	824-894	1695-1920	1920-2180	2300-2400	2490-2690
Polarization		±45°						
Horizontal 3dB Beamwidth(°)		71	65	60	66	63	58	60
Vertical 3dB Beamwidth(°)		9.0	8.0	7.0	9.2	8.2	7.2	6.5
Gain (dBi)		15.3	16	16.5	16.3	16.6	16.9	17.1
Electrical Downtilt		2°-12°			2°-12°			
Upper Sidelobe Suppression(dB)	First	≥16	≥16	≥16	≥16	≥16	≥16	≥16
Front-to-Back Ratio Total Power, ± 30° (dB)		≥22	≥23	≥24	≥25	≥25	≥25	≥25
Cross polar ratio	Main direction(dB)	≥17	≥17	≥17	≥17	≥17	≥17	≥17
	± 60° (dB)	≥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	4.3-10x12, Bottom 2xMQ5 Male+2 xMQ4 Male iRCU in:2 x 8 pin male iRCU out:2 x 8 pin female
Dimensions,HxWxD(mm)/(inches)	2700 x 499 x 180 / 106.3 x 19.6 x 7.1
Packing Size(mm)/(inches)	3045 x 599 x 311 / 119.9 x 23.6 x 12.2
Weight ,w/o Mounting kit(kg)/(lbs)	62 / 136.4
Weight with Downtilt Bracket(kg)/(lbs)	69 /151.8
Weight with Fixed Bracket(kg)/(lbs)	67 /147.4
Packing Weight (with Downtilt Bracket) (kg)/(lbs)	80 /176
Packing Weight (with Fixed Bracket) (kg)/(lbs)	78 / 171.6
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))	1659/265/1237

This publication is issued to information only and is not to form part of any order or contract DENGYO reserves the right to changes specifications without prior notice.

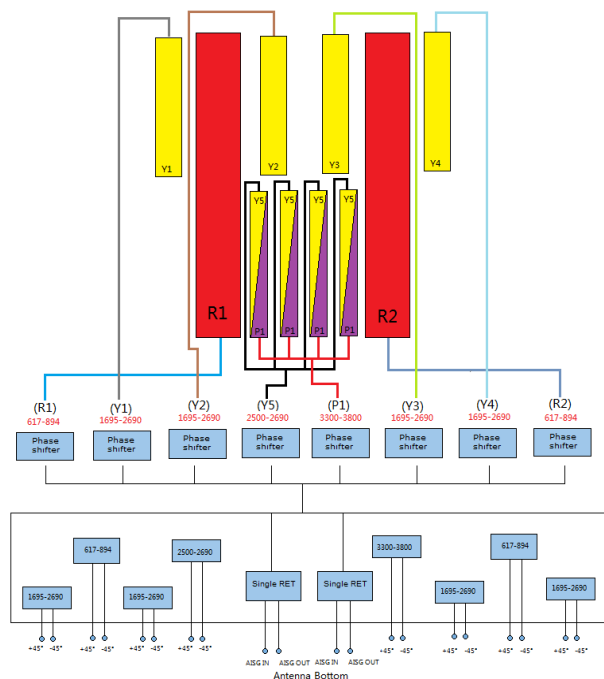
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BMF9-2LX6HX-CB65 A01

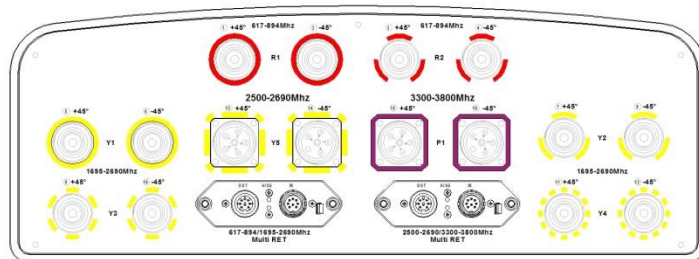
Integrated RET Properties

RET Type	8x 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	$\geq 160\text{mN.m}$	
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

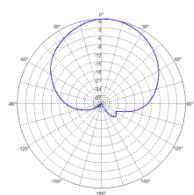


Frequency Range	Array	RET Unique ID
617-894MHz	R1	NDPMXXXXXXXX-6089R1
617-894MHz	R2	NDPMXXXXXXXX-6089R2
1695-2690MHz	Y1	NDPMXXXXXXXX-1727Y1
1695-2690MHz	Y2	NDPMXXXXXXXX-1727Y2
1695-2690MHz	Y3	NDPMXXXXXXXX-1727Y3
1695-2690MHz	Y4	NDPMXXXXXXXX-1727Y4
2500-2690MHz	Y5	NDPMXXXXXXXX-2527Y5
3300-3800MHz	P1	NDPMXXXXXXXX-3338P1

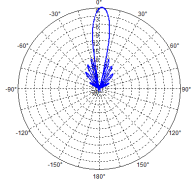


Type BMF9-2LX6HX-CB65

Radiation Pattern (617 - 824MHz)

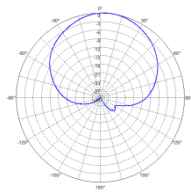


Horizontal Pattern

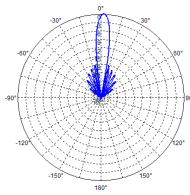


Vertical Pattern

Radiation Patterns (824 - 894 MHz)

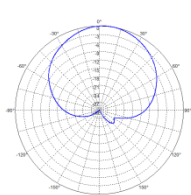


Horizontal Pattern

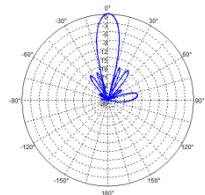


Vertical Pattern

Radiation Patterns (1695 - 2170 MHz)

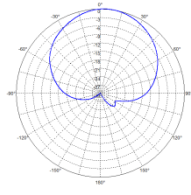


Horizontal Pattern

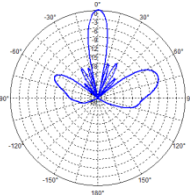


Vertical Pattern

Radiation Patterns (2300 - 2400 MHz)

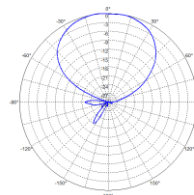


Horizontal Pattern

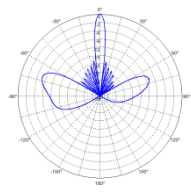


Vertical Pattern

Radiation Pattern (2490- 2690 MHz)

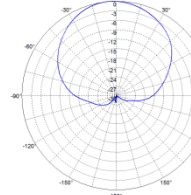


Horizontal Pattern

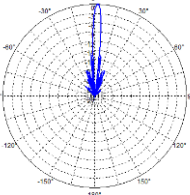


Vertical Pattern

Radiation Pattern (3300- 3800 MHz)

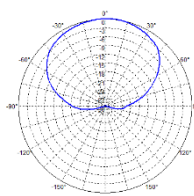


Horizontal Pattern

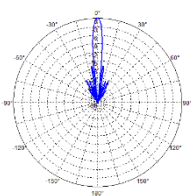


Vertical Pattern

Radiation Pattern (2500- 2690 MHz)

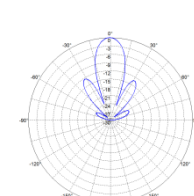


Horizontal Pattern

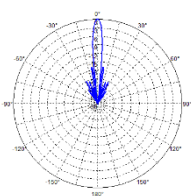


Vertical Pattern

Radiation Pattern (2500- 2690 MHz)(Service Beam)



Horizontal Pattern

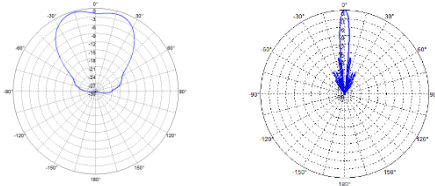


Vertical Pattern

Type **BMF9-2LX6HX-CB65**

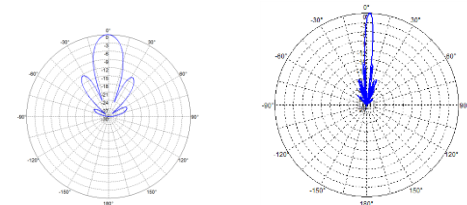
Frequency Range	617-894x2
	1695-2690x4
	2500-2690
Polarization	3300-3800
	$\pm 45^\circ$
Half-Power Beam Width	65°
Electrical Downtilt	2° - $12^\circ \times 8$

Radiation Pattern (2500- 2690 MHz)(Broadcast Beam)



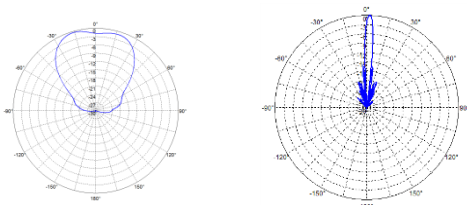
[Horizontal Pattern](#) [Vertical Pattern](#)

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



[Horizontal Pattern](#) [Vertical Pattern](#)

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



[Horizontal Pattern](#) [Vertical Pattern](#)