

SL-2L4M4H-4P609015-8P172717-8P233816-E12-V01

2*690-960/4*1710-2690/4*2300-3800MHz

65/65/65/65/65/65/65/65/65deg

15/15/17/17/17/17/16/16/16/16 dBi XXXXXXXXXXXX 20+1 port antenna

Integrated and replaceable RCU, each band individually adjustable

4.3-10(F)×12+MQ4×1+MQ5×1 connectors @bottom

Antenna Specifications

Electrical Properties					
Frequency Range(MHz)		R1/R2:690-960			
		690-803	790-862	824-894	880-960
Gain (dBi)	at middle tilt	14.2	14.5	14.8	15.2
	over all tilt	14.0±0.5	14.3±0.5	14.6±0.5	15.0±0.5
Polarization		+45°/-45°			
Horizontal -3dB Beamwidth(°)		70±6	67±5	66±5	62±5
Vertical -3dB Beamwidth(°)		11.2±1.2	10.2±0.9	9.0±0.9	8.2±0.8
Electrical Downtilt(°)		2-12, continuously adjustable			
First Upper Side Lobe Suppression (Typ.)(dB)		≥15.0	≥15.0	≥15.0	≥15.0
Cross Polar Ratio (0°)(dB)		≥15.0	≥15.0	≥15.0	≥15.0
Front to Back Ratio, ±30°(dB)		≥25.0	≥25.0	≥25.0	≥25.0
VSWR		<1.5			
Cross-polar Isolation (dB)		≥25			
Inter-band Isolation (dB)		≥25			
PIM3 (2×43 dBm carrier)(dBc)		≤-153			
Impedance(Ω)		50			
Grounding		DC Ground			
Max. Average Input Power per Port(W)		350 (at 50℃ ambient temperature)			

Frequency Range(MHz)		Y1/Y2/Y3/Y4:1710-2690			
		1710-1990	1920-2200	2200-2490	2490-2690
Gain (dBi)	at middle tilt	15.2	15.5	15.8	16.2
	over all tilt	15.0±0.7	15.3±0.5	15.6±0.5	16.0±0.6
Polarization		+45°/-45°			
Horizontal -3dB Beamwidth(°)		69±6	66±6	61±6	58±6
Vertical -3dB Beamwidth(°)		10.5±1.0	9.5±0.8	8.5±0.7	7.5±0.6
Electrical Downtilt(°)		2-12, continuously adjustable			
First Upper Side Lobe Suppression (Typ.)(dB)		≥15.0	≥15.0	≥15.0	≥15.0
Cross Polar Ratio (0°)(dB)		≥15.0	≥15.0	≥15.0	≥15.0
Front to Back Ratio, ±30°(dB)		≥25.0	≥25.0	≥25.0	≥25.0

VSWR	<1.5
Cross-polar Isolation (dB)	≥25
Inter-band Isolation (dB)	≥25
PIM3 (2×43 dBm carrier)(dBc)	≤-153
Impedance(Ω)	50
Grounding	DC Ground
Max Input Power per Port (W)	250 (at 50℃ ambient temperature)

General parameters	Frequency range (MHz)		P1:2300-3800	
			2300-2690	3300-3800
Polarization			+45°, -45°	
Electrical downtilt (°)			2-12, continuously adjustable	
Grounding			DC Ground	
Calibration and electrical parameters	Coupling factor between calibration port and each RF port (dB)		-26±2	
	Max. amplitude tolerance from calibration port to RF ports (dB)		≤1.0	
	Max. phase tolerance from calibration port to RF ports (°)		≤10	
	VSWR		≤1.5	
	Co-polarization isolation between ports (dB)		≥22	
	Cross-polarization isolation between ports (dB)		≥22	
	Max Input Power per Port (W)		50(at 50℃ ambient temperature)	
	Single column beam	Gain Overall Tilts (dBi)	15.5	16.5
		Horizontal 3dB beam width (°)	70	50
		Vertical 3dB beam width (°)	6.0	4.0
		Cross polar ratio (0°) (dB)	≥15	≥15
		1st upper side lobe suppression above main beam (dB)	≥15	≥15
		Front to back ratio (dB)	≥25	≥25
	65° Broadcast beam	Gain Overall Tilts (dBi)	16.5	17.5
		Horizontal 3dB beam width (°)	65	60
		Vertical 3dB beam width (°)	6.0	4.0
		1st upper side lobe suppression above main beam (dB)	≥15	≥15
		Front to back ratio (dB)	≥25	≥25
	Service beam	0° direction beam gain (dB)	20.5	21.5
		0° direction beam Front to back ratio (dB)	≥30	≥30
		0° direction beam Cross polar ratio (0°) (dB)	≥18	≥18
		30° direction beam gain (dB)	19.0	/
		30° direction beam Front to back ratio (dB)	≥30	/
		30° direction beam Cross polar ratio (0°) (dB)	≥18	/

Values based on NGMN-N-P-BASTA V11.1

A member of



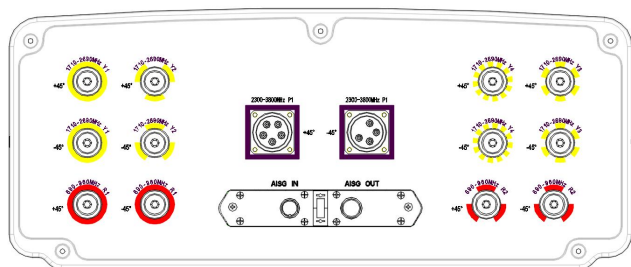
Certifications



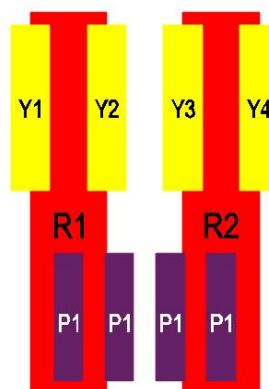
Mechanical Properties	
Radome Material	Fiberglass
Radome Colour	Light Grey
Connector Type	4.3-10(F)×12+MQ4×1+MQ5×1
Antenna Dimension (H×W×D)(mm)	2100×499×205
Packing Size (H×W×D)(mm)	2485×554×240
Antenna Net Weight (approx.) (kg)	42
Installation Kit Weight(kg)	5.6 (2 units)
Mechanical Downtilt(°)	0-10
Mast Diameter Supported(mm)	50-114
Pole Length(mm)	>2000
Operating Temperature(℃)	-40-+65
Wind Load (at 150 km/h)	1478/607/1478N(Frontal/Lateral/Rear side)
Maximum Wind Speed (km/h)	200

RET Properties	
Power Supply	10-30V dc
Power Consumption	≤2W (Idle), ≤10W (in Motion)
Hardware Interface	RS 485A/B(pin5, pin3); power supply(pin1, pin6); DC return(pin 7); according to AISG 2.0/3GPP
Logical Interface	HEX Coded Commands Based on HDLC Protocol
Protocol Supported	AISG 2.0/3GPP
Adjustment Time (Full Range)	<90s(typical, depending on model)
Adjustment Cycles	>20000
Torque Max.	≥160 mN.m
Lightning Protection Rate	IEC 61000-4-5 Current Pulse Profile, 8/20 μs Min. @8kA±5 Repetitions
Connectors	2 Circle Connector According to IEC 60130-9 and AISG. Daisy Chain In: Male, Daisy Chain Out: Female

Antenna Ports

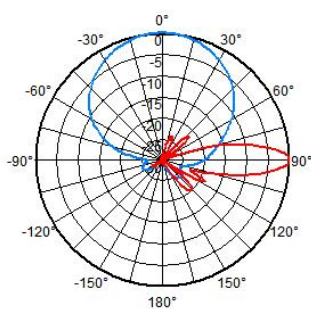


Array Layout

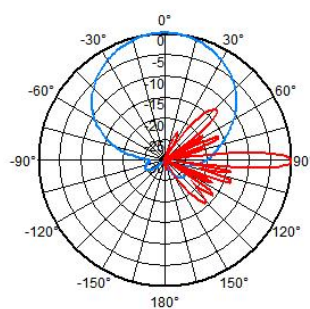


Reference Radiation Patterns

690-960MHz(65 deg)



1710-2690MHz(65 deg)



2300-3800MHz(8T8R)

Column beam

Broadcast beam

0° Service beam

30° Service beam

