



MS-A2-301-A
Mid I-BAR_3 in 1 Antenna
4G LTE / Wi-Fi 6 / GNSS

Electrical Specifications

4G LTE Antenna Characteristics

Frequency Range, MHz	698-960	1710-2690
VSWR	2.5 Max.	2.5 Max.
Peak Gain, dBi	6.0 Typ.	4.0 Typ.
Efficiency, %	70	67
Polarization	Linear	
Impedance	50Ω	

Wi-Fi 6 Antenna Characteristics

Frequency Range, MHz	2400-2500	5150-5850
VSWR	2.0 Max.	2.0 Max.
Peak Gain, dBi	4.5 Typ.	3.0 Typ.
Efficiency, %	65	65
Polarization	Linear	
Impedance	50Ω	

4G LTE & Wi-Fi 6 test cable length : 1m (CFD-200)

GNSS Antenna Characteristics

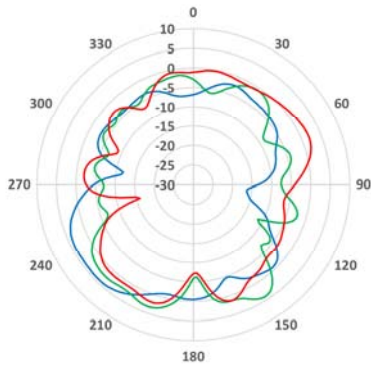
Center Frequency, MHz	1561±2	1575.42±3	1602±4
VSWR	3.0 Max.		
Gain@ Zenith ,dBi	3.0 Typ.	2.0 Typ.	4.0 Typ.
Efficiency, %	50	35	60
Polarization	Linear		
Impedance	50Ω		

GNSS test cable length : 10cm

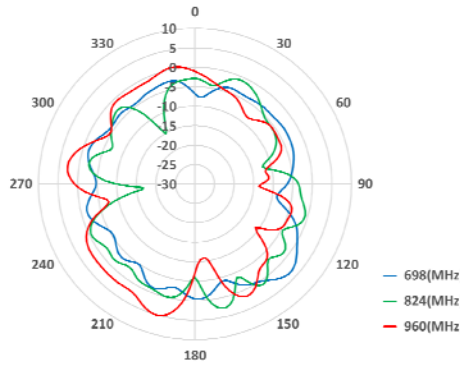
GNSS LNA Properties

Frequency Range, MHz	1559-1608
Impedance	50Ω
Output Return Loss(S ₁₁), dB	10 Min.
Gain@ 3.3V, dB	28±3
Noise Figure@ 3.3V, dB	1.5 Typ.
DC Power Input , V	3.3
Power Consumption@ 3.3V, mA	9±2.5
ESD Withstand Voltage, KV	±8 contact; ±15 air

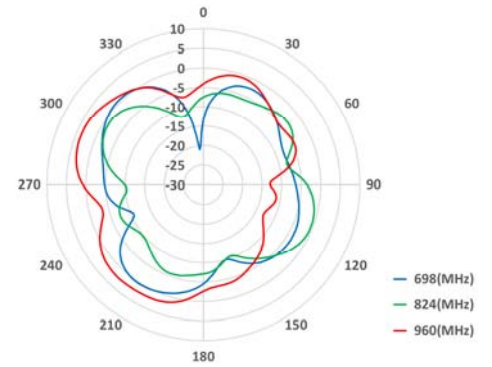
4G LTE Antenna 2D Patterns



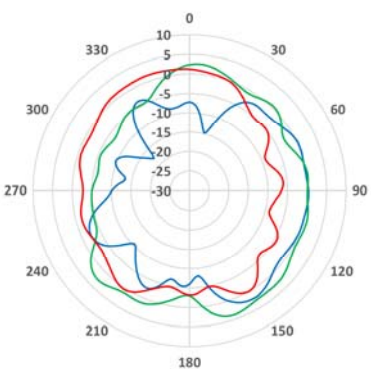
X-Z



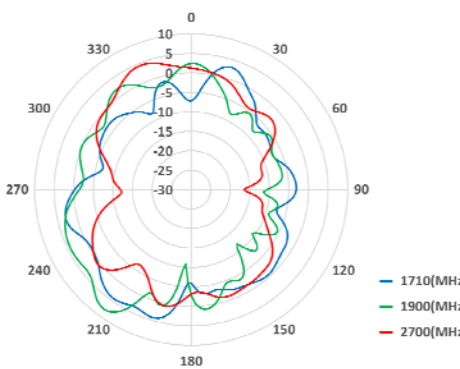
Y-Z



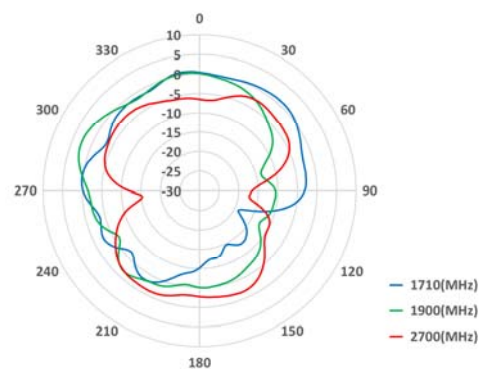
X-Y



X-Z

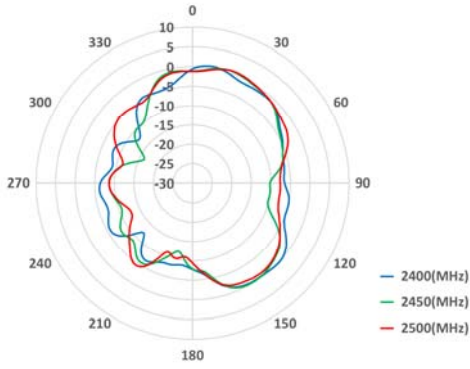


Y-Z

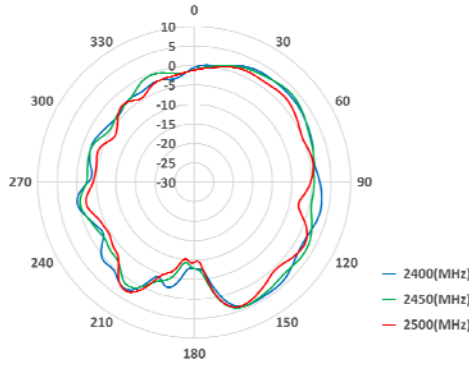


X-Y

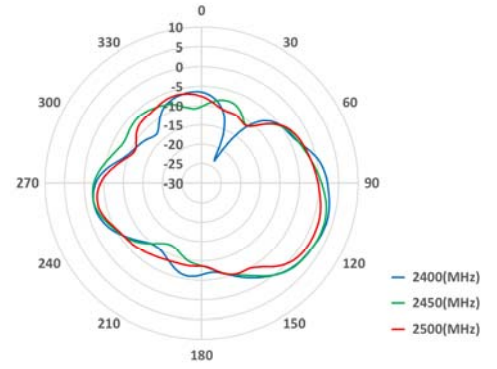
Wi-Fi 6 Antenna 2D Patterns



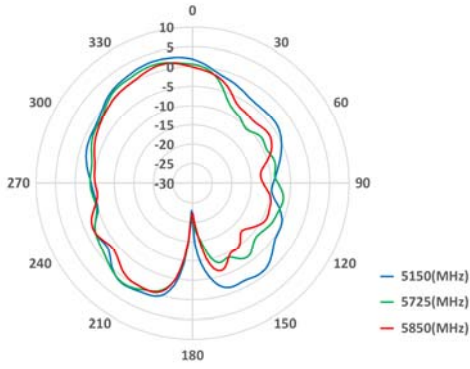
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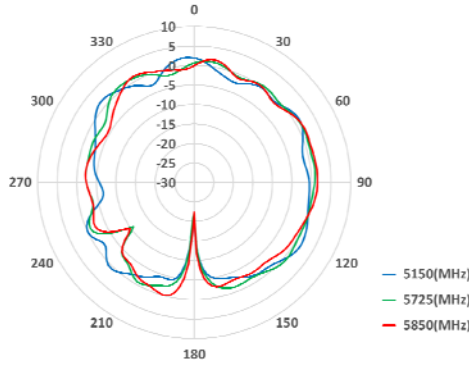
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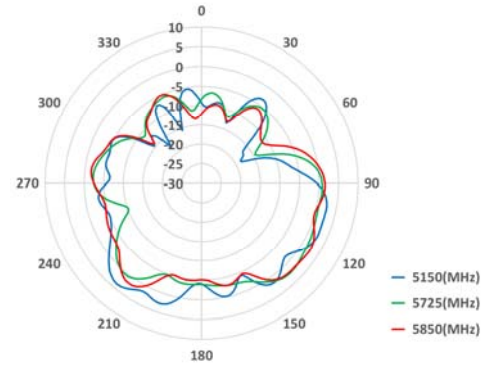
X-Y



X-Z

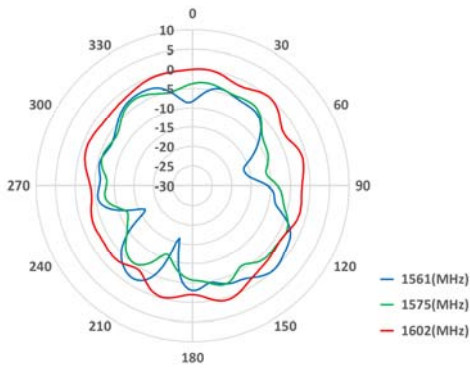


Y-Z

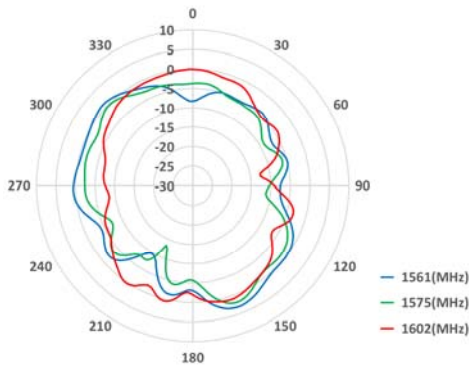


X-Y

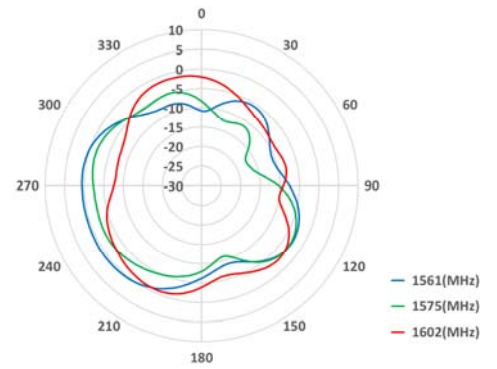
GNSS Antenna 2D Patterns



X-Z



Y-Z



X-Y

Mechanical Specifications

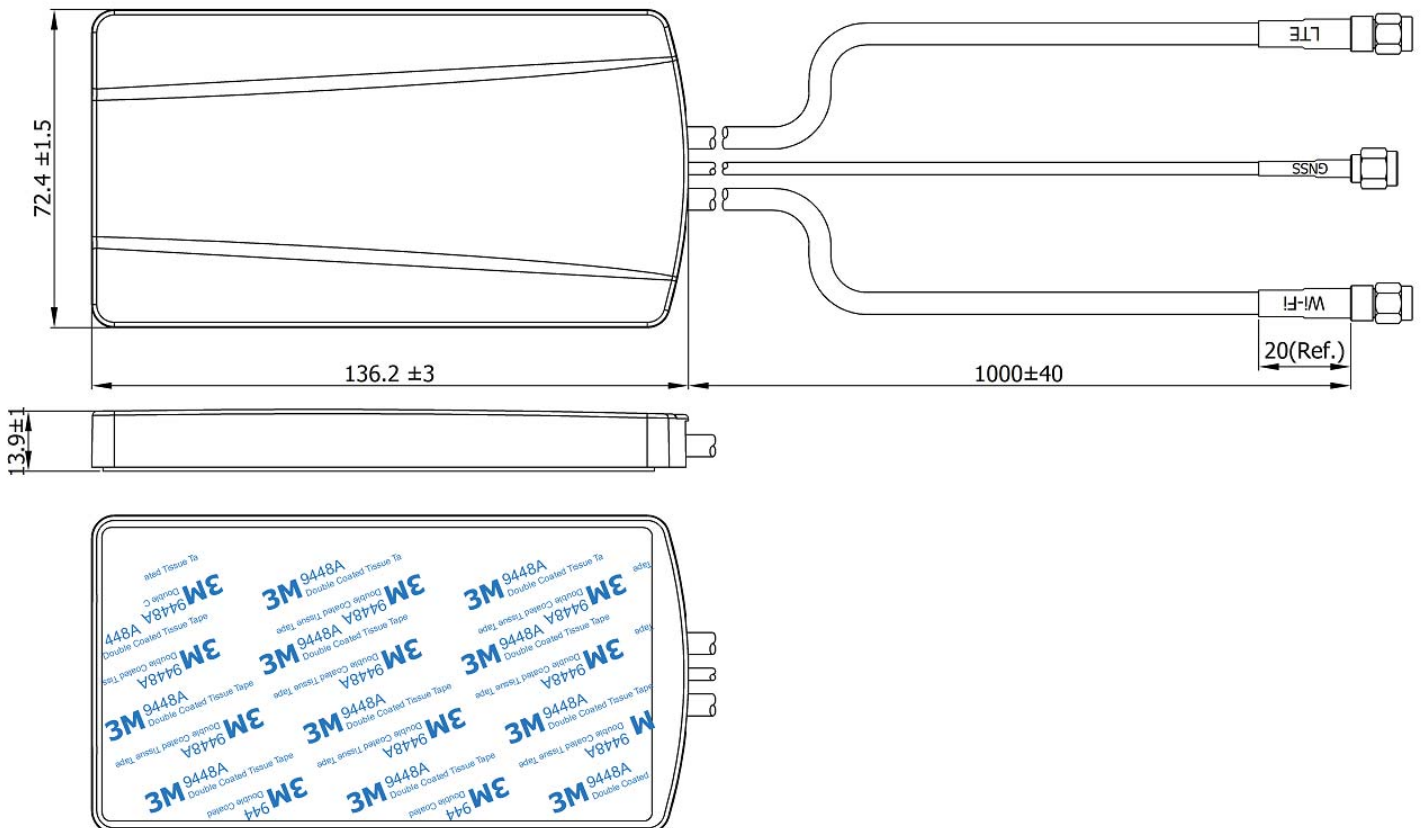
Environmental

Antenna Dimensions	(L)136.2×(W)72.4×(H)13.9 mm ³
Weight	186g
Mounting Function	Adhesive Mount
Operating Temperature	-40~ + 85°C
Housing Material & Color	PC+ABS & Black
Cable	4G LTE : CFD-200 Wi-Fi 6 : CFD-200 GNSS : RG-174
Connector	SMA or your specification
Waterproof	IPX7

Reliability Test

Cold Temperature	-40°C,24Hr
High Temperature	+85°C,48Hr

Mechanical Drawing



Unit : mm