

MOTOROLA

TETRA 350-470 MHz, GNSS, BT/WiFi Combined Antenna for MXM600

PMAE4115A Panel Mount & PMAE4116A Magnetic Mount



Designed as an all-in-one solution for the MXM600 radio, PMAE4115A and PMAE4116A antennas support TETRA (UHF), Bluetooth/Wi-Fi 6E/7 and GNSS from a single antenna.

ELECTRICAL SPECIFICATION - PANEL MOUNT (PMAE4115A)					
	BT / Wi-Fi			UHF	GNSS
Operating Frequency (MHz)	2400 - 2500 MHz	4900 - 6000 MHz	6000 - 7125 MHz	350 - 470 MHz	1559 - 1606 MHz
VSWR – Max	<1.4:1	<1.4:1	<1.6:1	<2.4:1	<2.1:1
Gain – Max (dBi)	4.9	8.2		4.0	36 (Active)
Efficiency %	67	64		70	-
Beamwidth Average	Az: 84 / 85 EI 0: 30 / 38 EI 90: 83 / 37			Az: 360 EI 0: 61 EI 90: 54	EI 0: 38 EI 90: 71
ELECTRICAL SPECIFICATION - MAGNETIC MOUNT (PMAE4116A)					
	BT / Wi-Fi			UHF	GNSS
Operating Frequency (MHz)	2400 - 2500 MHz	4900 - 6000 MHz	6000 - 7125 MHz	350 - 470 MHz	1559 - 1606 MHz
VSWR – Max	<1.3:1	<1.6:1	<1.5:1	<2.3:1	<2.0:1
Gain – Max (dBi)	6.0	9.0		4.0	36 (Active)
Efficiency, %	69	57		65	-
Beamwidth Average	Az: 66 / 59 EI 0: 32 / 44 EI 90: 36 / 35			Az: 360 EI 0: 59 EI 90: 51	EI0: 57 EI90: 73
COMMON SPECIFICATIONS					
Power Input - Max (W)	10			30	-
Port-to-port Isolation (dB)	GNSS-UHF > 54 GNSS-WI-FI > 37				
Impedance (Ohms)	50				
Azimuth Beamwidth	Omnidirectional				
Polarization	Linear Vertical				

ELECTRICAL SPECIFICATION - GNSS*

Frequency	1559-1606	
LNA Gain (dB)	28 ± 3	
Noise Figure @ room temp. (dB)	< 2.5 @ 1575 MHz	
VSWR Max	<2.0:1	
Polarization	RHCP	
Nominal Impedance (ohm)	50	
Operating Supply Voltage (Vdc)	2.5-7.0	
Current Consumption, Max @ room temp. (mA)	8.5 ± 3 @ 3.0V	
Input Max Power @ DC 3V (dBm)	+10	
Out-of-Band Rejection (dBc)	698-960	>80
	1428-1511	>80
	1710-2700	>80
	4900-5800	>70
Cable Type	RG174	

* Measured with 5m RG174 cable

MECHANICAL SPECIFICATION

Dimensions – length x width x height – mm (in.)	Panel Mount 139.2 x 69.2 x 48.6 (5.48 x 3.78 x 1.91) Magnet Mount 138.2 x 68.3 x 45.6 (5.44 x 2.69 x 1.79)
Weight – kg (lbs.)	Panel Mount 0.72 (1.59) Magnet Mount 0.78 (1.72)
Radome	Polycarbonate (PC)
Flammability Rating	UL94-V0
IP Rating	IP67, IP69K
Mounting	Magnet / Panel Stud

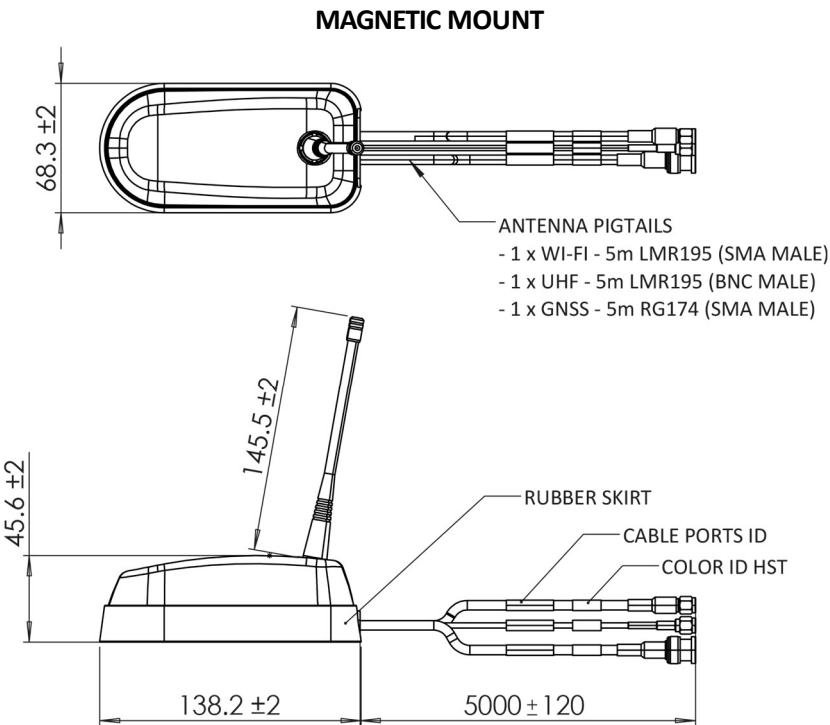
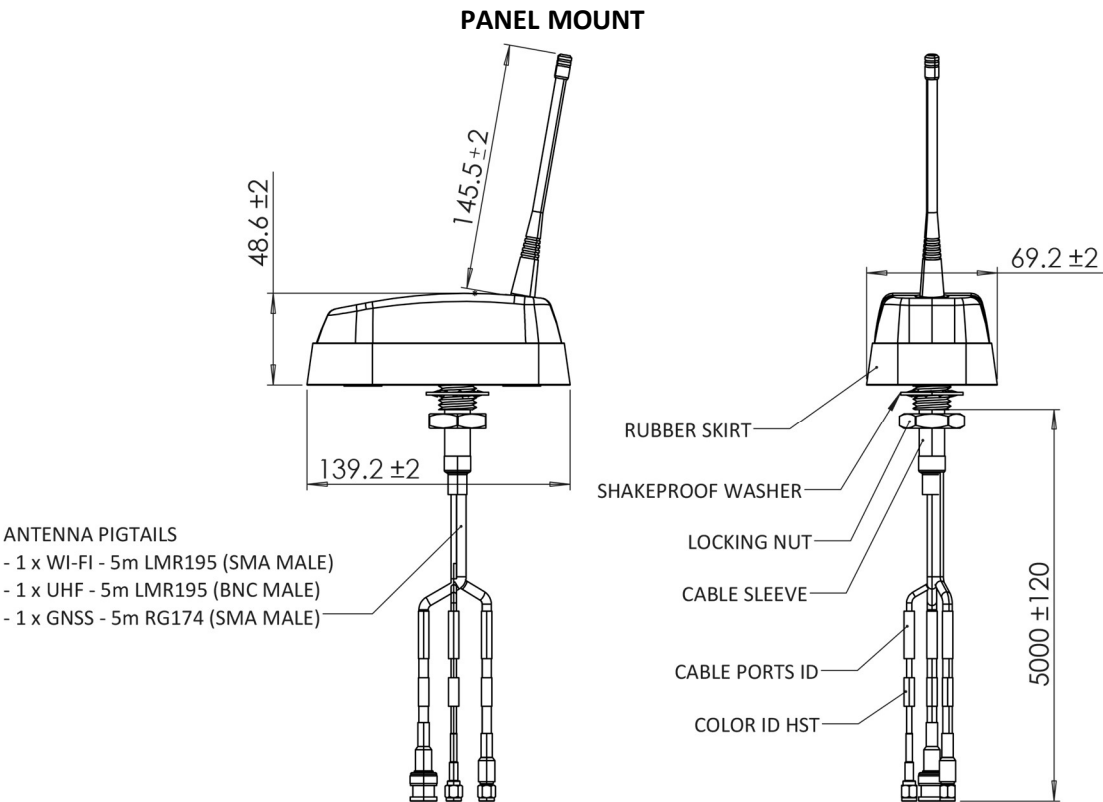
ENVIRONMENTAL SPECIFICATION

Operating Temperature – °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature – °C (°F)	-40 to +85 (-40 to +185)
Material Substance Compliance	ROHS UKCA & CE Compliant

CONFIGURATION

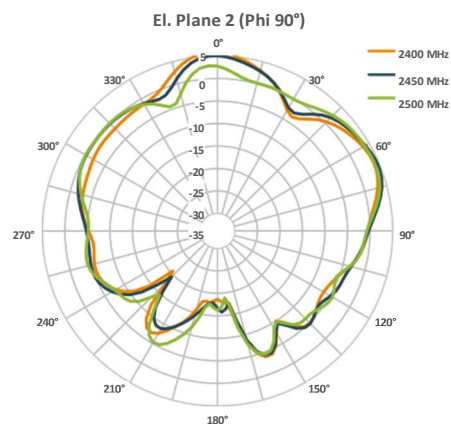
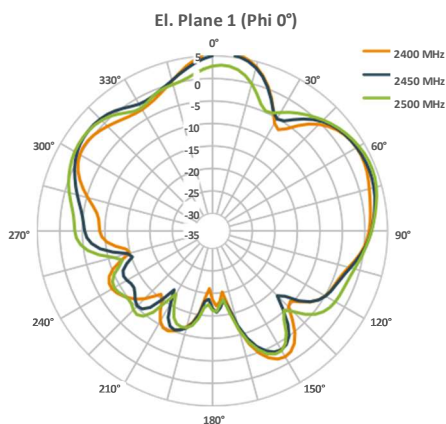
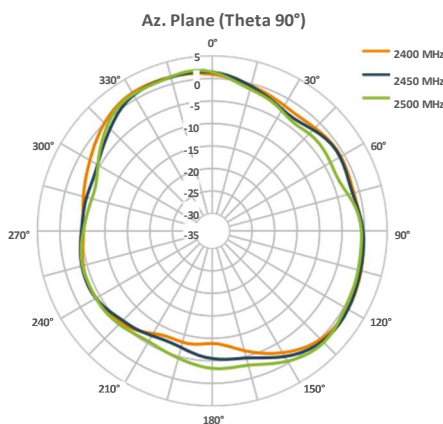
PART NUMBER	MOUNTING TYPE	CABLE TYPE & LENGTH	CONNECTOR
PMAE4115A	Panel/Permanent/Stud	Wi-Fi - LMR195-type - 5m / 16ft UHF - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	Wi-Fi - SMA Male (IP67-Rated) UHF - BNC Male (IP67-Rated) GNSS - SMA Male (IP67-Rated)
PMAE4116A	Magnetic	Wi-Fi - LMR195-type - 5m / 16ft UHF - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	Wi-Fi - SMA Male (IP67-Rated) UHF - BNC Male (IP67-Rated) GNSS - SMA Male (IP67-Rated)

MECHANICAL DRAWINGS

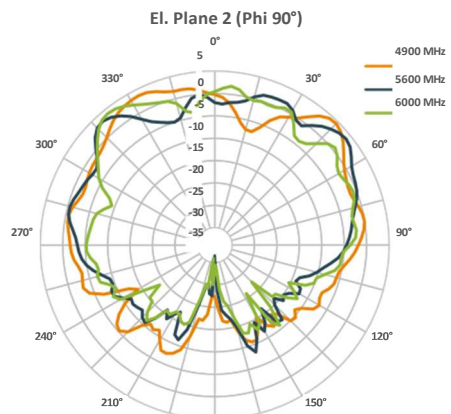
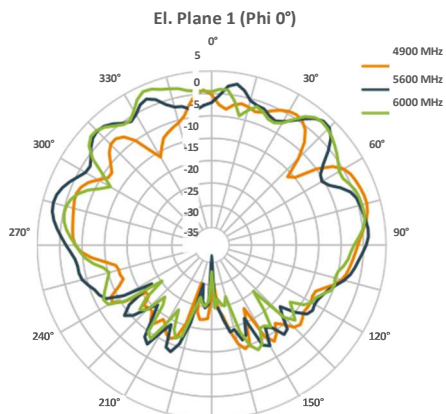
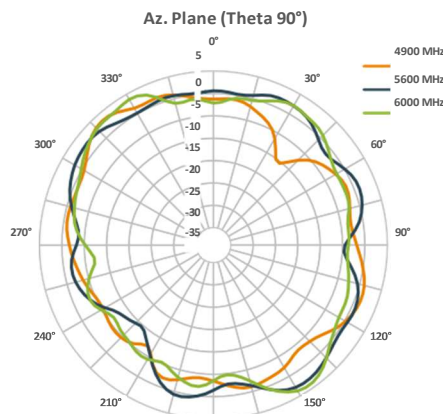


RADIATION PATTERNS - MAGNETIC MOUNT - WI-FI

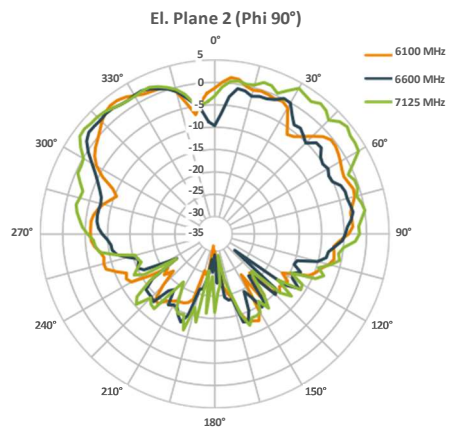
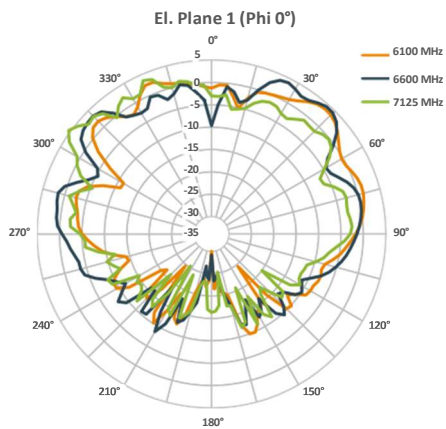
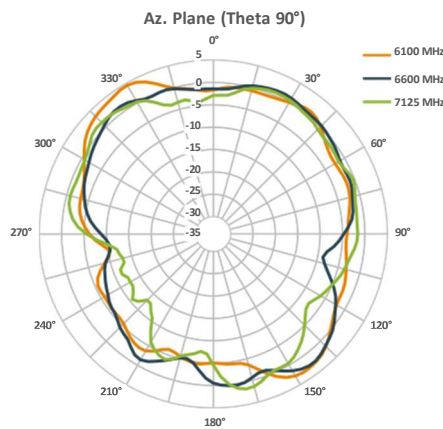
2400 - 2500 MHz



4900 - 6000 MHz

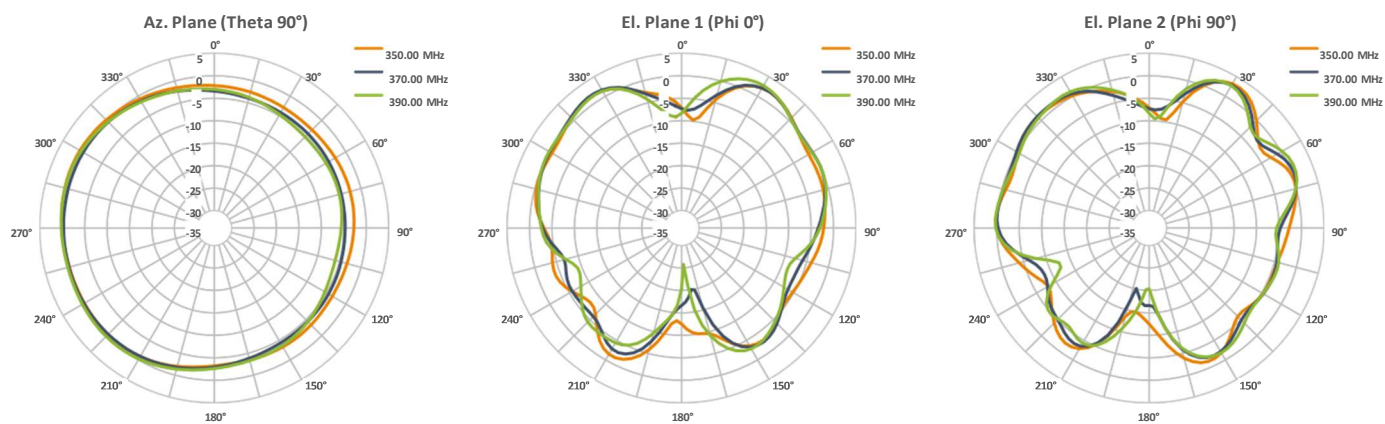


6000 - 7125 MHz

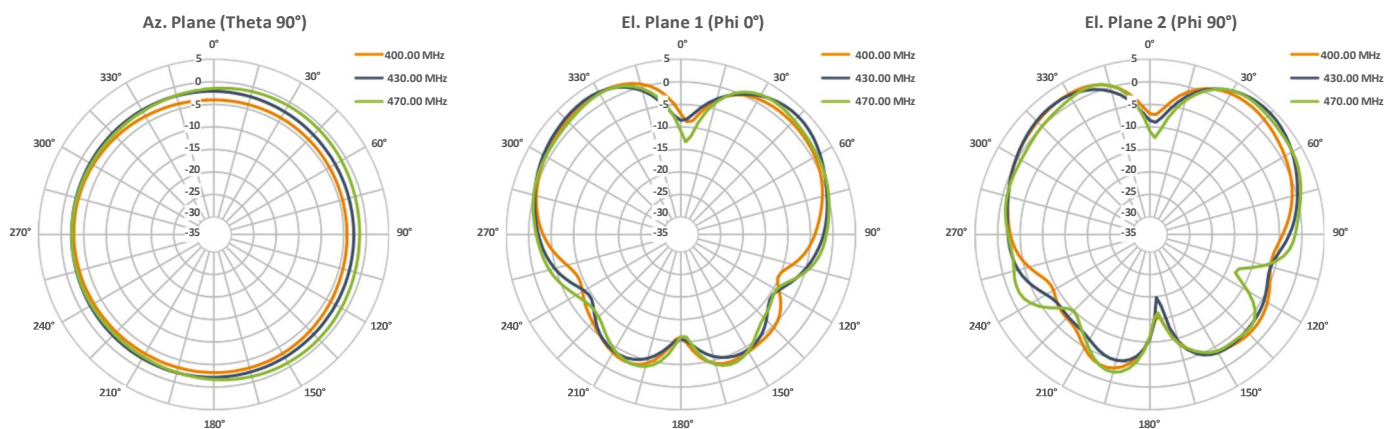


RADIATION PATTERNS - MAGNETIC MOUNT - UHF

350 - 390 MHz

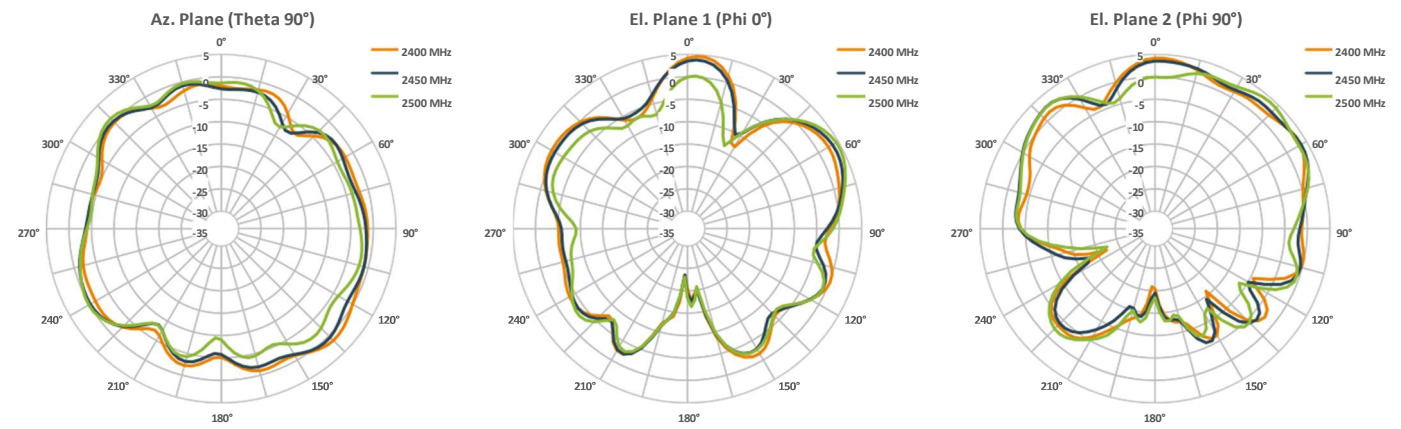


400 - 470 MHz

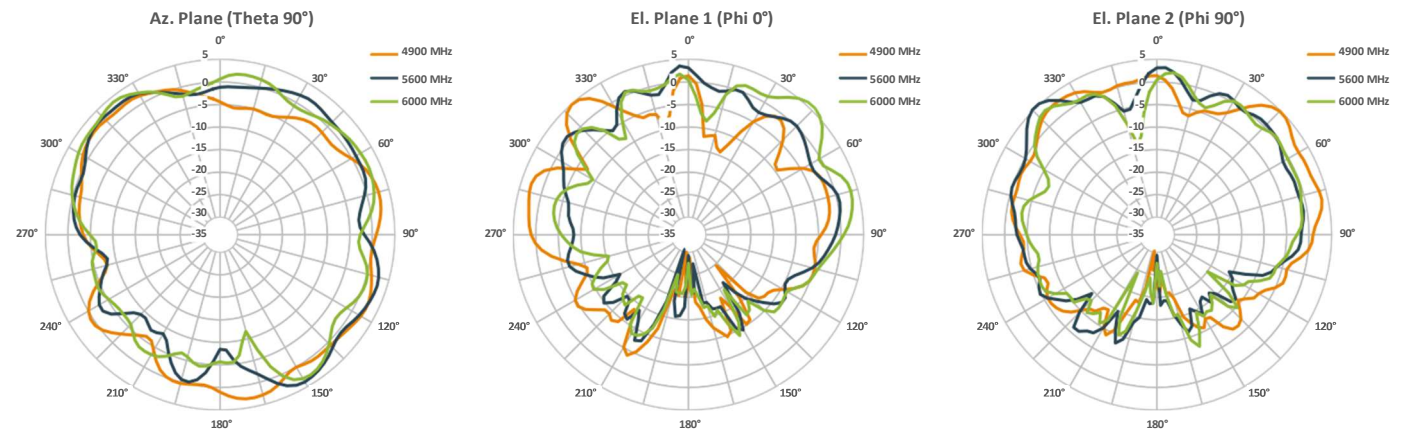


RADIATION PATTERNS - PANEL MOUNT - WI-FI

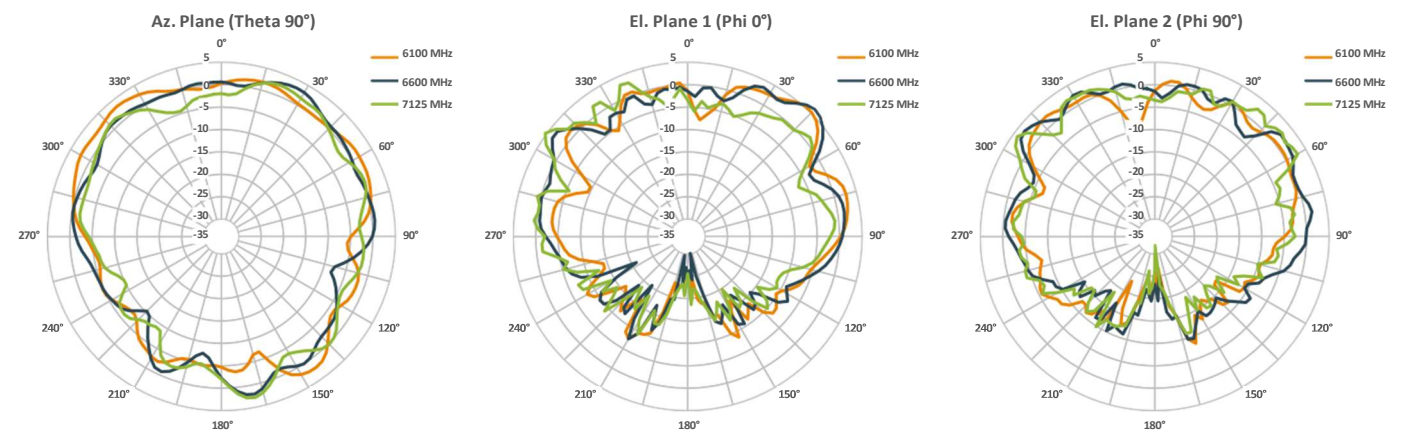
2400 - 2500 MHz



4900 - 6000 MHz

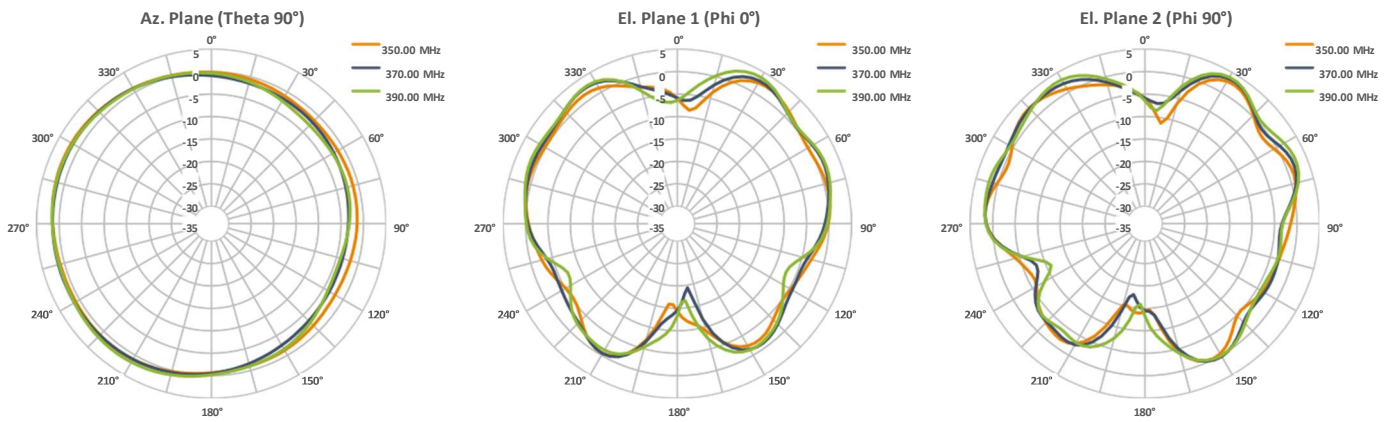


6000 - 7125 MHz



RADIATION PATTERNS - PANEL MOUNT - UHF

350 - 390 MHz



400 - 470 MHz

