



FPL pro

Multi-Port TETRA (UHF), Wi-Fi 6E/7 & GNSS Vehicular Antennas

FPL pro antennas offer a compact and high performance antenna solution for vehicular applications.

Designed as an all-in-one solution for TETRA gateways and radios, FPL pro antennas offer combinations of TETRA (UHF), Wi-Fi 6E/7 and GNSS from a single antenna.

Permanent mount and magnetic mount options allow customers a range of choices to suit their needs.

FEATURES AND BENEFITS

- Permanent and magnetic mount variants available
- Extensive mechanical and environmental testing/ compliance including IP67, IP69K IP rating
- Compact multi-port vehicular antenna
- TETRA (UHF), Wi-Fi 6E/7 and GNSS in a single antenna

ELECTRICAL SPECIFICATION - PERMANENT MOUNT

Port	Wi-Fi			UHF	GNSS
Operating Frequency (MHz)	2400 - 2500 MHz	4900 - 6000 MHz	6000 - 7125 MHz	350 - 470 MHz	1559 - 1606 MHz
VSWR – Max	<2.0:1			<2.5:1	<2.0:1
Gain – Max (dBi)	5	8		4	36 (Active)
Efficiency %	> 50			> 50	-

ELECTRICAL SPECIFICATION - MAGNETIC MOUNT

Port	Wi-Fi			UHF	GNSS
Operating Frequency (MHz)	2400 - 2500 MHz	4900 - 6000 MHz	6000 - 7125 MHz	350 - 470 MHz	1559 - 1606 MHz
VSWR - Max	<2.0:1			<2.5:1	<2.0:1
Gain - Max (dBi)	6	9		4	36 (Active)
Efficiency, %	> 50			> 50	-

COMMON SPECIFICATIONS

Power Input - Max (W)	10	30	-
Port-to-port Isolation (dB)	GNSS-UHF > 50 GNSS-WI-FI > 30		
Impedance (Ohms)	50		
Azimuth Beamwidth	Omnidirectional		
Polarization	Linear Vertical		

ELECTRICAL SPECIFICATION - GNSS*

Frequency	1559-1607	
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.)	Magnet Mount 138.2 x 68.3 x 45.6 (5.44 x 2.69 x 1.79) Permanent Mount 139.2 x 69.2 x 48.6 (5.48 x 2.72 x 1.91)
Weight - kg (lbs.)	Varies by model. See table on page 9
Radome	Polycarbonate (PC)
Flammability Rating	UL94-V0
Ingress Protection (Water & Dust)	IP67, IP69K
Humidity	MIL-STD-810G, 507.5, Procedure II, Aggravated Humidity
Vibration	MIL-STD-810G, Method 514.6, Category 4, Highway Truck Vibration
Mechanical Shock	IEC 60068-2-27, Secured Cross Country Vehicles
Drop Test	Drop freely from a height of 1 meter to hard surface
Cable Pull Test	20lb Pull on connector/cable for a duration of 30 seconds
Magnet Pull Test	Min. 40lbs for vertical pull / Min. 40lbs for side pull
Mounting	Magnet / Permanent Stud

ENVIRONMENTAL SPECIFICATION

Operating Temperature - °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature - °C (°F)	-40 to +85 (-40 to +185)
Thermal Shock	IEC 68-2-14; -25°C to +70°C
Salt Fog/Mist	MIL-STD-810G, Method 509.5
Wind Operational / Survival - mph (kph)	100 (160) / 136 (220)
Material Substance Compliance	RED, ROHS, UKCA & CE Compliant

PERMANENT MOUNT CONFIGURATIONS

PART NUMBER	CABLE LENGTH	CONNECTOR
L000573-02	Wi-Fi - LMR195-type - 5m / 16ft UHF - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	Wi-Fi - SMA Male UHF/TETRA - BNC Male GNSS - SMA Male
L000573-03	UHF/TETRA - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	UHF/TETRA - BNC Male GNSS - SMA Male
L000573-04	UHF/TETRA - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	UHF/TETRA - TNC Male GNSS - SMA Male
L000573-05	Wi-Fi - LMR195-type - 5m / 16ft UHF - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	Wi-Fi - SMA Male UHF/TETRA - BNC Male GNSS - SMC Male
L000573-06	UHF/TETRA - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	UHF/TETRA - BNC Male GNSS - SMC Male

MAGNETIC MOUNT CONFIGURATIONS

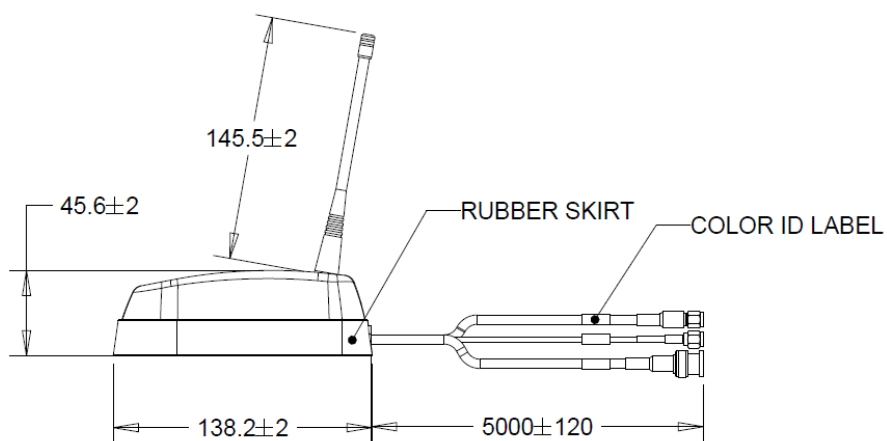
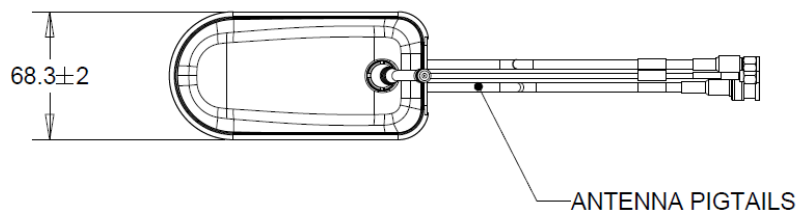
PART NUMBER	CABLE LENGTH	CONNECTOR
L000574-02	Wi-Fi - LMR195-type - 5m / 16ft UHF/TETRA - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	Wi-Fi - SMA Male UHF/TETRA - BNC Male GNSS - SMA Male
L000574-05	Wi-Fi - LMR195-type - 5m / 16ft UHF - LMR195-type - 5m / 16ft GNSS - RG174 - 5m / 16ft	Wi-Fi - SMA Male UHF/TETRA - BNC Male GNSS - SMC Male

POPULAR TETRA RADIO/GATEWAY CONFIGURATIONS

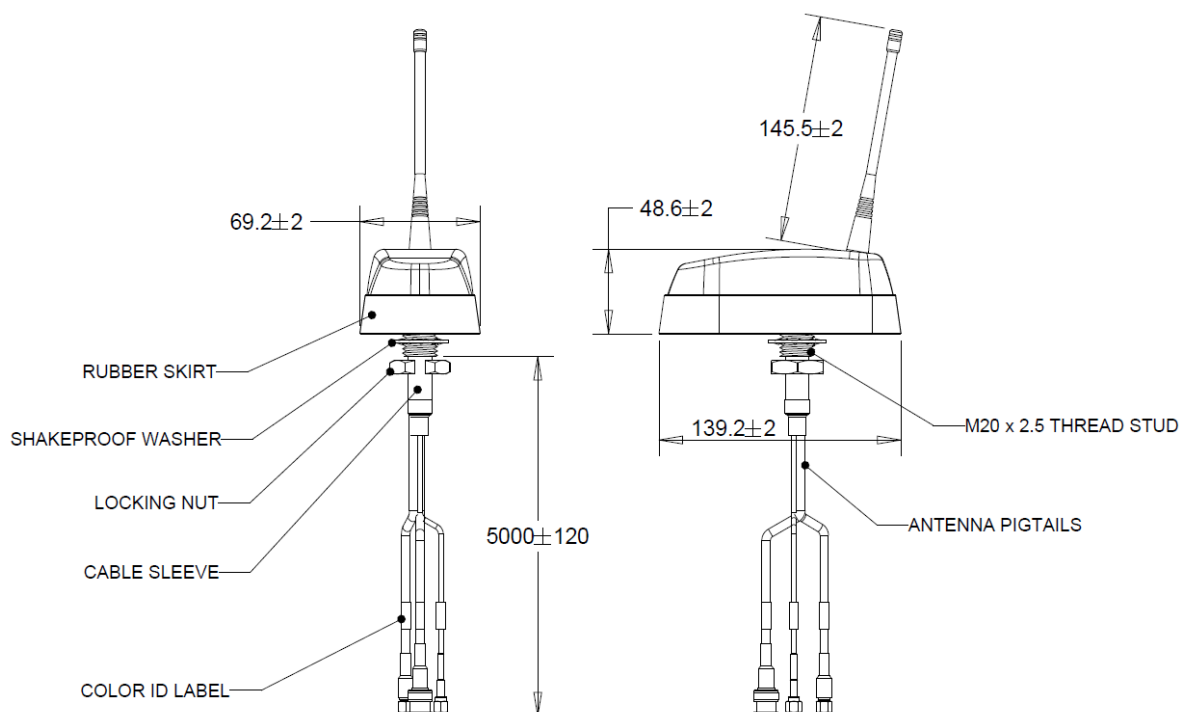
Radio Part Number	TE Permanent Mount P/N	TE Magnetic Mount P/N
Airbus TMR880i	L000573-04	Contact TE For Details
Hytera MT680	L000573-03	Contact TE For Details
Motorola MTM5000	L000573-03	Contact TE For Details
Motorola MXM600	L000573-02	L000574-02
Sepura SCG22	L000573-05	L000574-05
Sepura SRG3900	L000573-06	Contact TE For Details

MECHANICAL DRAWINGS

MAGNETIC MOUNT

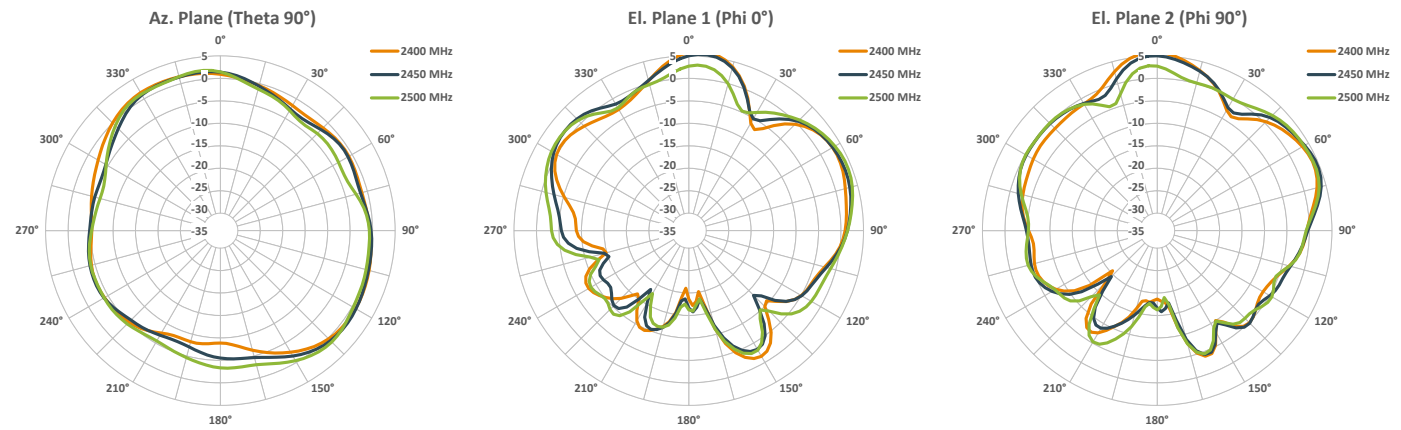


PERMANENT MOUNT

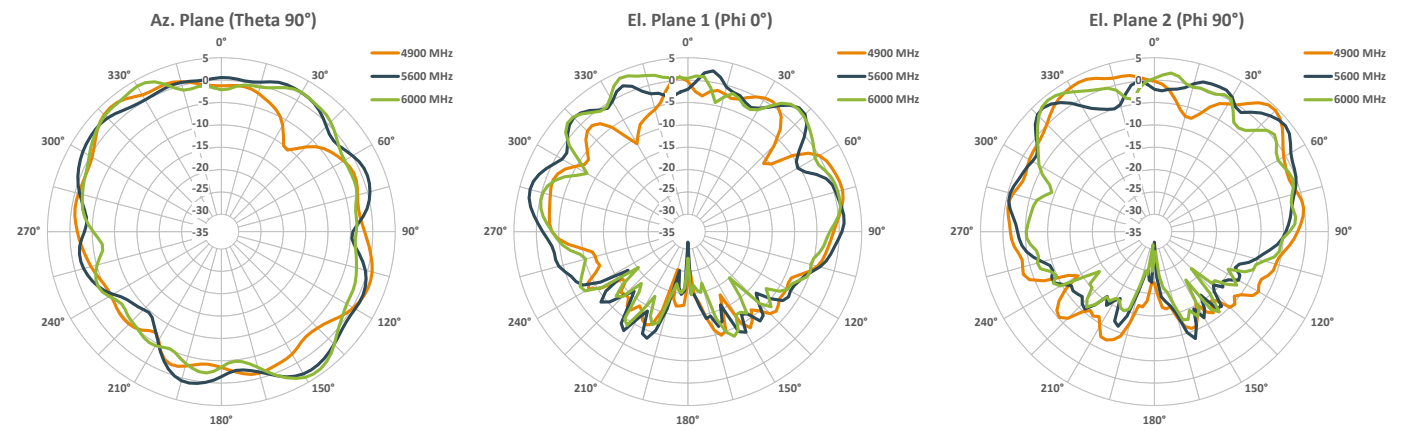


RADIATION PATTERNS - MAGNETIC MOUNT - WI-FI

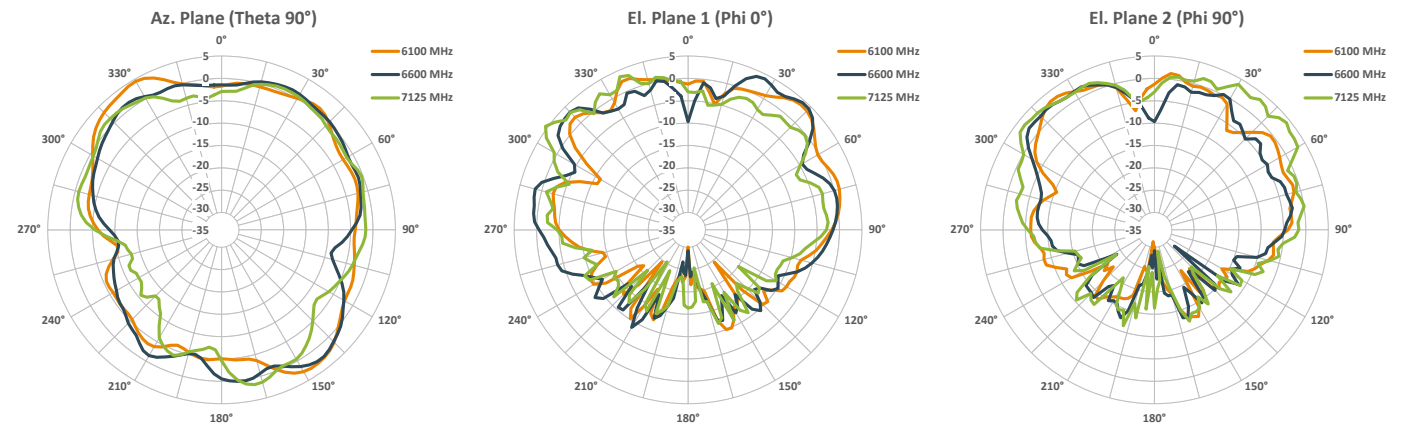
2400 - 2500 MHz



4900 - 6000 MHz

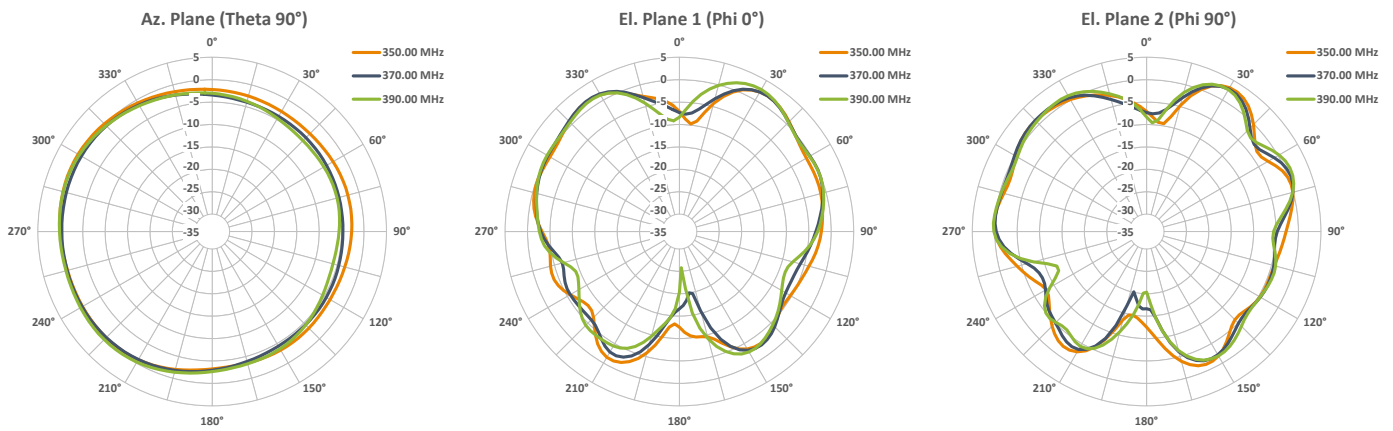


6000 - 7125 MHz

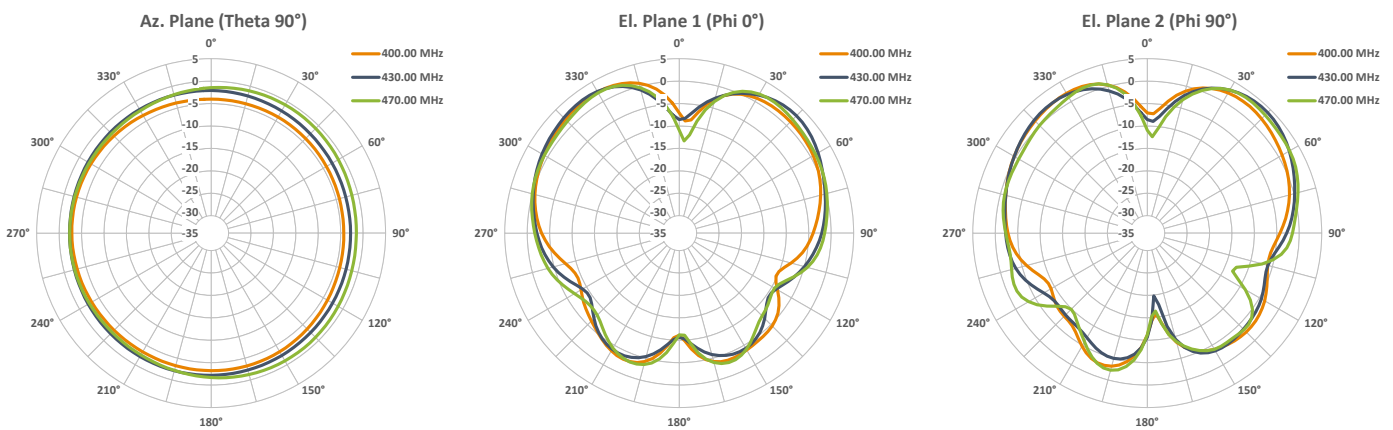


RADIATION PATTERNS - MAGNETIC MOUNT - UHF

350 - 390 MHz

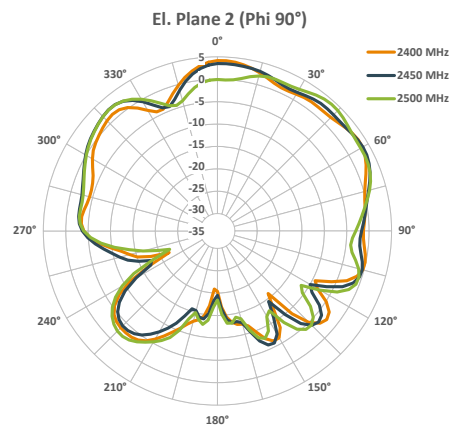
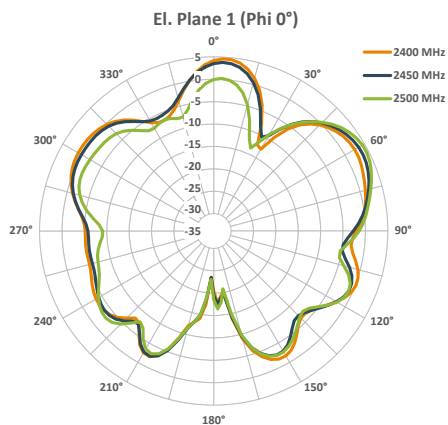
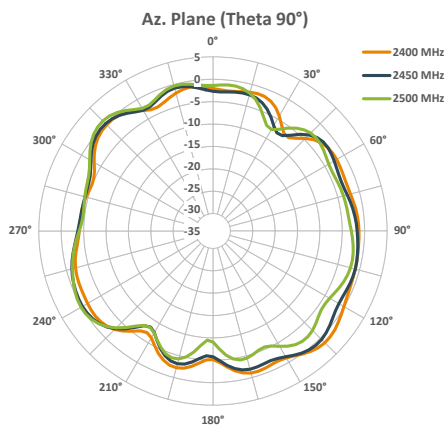


400 - 470 MHz

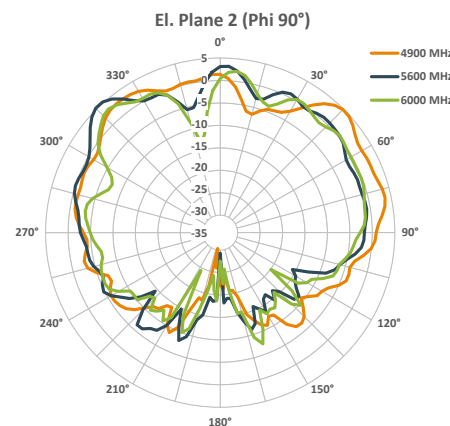
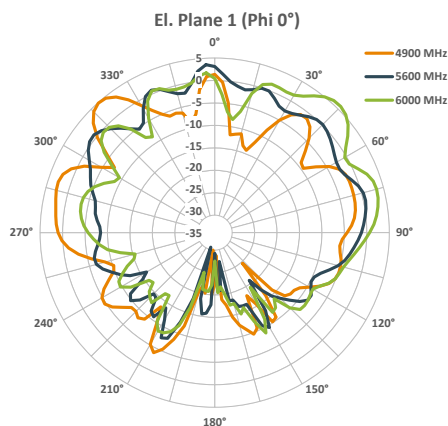
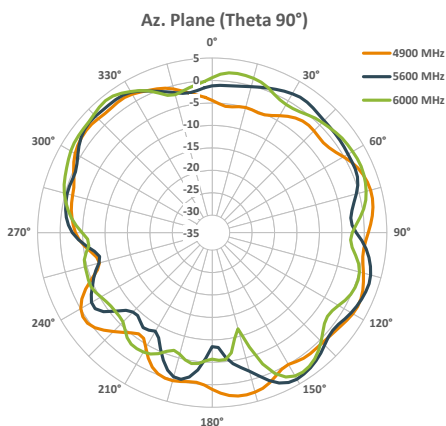


RADIATION PATTERNS - PERMANENT MOUNT - WI-FI

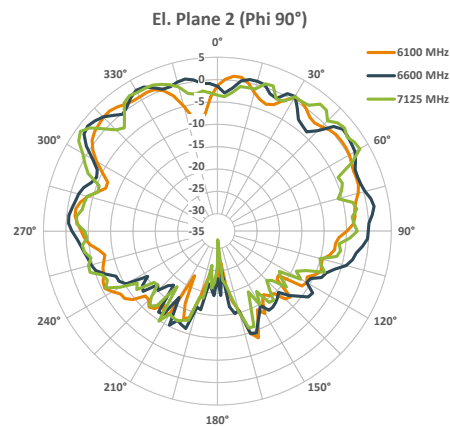
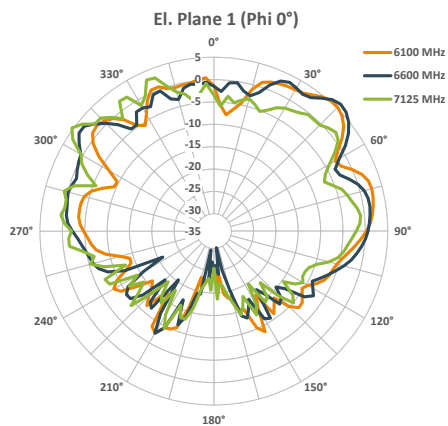
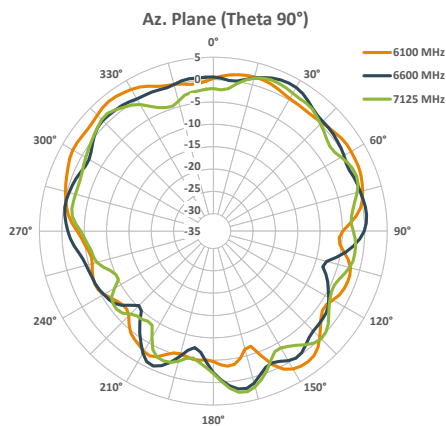
2400 - 2500 MHz



4900 - 6000 MHz

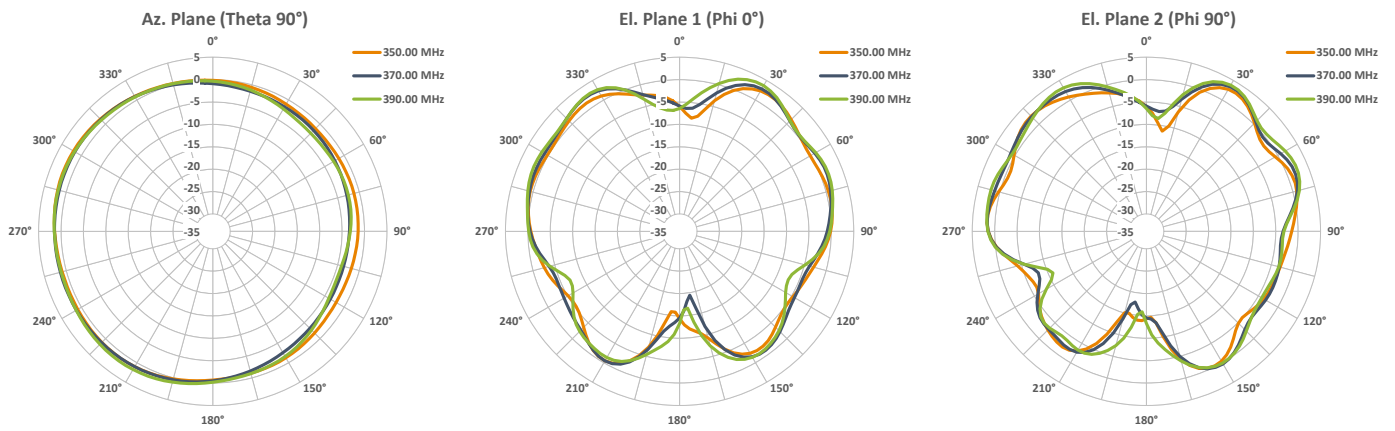


6000 - 7125 MHz

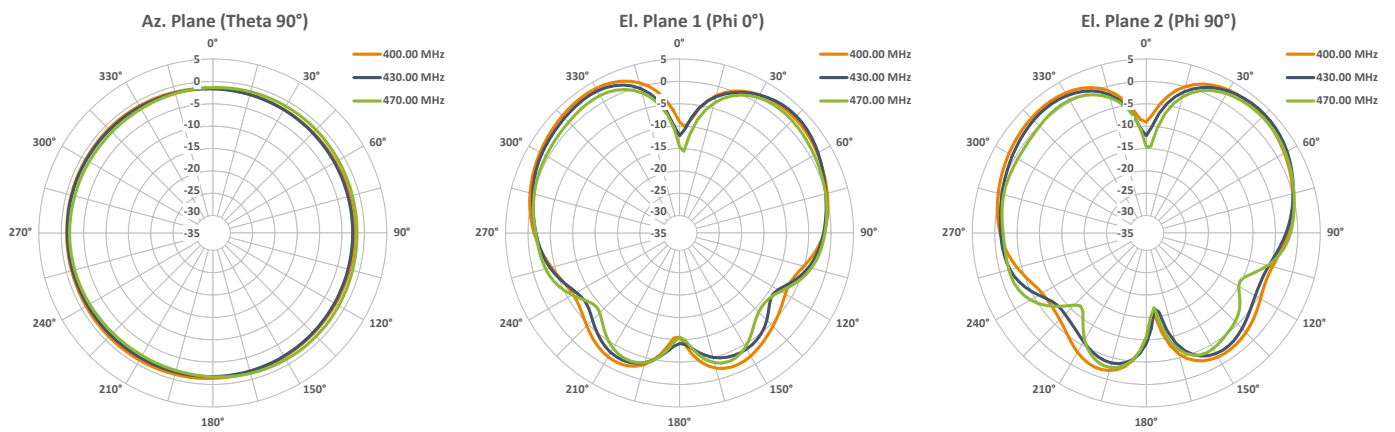


RADIATION PATTERNS - PERMANENT MOUNT - UHF

350 - 390 MHz

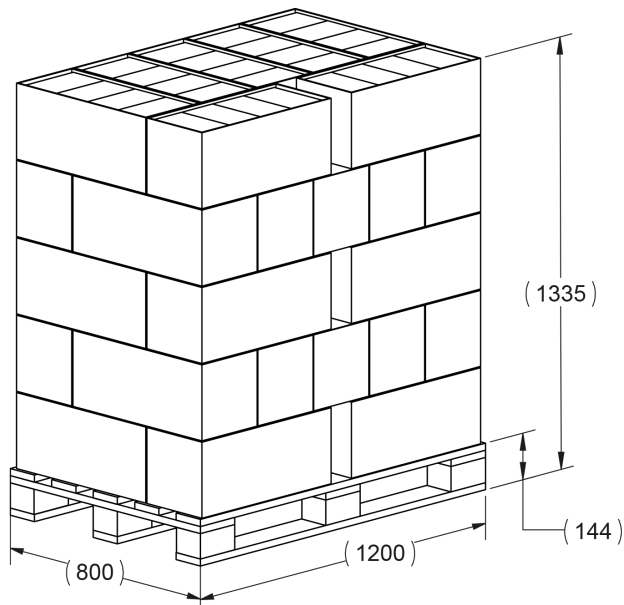


400 - 470 MHz

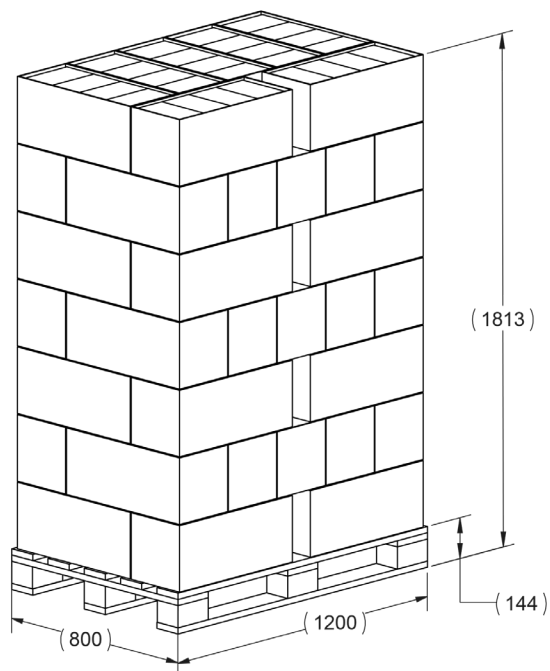


PACKAGING

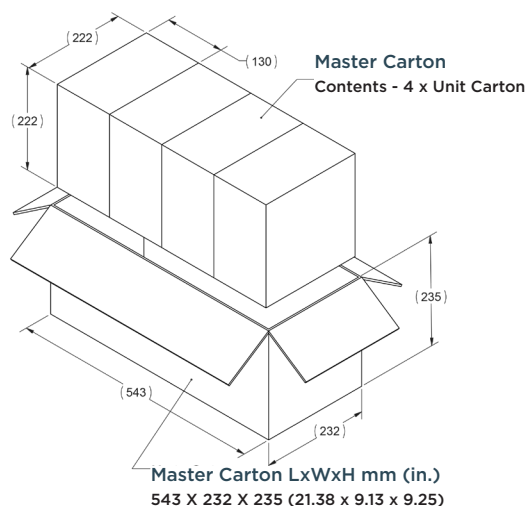
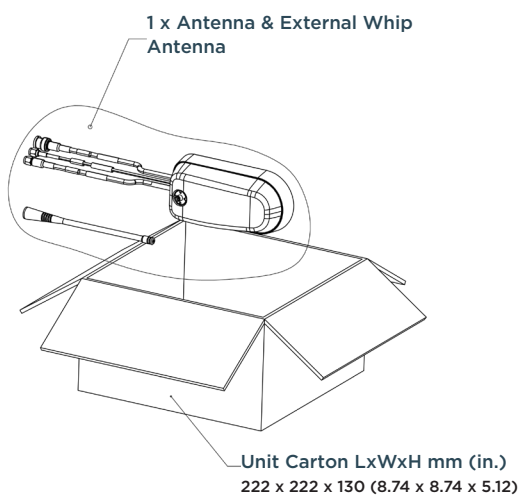
Air Pallet



Ocean Pallet



Unit & Master Carton



PACKAGED DIMENSIONS	Unit Carton	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	1	4	140	196
Height mm (in)	130 (5.12)	235 (9.25)	1335 (52.56)	1813 (71.38)
Length mm (in)	222 (8.74)	543 (21.38)	1200 (47.24)	1200 (47.24)
Width mm (in)	222 (8.74)	232 (9.13)	800 (31.50)	800 (31.50)
Magnetic Mount 2-Port Models Est. Shipping Weight kg (lbs.)	0.90 (1.98)	4.2 (9.26)	164 (361.56)	223 (491.63)
Magnetic Mount 3-Port Models Est. Shipping Weight kg (lbs.)	1.05 (2.32)	4.8 (10.58)	185 (407.86)	253 (557.77)
Permanent Mount 2-Port Models Est. Shipping Weight kg (lbs.)	0.85 (1.87)	4.0 (8.82)	157 (346.13)	213 (469.59)
Permanent Mount 3-Port Models Est. Shipping Weight kg (lbs.)	1.0 (2.20)	4.6 (10.14)	178 (392.42)	243 (535.72)

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