



## 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.)	<b>Magnet Mount</b> 138.2 x 68.3 x 45.6 (5.44 x 2.69 x 1.79) <b>Permanent Mount</b> 139.2 x 69.2 x 48.6 (5.48 x 2.72 x 1.91)
Weight - kg (lbs.)	<b>Varies by model. See table on page 9</b>
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	<b>Wi-Fi</b> - LMR195-type - 5m / 16ft <b>UHF</b> - LMR195-type - 5m / 16ft <b>GNSS</b> - RG174 - 5m / 16ft	<b>Wi-Fi</b> - SMA Male <b>UHF/TETRA</b> - BNC Male <b>GNSS</b> - SMA Male
L000573-03	<b>UHF/TETRA</b> - LMR195-type - 5m / 16ft <b>GNSS</b> - RG174 - 5m / 16ft	<b>UHF/TETRA</b> - BNC Male <b>GNSS</b> - SMA Male
L000573-04	<b>UHF/TETRA</b> - LMR195-type - 5m / 16ft <b>GNSS</b> - RG174 - 5m / 16ft	<b>UHF/TETRA</b> - TNC Male <b>GNSS</b> - SMA Male
L000573-05	<b>Wi-Fi</b> - LMR195-type - 5m / 16ft <b>UHF</b> - LMR195-type - 5m / 16ft <b>GNSS</b> - RG174 - 5m / 16ft	<b>Wi-Fi</b> - SMA Male <b>UHF/TETRA</b> - BNC Male <b>GNSS</b> - SMC Male
L000573-06	<b>UHF/TETRA</b> - LMR195-type - 5m / 16ft <b>GNSS</b> - RG174 - 5m / 16ft	<b>UHF/TETRA</b> - BNC Male <b>GNSS</b> - SMC Male

## MAGNETIC MOUNT CONFIGURATIONS

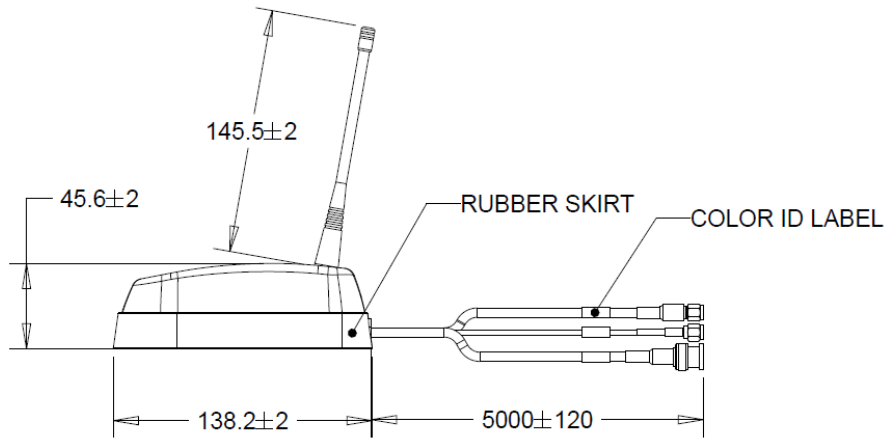
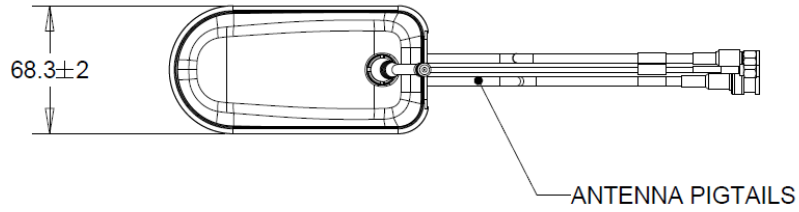
PART NUMBER	CABLE LENGTH	CONNECTOR
L000574-02	<b>Wi-Fi</b> - LMR195-type - 5m / 16ft <b>UHF/TETRA</b> - LMR195-type - 5m / 16ft <b>GNSS</b> - RG174 - 5m / 16ft	<b>Wi-Fi</b> - SMA Male <b>UHF/TETRA</b> - BNC Male <b>GNSS</b> - SMA Male
L000574-05	<b>Wi-Fi</b> - LMR195-type - 5m / 16ft <b>UHF</b> - LMR195-type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

## POPULAR TETRA RADIO/GATEWAY CONFIGURATIONS

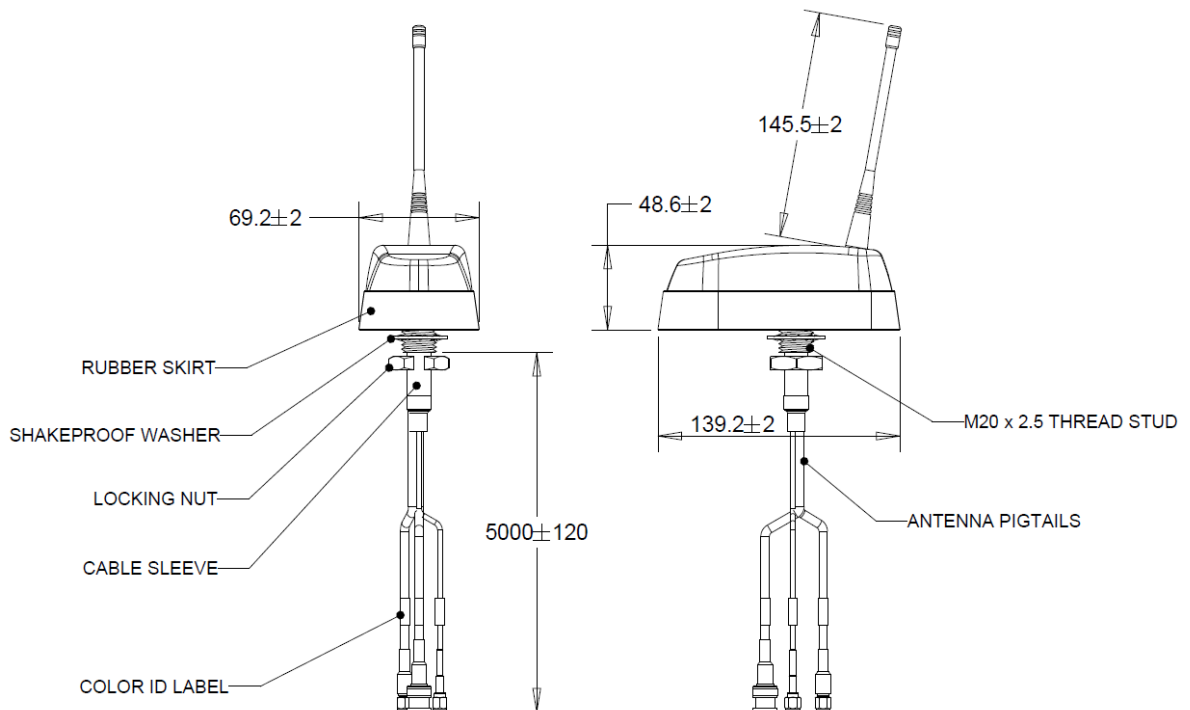
Radio Part Number	TE Permanent Mount P/N	TE Magnetic Mount P/N
<b>Airbus TMR880i</b>	L000573-04	Contact TE For Details
<b>Hytera MT680</b>	L000573-03	Contact TE For Details
<b>Motorola MTM5000</b>	L000573-03	Contact TE For Details
<b>Motorola MXM600</b>	L000573-02	L000574-02
<b>Sepura SCG22</b>	L000573-05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

## MECHANICAL DRAWINGS

### MAGNETIC MOUNT

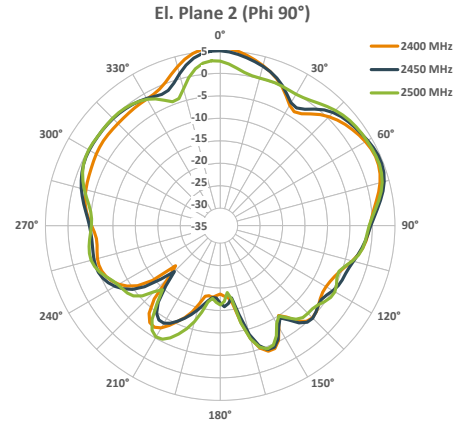
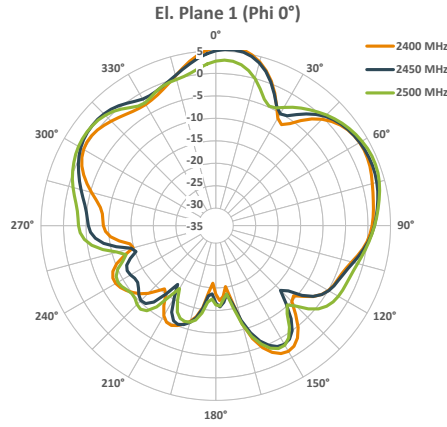
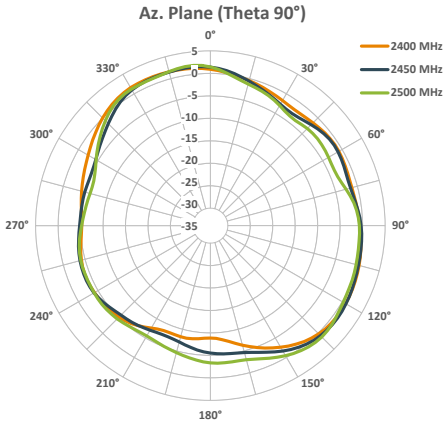


### PERMANENT MOUNT

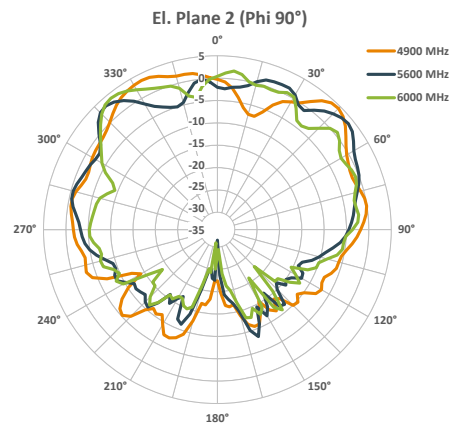
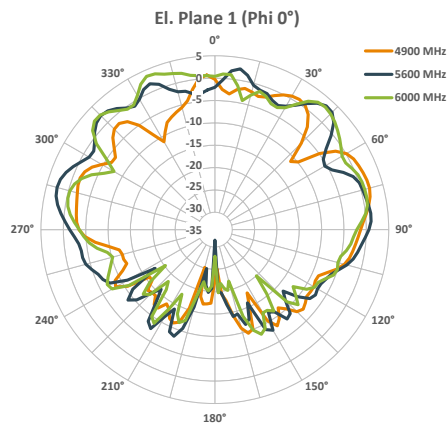
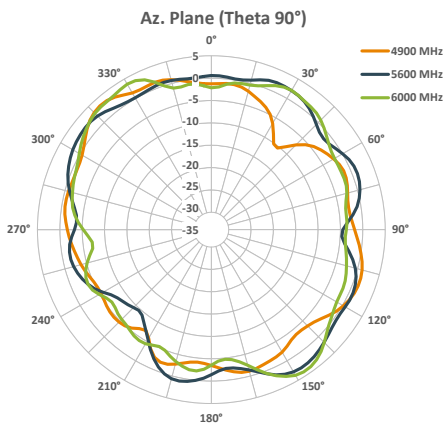


# RADIATION PATTERNS - MAGNETIC MOUNT - WI-FI

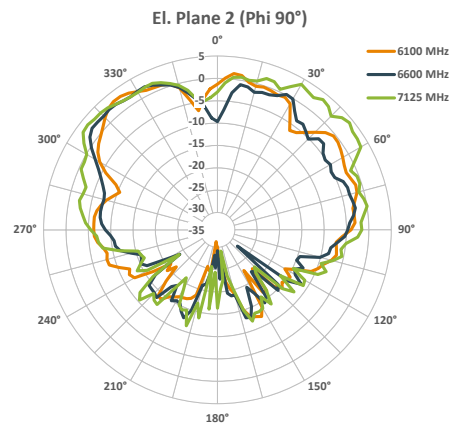
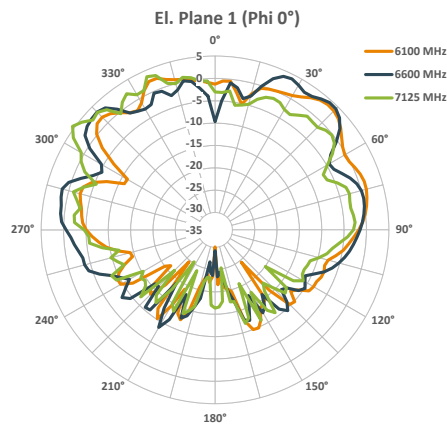
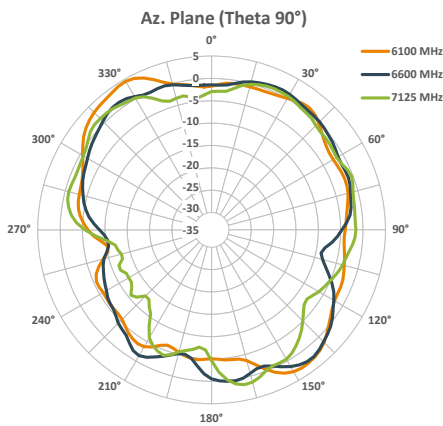
## 2400 - 2500 MHz



## 4900 - 6000 MHz

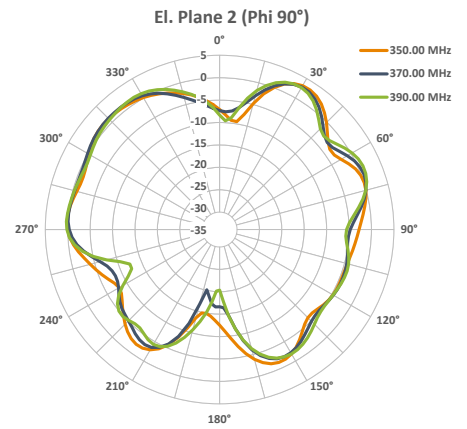
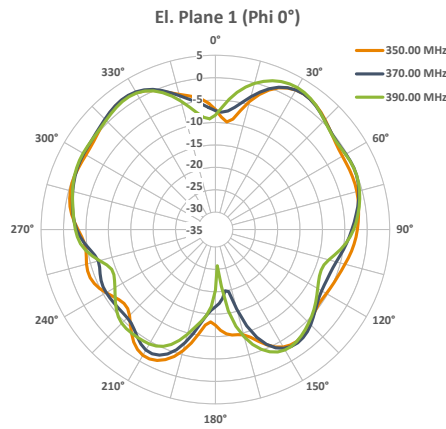
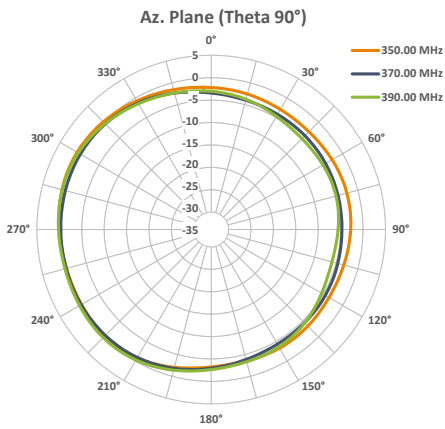


## 6000 - 7125 MHz

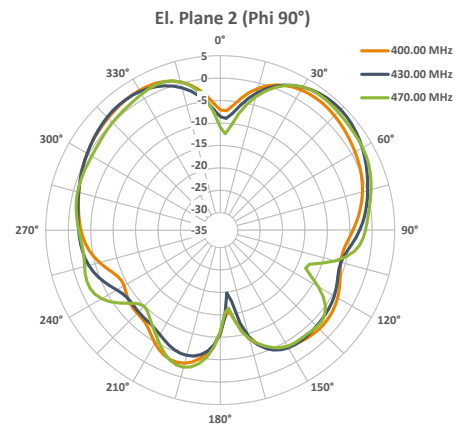
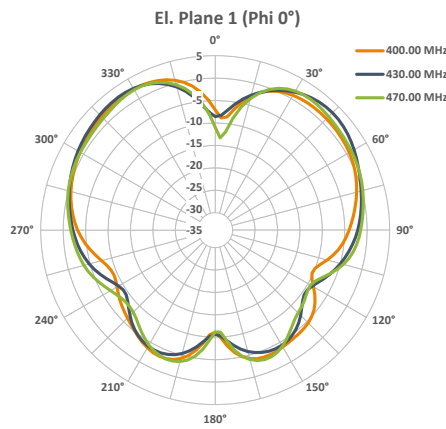
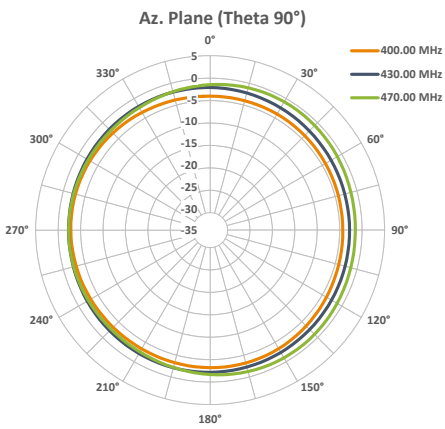


# RADIATION PATTERNS - MAGNETIC MOUNT - UHF

## 350 - 390 MHz

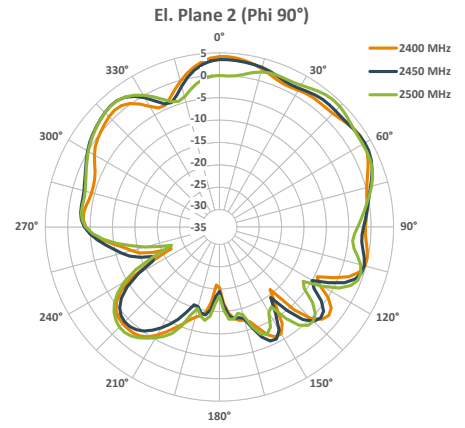
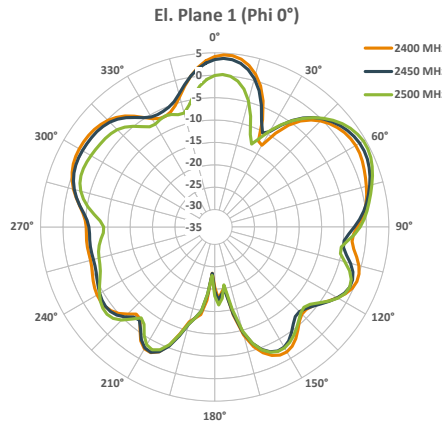
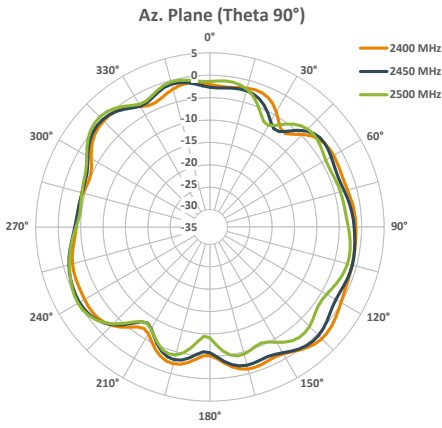


## 400 - 470 MHz

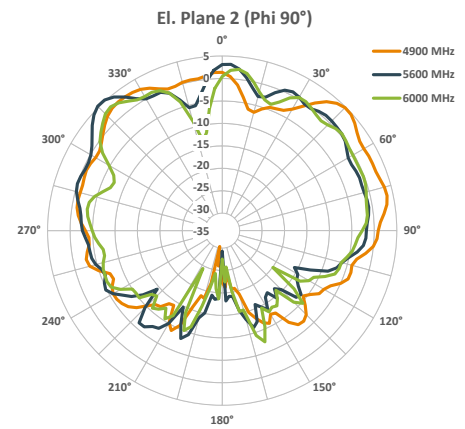
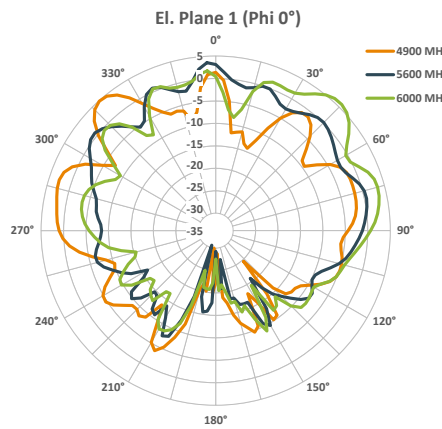
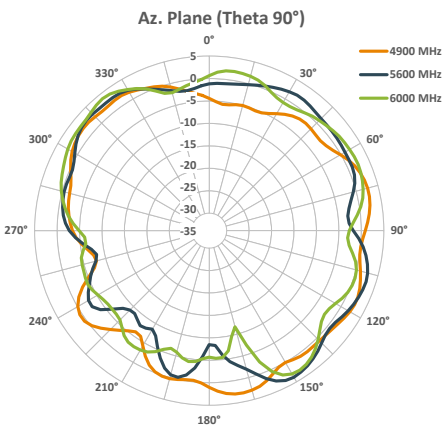


# RADIATION PATTERNS - PERMANENT MOUNT - WI-FI

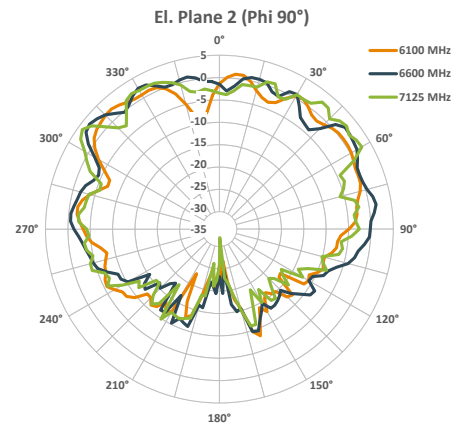
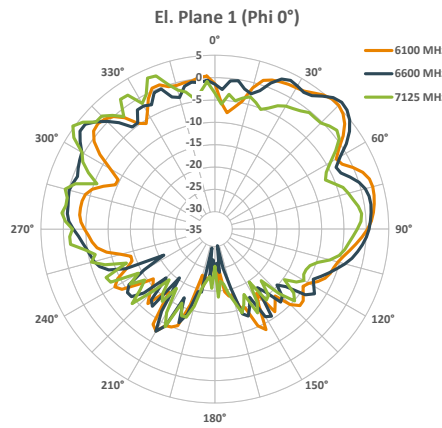
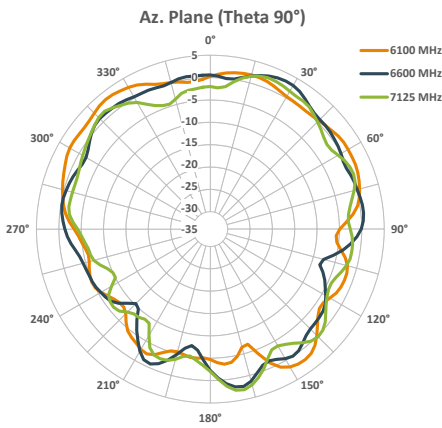
## 2400 - 2500 MHz



## 4900 - 6000 MHz

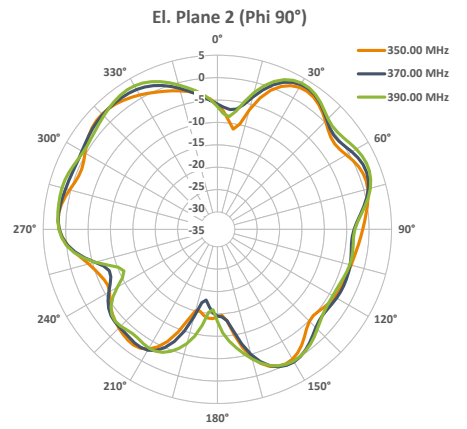
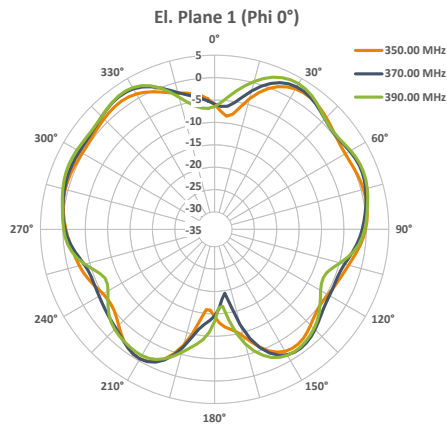
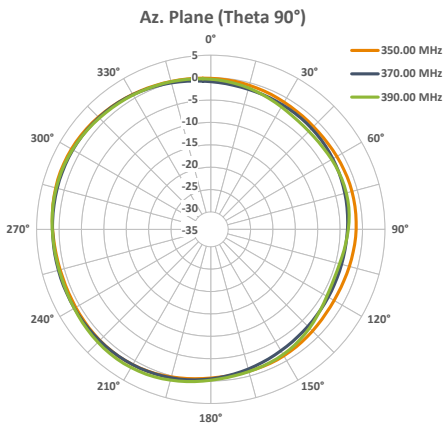


## 6000 - 7125 MHz

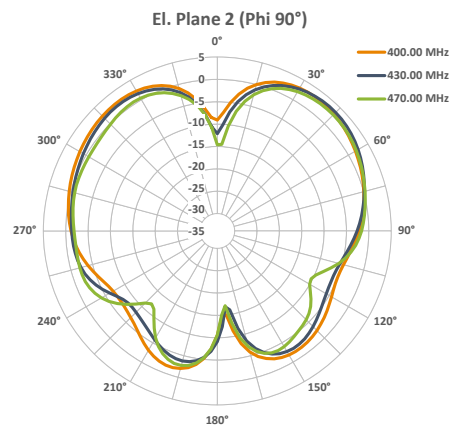
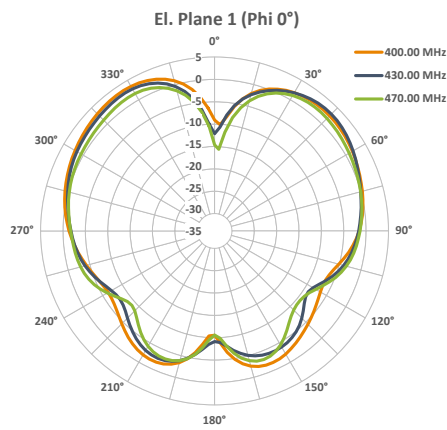
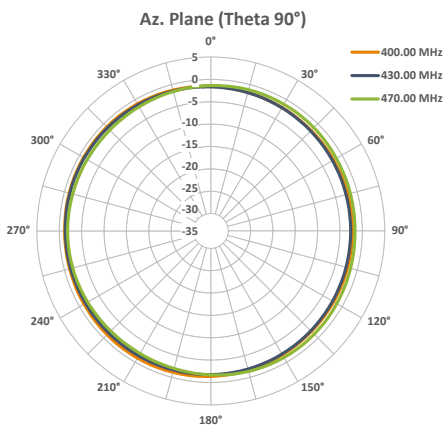


# RADIATION PATTERNS - PERMANENT MOUNT - UHF

## 350 - 390 MHz



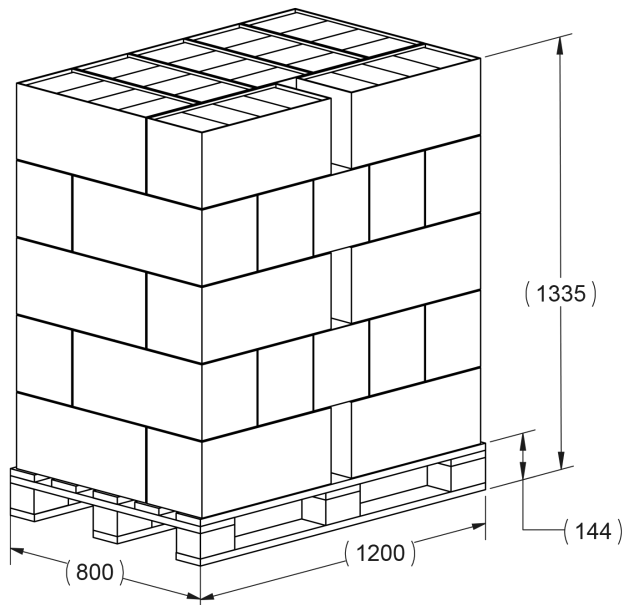
## 400 - 470 MHz



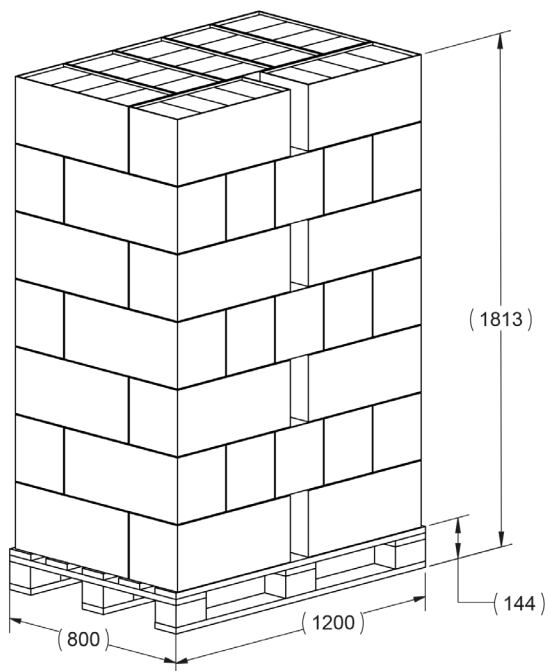


## PACKAGING

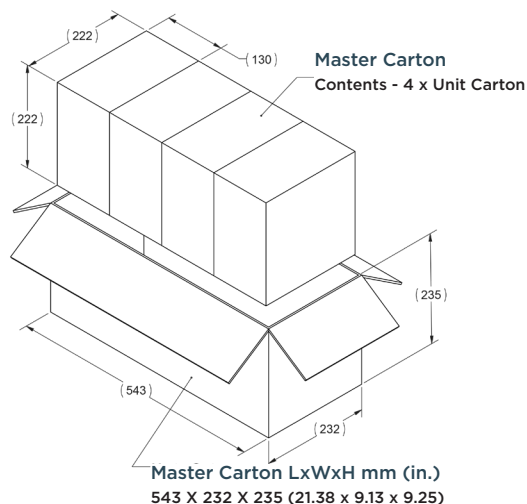
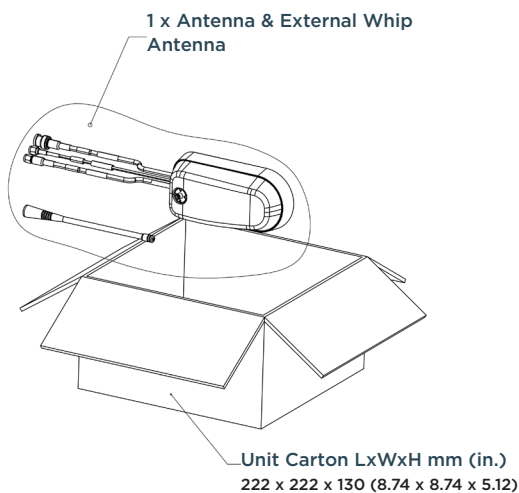
### Air Pallet



### 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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