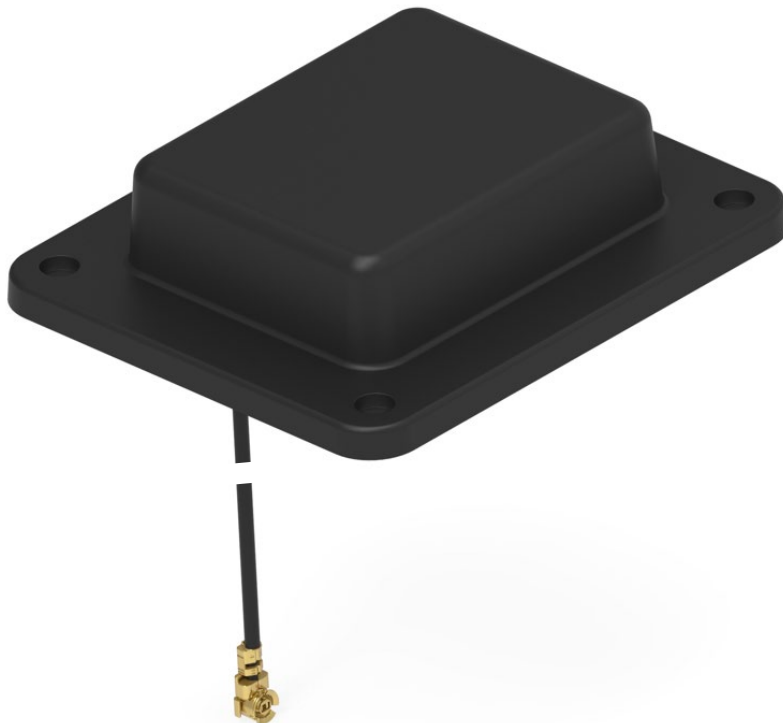




2195966-1

External Triple-Band Wi-Fi Antenna

Supporting On-Metal Installations 2.4, 5 and 6 GHz Bands Including Wi-Fi 6E, 7 & 8

The 2195966-1 antenna offers triple band Wi-Fi connectivity for applications requiring antennas supporting 2.4, 5 and 6 GHz bands. Designed to support devices for applications with enhanced speed and performance, via tri-band connectivity, these antennas will help enable access to the latest Wi-Fi standards and capabilities.

Combined with an IP67 rating these antennas are applicable to a broad range of IoT applications. Suitable for both indoor and outdoor environments.

Features	Applications
• 2.4GHz and Wi-Fi/WLAN 6E, 7 & 8 • Designed to be mounted on a metal chassis • Compact, low-profile – 39.2 x 46.0 x 11.2 mm • Screw-mount for ease of mounting • Different cable length and connector options available	• Single, dual, triple-band Wi-Fi / WLAN • ISM and U-NII 1-3 applications • 2.4 GHz supports commercial protocols • Ticketing, vending and smart utility devices • Internet of Things (IoT) devices • Edge gateways • Indoor and outdoor

ORDERING INFORMATION

PART NUMBER	DESCRIPTION	CABLE	CONNECTOR
2195966-1	Triple band Wi-Fi antenna for outdoor on-metal applications	1.13 coaxial, 300 mm	MHF1

SPECIFICATIONS

ELECTRICAL			
Operating Frequency (MHz)	2400 - 2500	5150 - 5850	5900 - 7125
VSWR	< 2.2 : 1	< 2.2 : 1	< 3.1 : 1
Efficiency (%)	41.0	44.1	25.5
Average Gain (dB)	-4.0	-3.7	-6.0
Peak Gain (dBi)	4.0	3.9	1.4
Max Input Power	2 W		
Impedance	50 Ohms		
Polarization	Linear		

Performance is based on Ø120 mm ground size and center measurement.

MECHANICAL	
Dimensions L x W x H mm (in.)	39.2 x 46.0 x 11.2 (1.54 x 1.81 x 0.44)
Weight	< 11 g (0.024lbs)
Mounting	Screw Mount /Adhesive
Radome Material	PC+ABS
Mating Connector	MHF1 / U.FL
Cable Type	1.13 mm co-axial

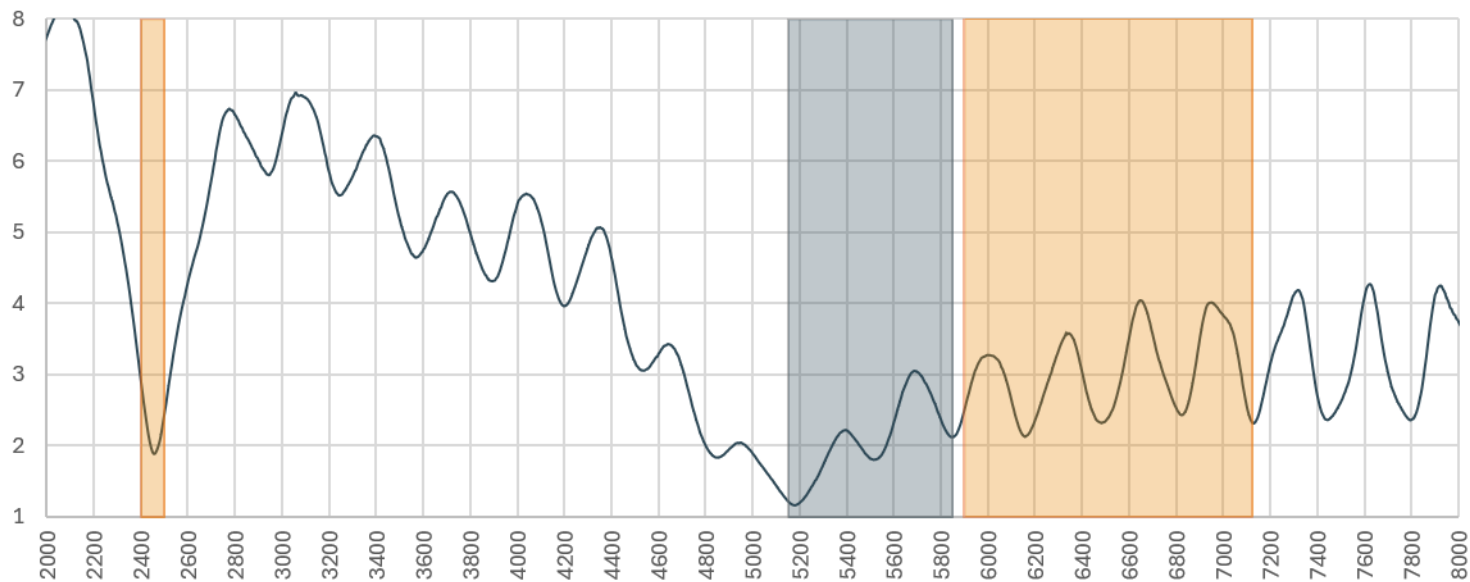
ENVIRONMENTAL	
Operating Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Storage Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Relative Humidity	Non-condensing 90°C 95% RH
Ingress Protection	IP67
Material Substance Compliance	RoHS, Compliant
Hazardous Materials	A certificate of conformance is available from the product page on TE website.

RF CHARACTERISTICS

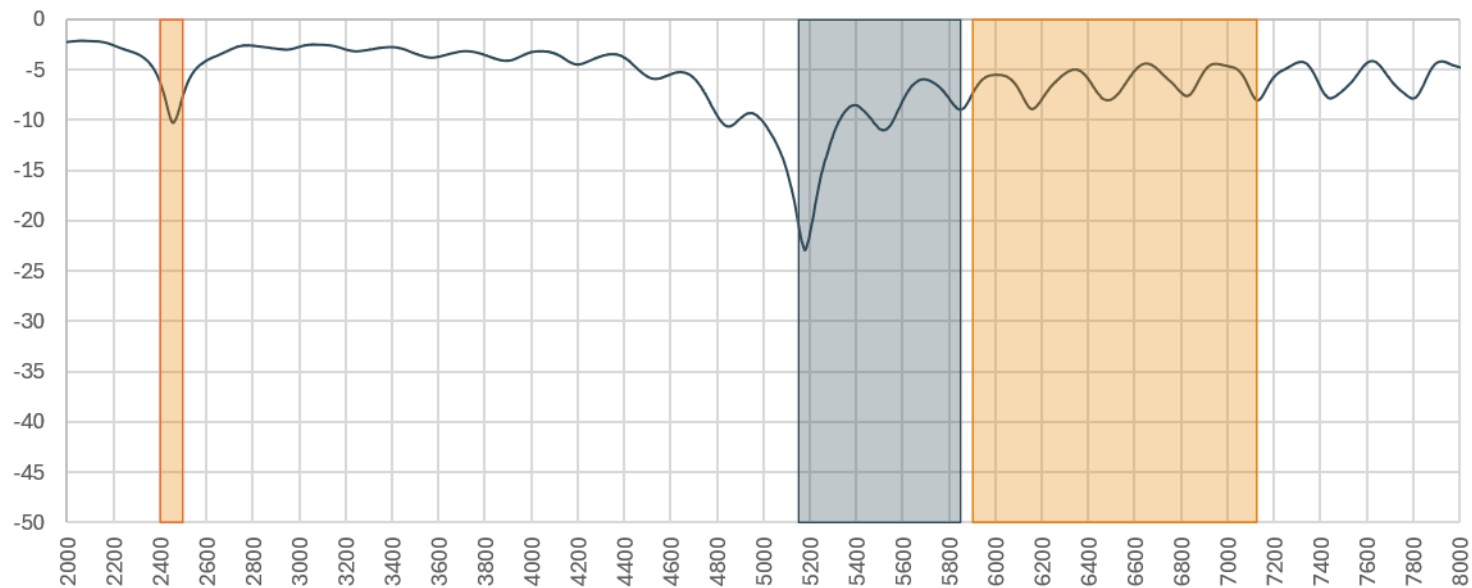
Key

Measured in $\varnothing 120\text{mm}$ Ground Plane

VSWR



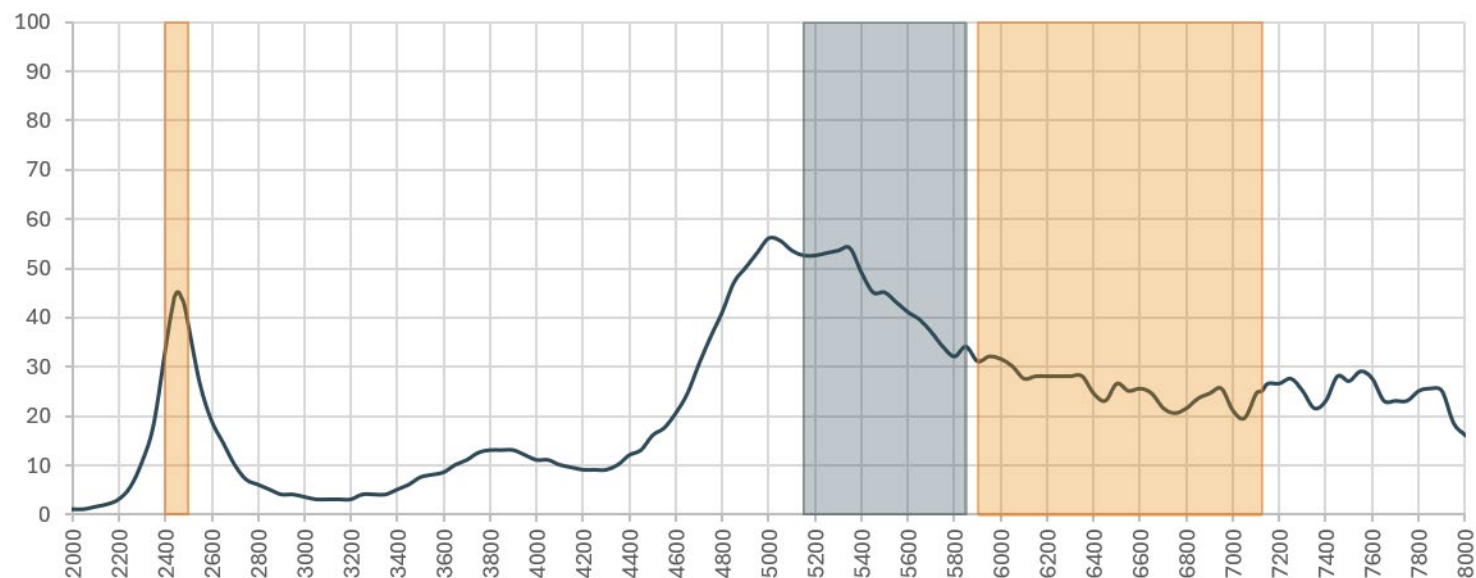
Return Loss (dB)



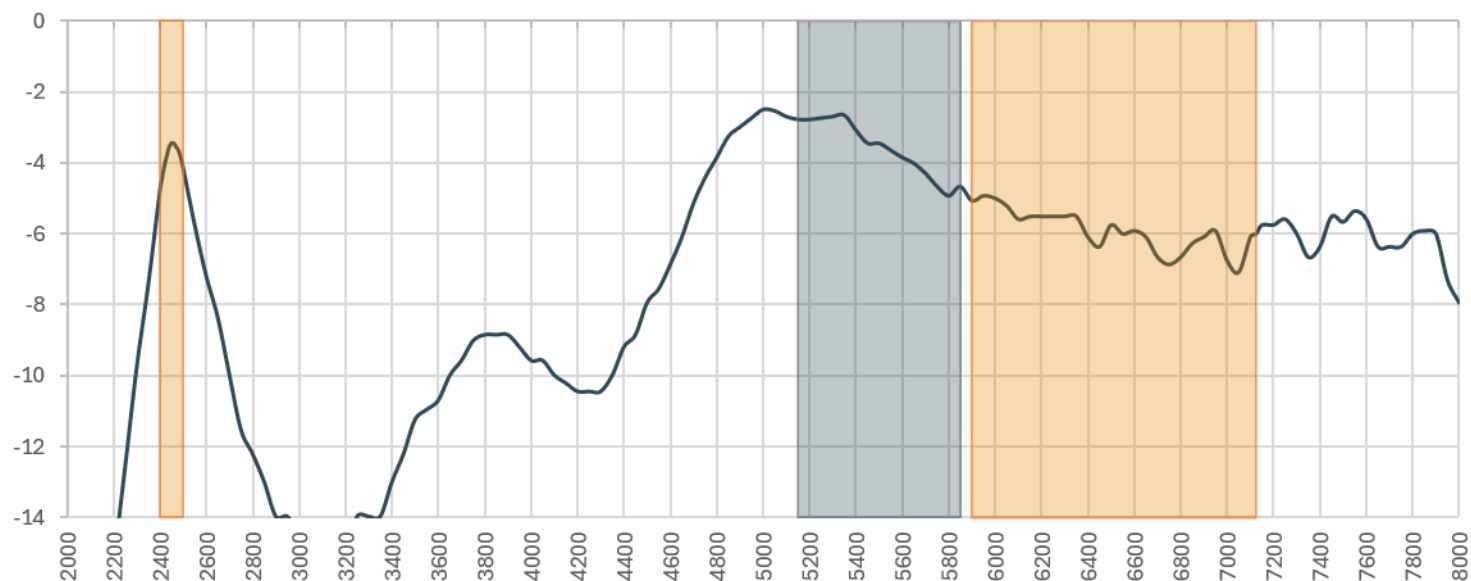
Measured on $\varnothing 120\text{mm}$ ground plane; application data might vary.

RF CHARACTERISTICS

Efficiency (%)



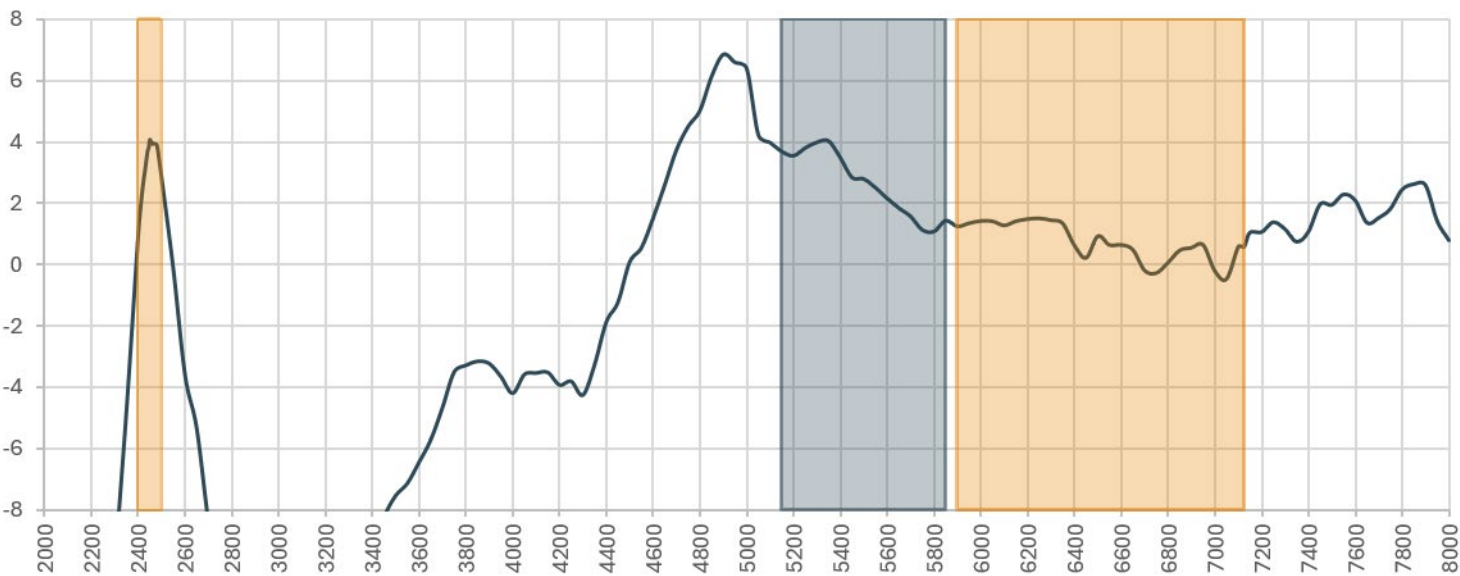
Efficiency (dB)



Measured on $\varnothing 120\text{mm}$ ground plane; application data might vary.

RF CHARACTERISTICS

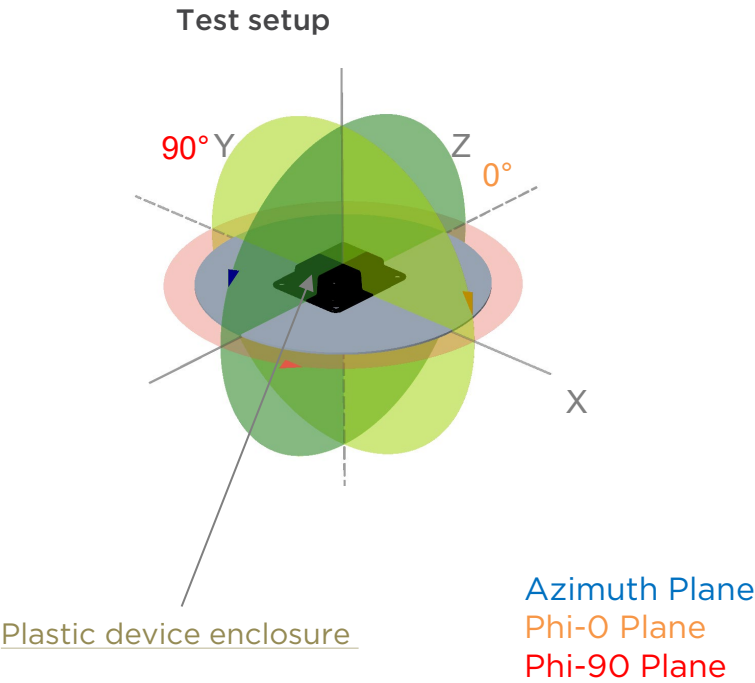
Peak Gain (dBi)



RADIATION PATTERNS

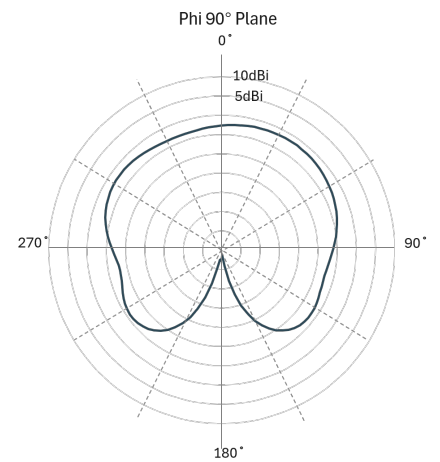
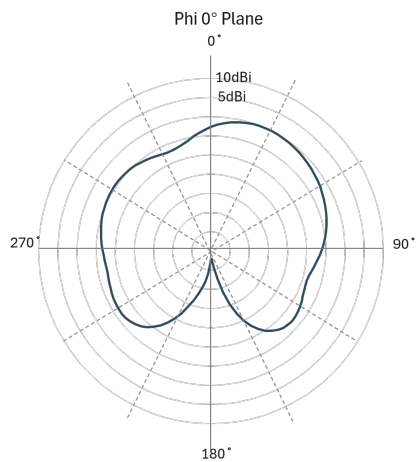
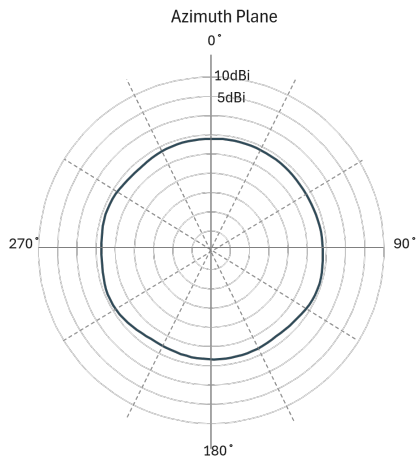
Key

Measured on $\varnothing 120\text{mm}$ Ground Plane

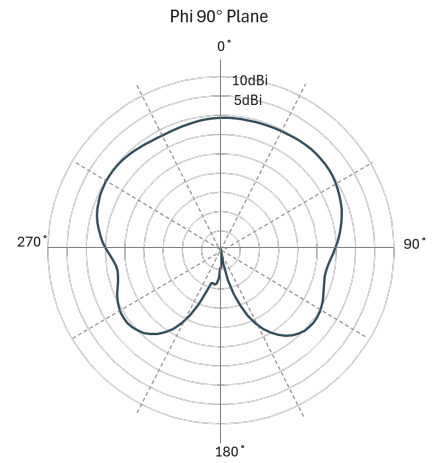
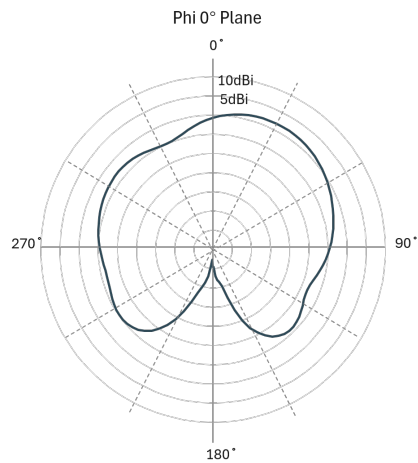
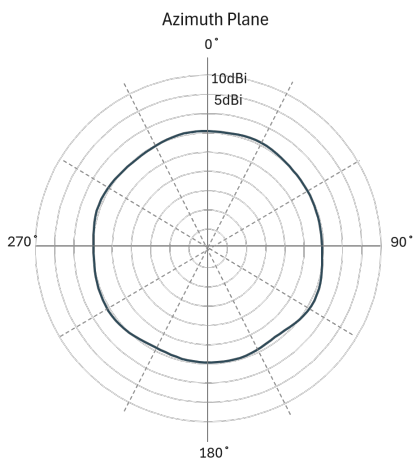


RADIATION PATTERNS

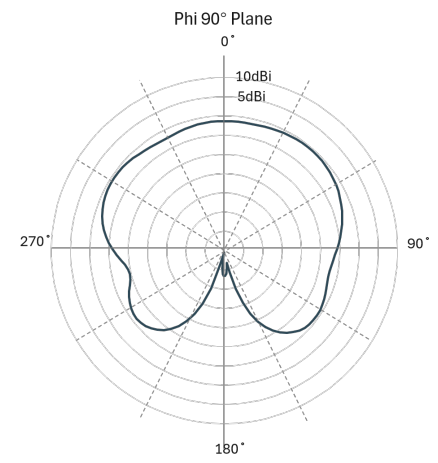
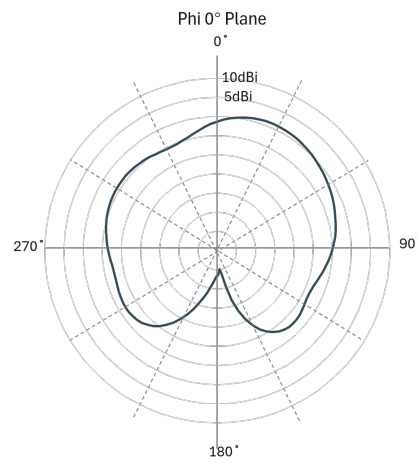
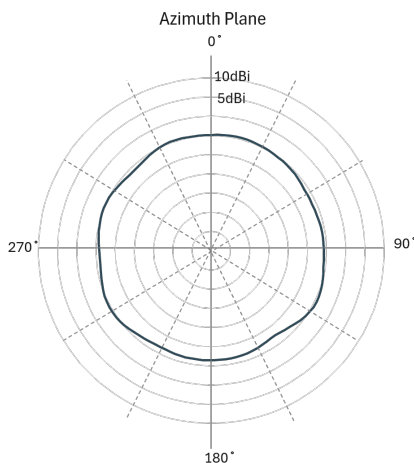
Radiation Patterns at 2400 MHz



Radiation Patterns at 2450 MHz

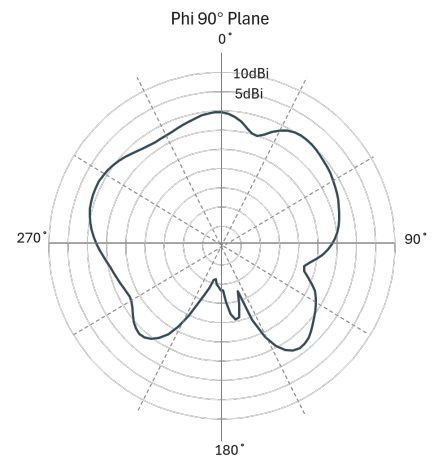
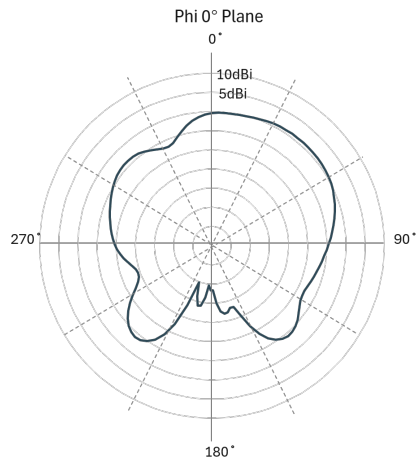
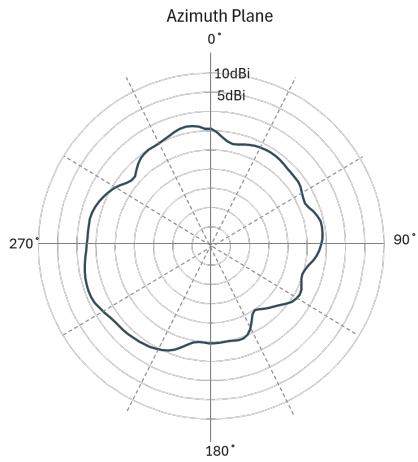


Radiation Patterns at 2500 MHz

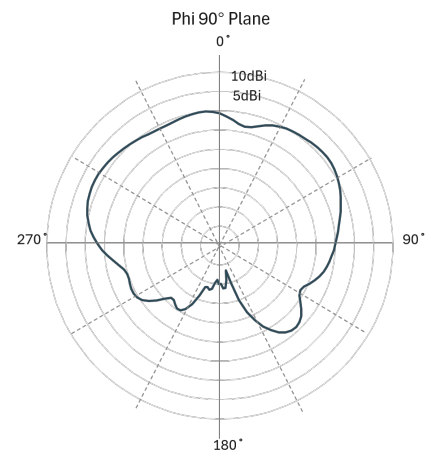
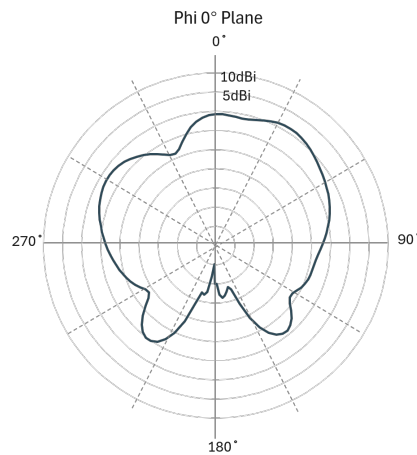
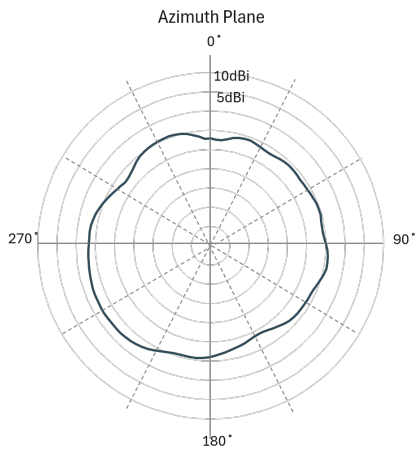


RADIATION PATTERNS

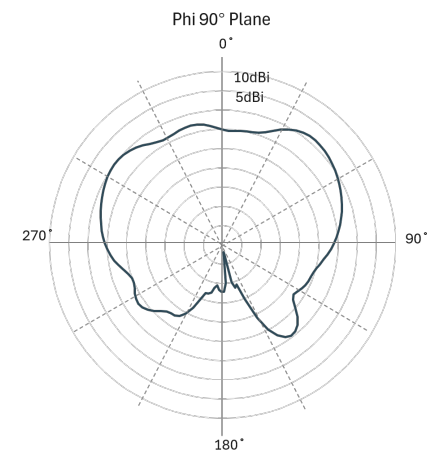
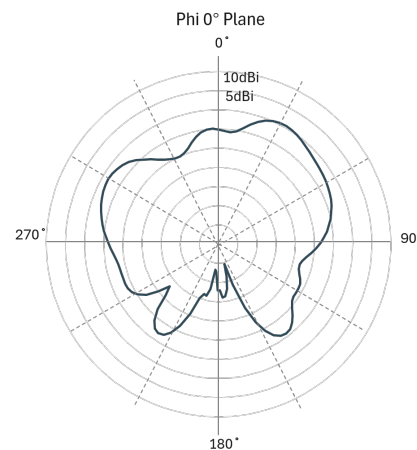
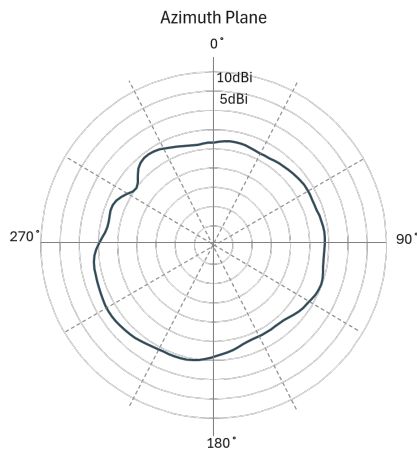
Radiation Patterns at 5150 MHz



Radiation Patterns at 5500 MHz

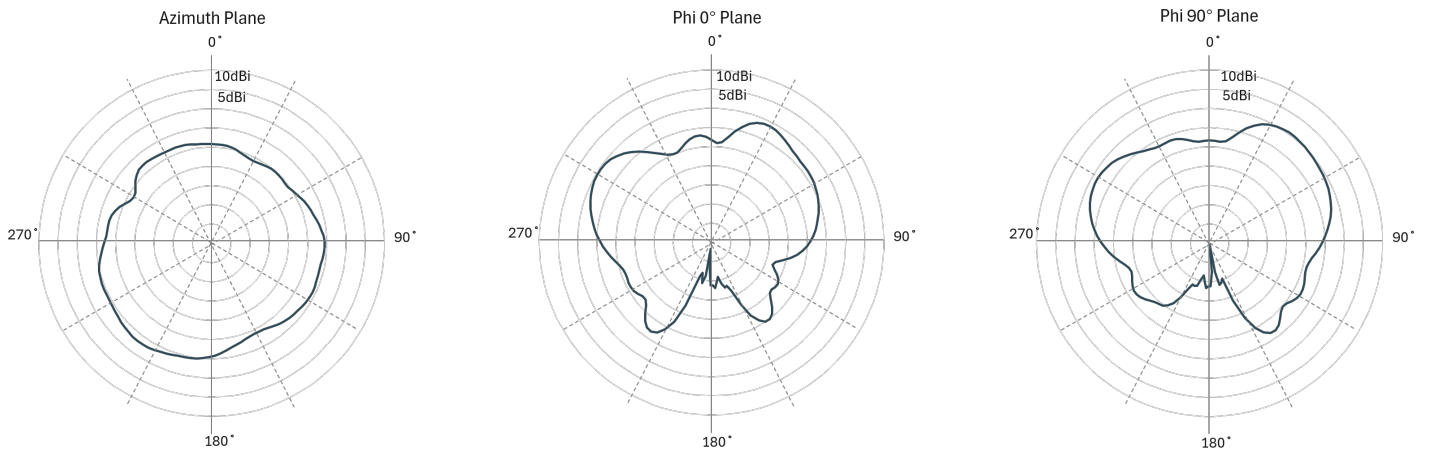


Radiation Patterns at 5850 MHz

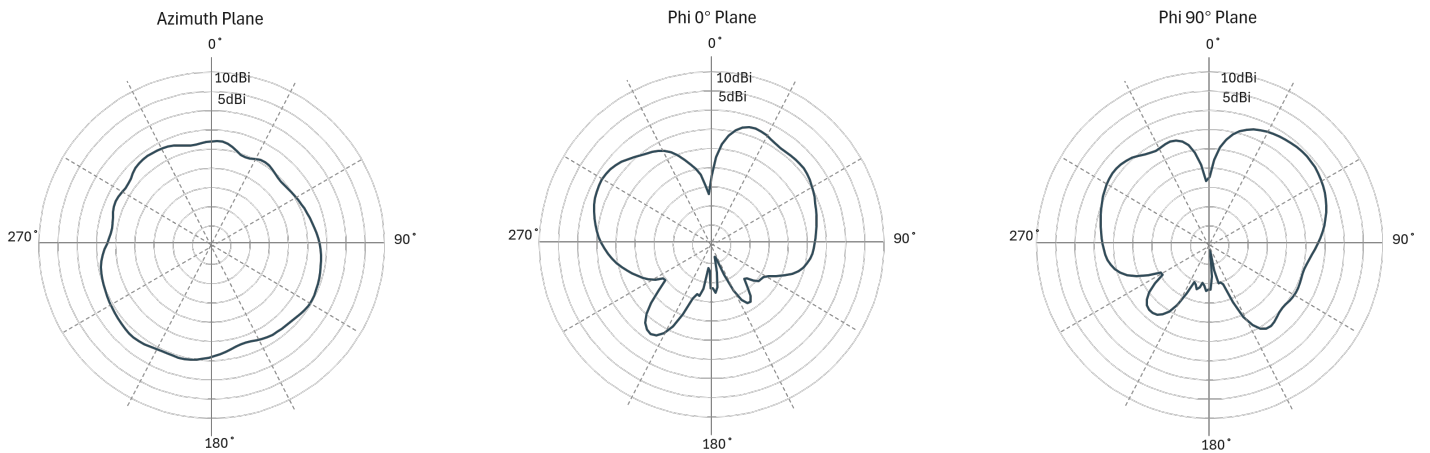


RADIATION PATTERNS

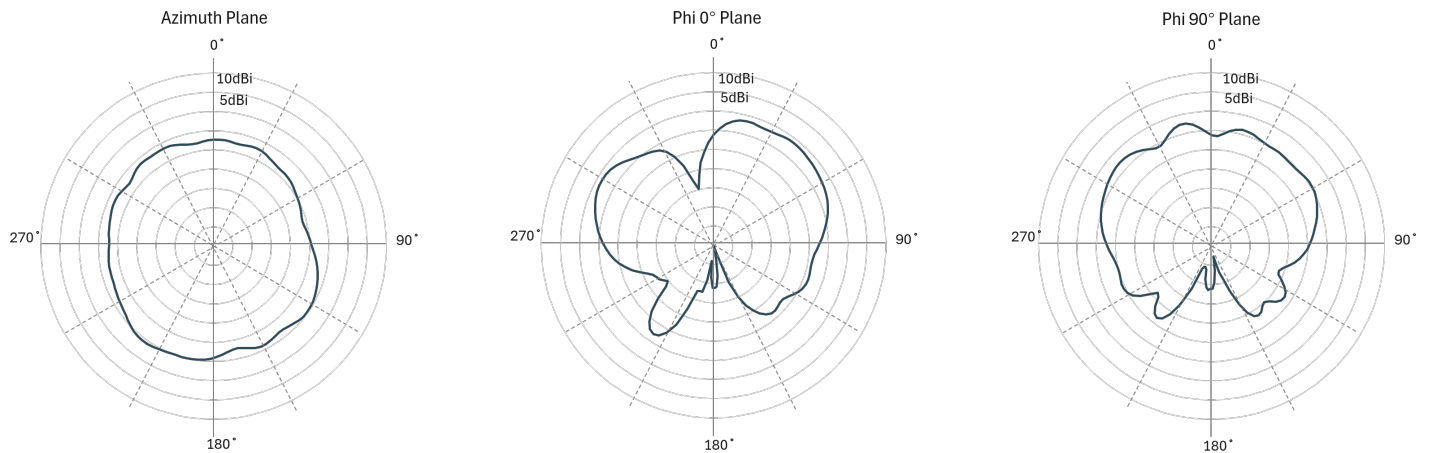
Radiation Patterns at 6100 MHz (WIFI 6E/7/8)



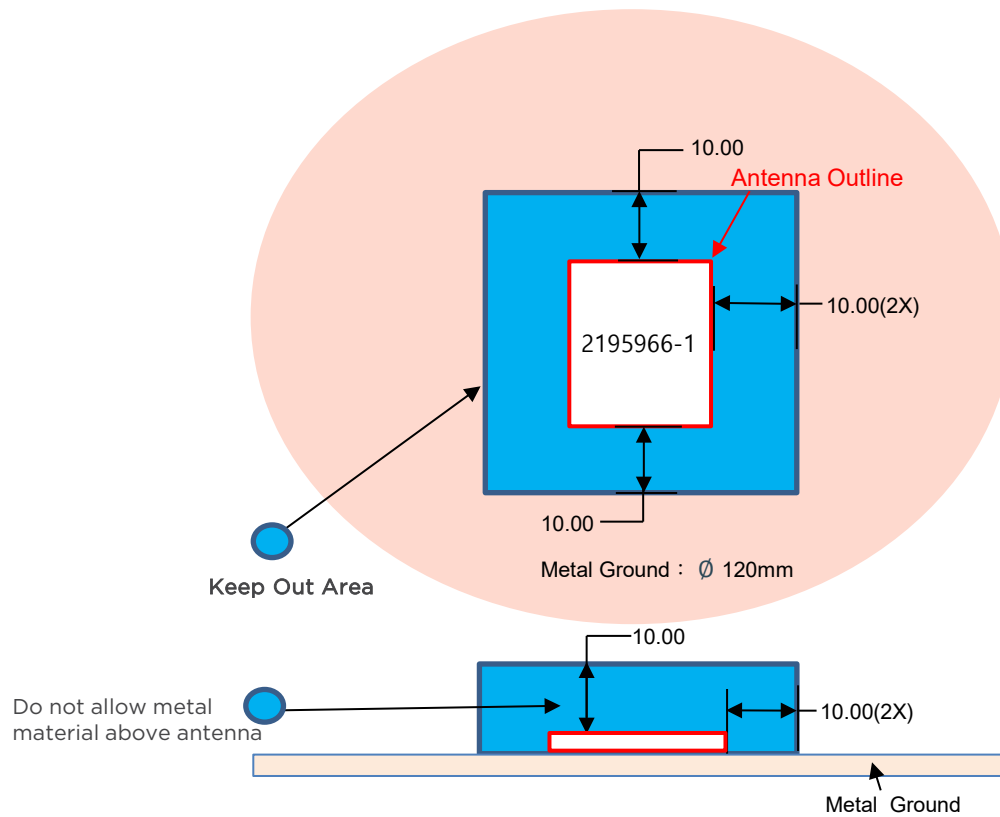
Radiation Patterns at 6500 MHz (WIFI 6E/7/8)



Radiation Patterns at 7125 MHz (WIFI 6E/7/8)



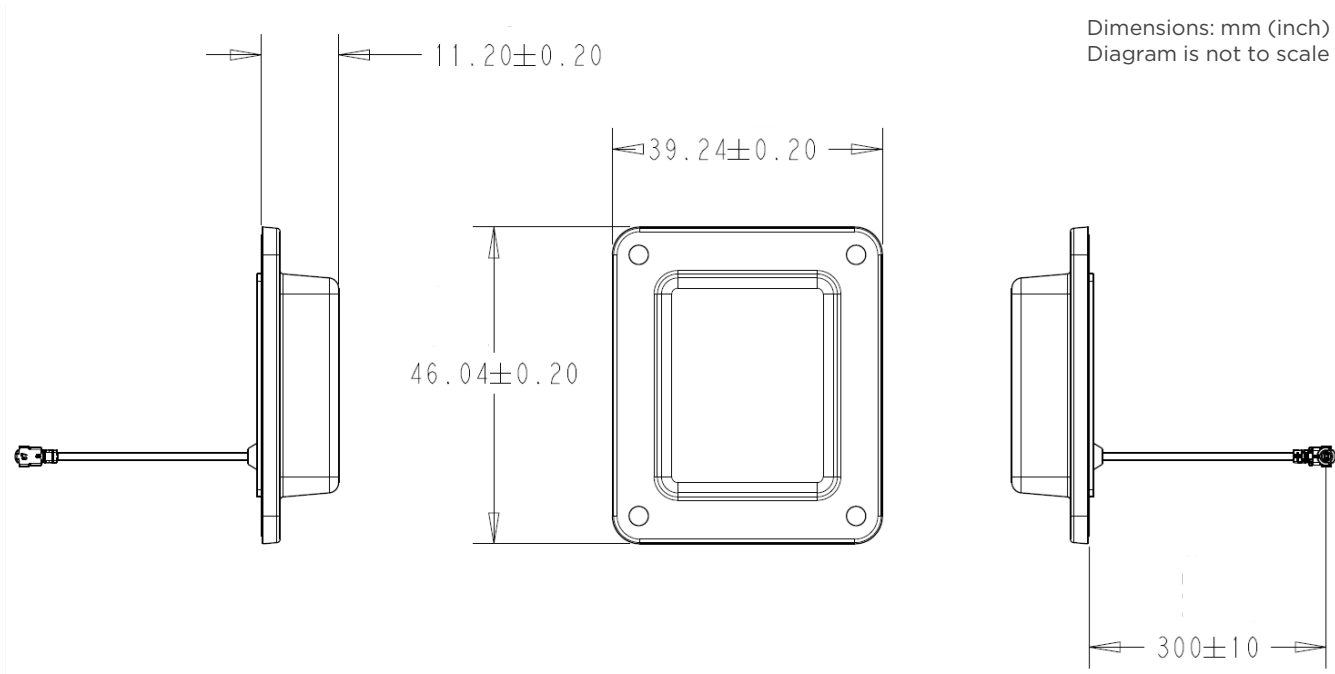
DESIGN GUIDELINES



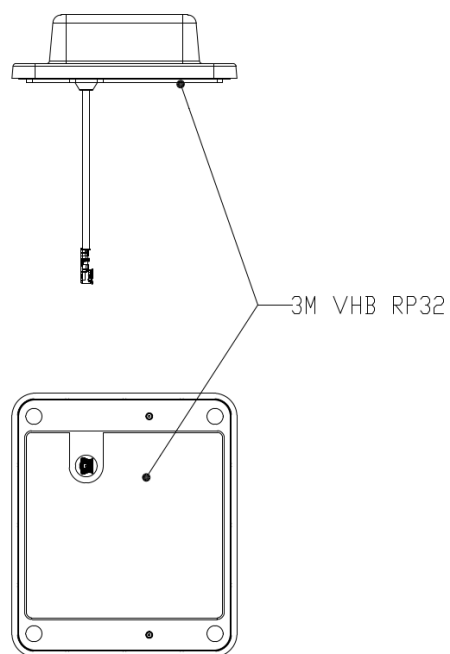
NOTES : 1.Antenna designed to be screw mounted on PCB.
2.Area in blue above indicates Keep Out Area.
3.For more information, please call TE.

Dimensions: mm (inch)
Diagram is not to scale

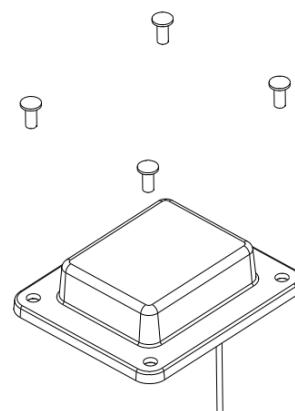
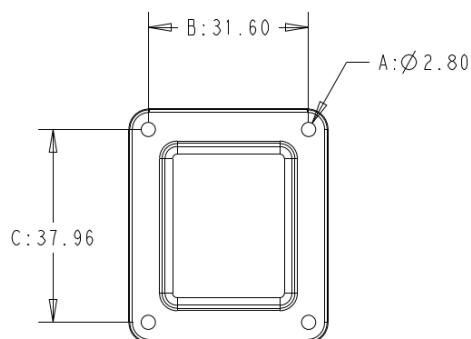
MECHANICAL DRAWINGS



INSTALLATION GUIDE



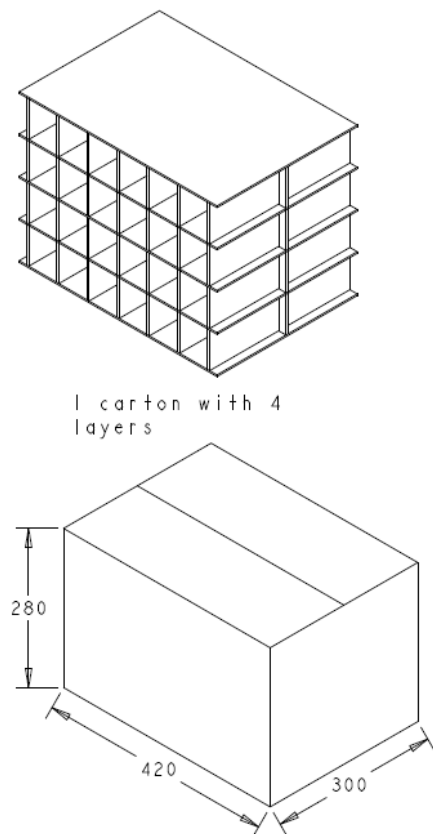
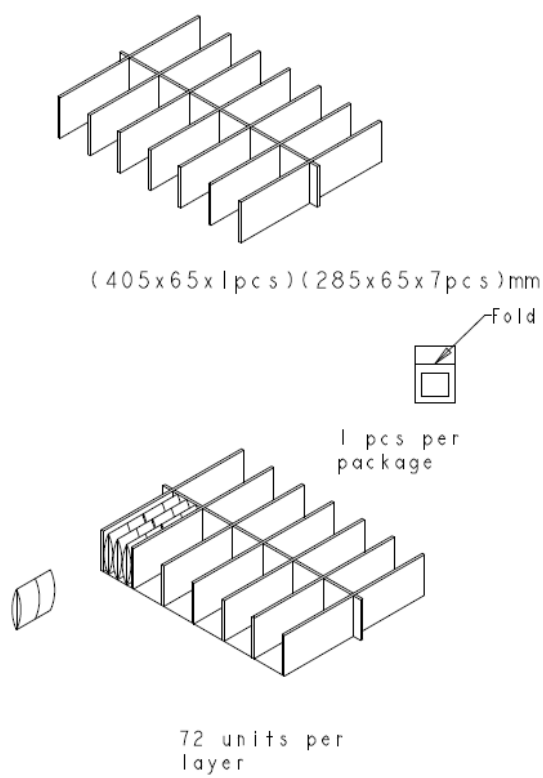
Note: The Installation screws are not included



SCREWS	A	B	C	Recommended Torque
M2	DIA 2.8mm	31.6mm	37.96mm	2-4kg f-cm

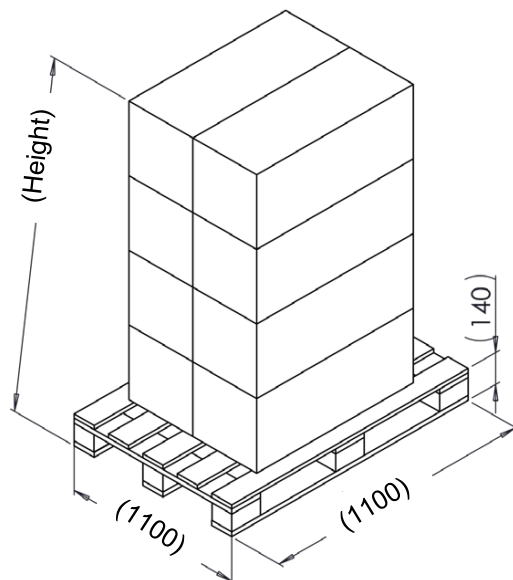
Dimensions: mm (inch)
Diagram is not to scale

PACKAGING



Dimensions: mm (inch)
Diagram is not to scale

PACKAGING



AIR & OCEAN PALLET

PACKAGED DIMENSIONS	UNIT CARTON	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	1	288	11520	13824
Height - mm (in)	11.98 (0.472)	280 (11.02)	1450 (57.08)	1730 (68.11)
Length - mm (in)	39.24 (1.54)	420 (16.53)	1100 (43.3)	1100 (43.3)
Width - mm (in)	46.1 (1.81)	300 (11.81)	1100 (43.3)	1100 (43.3)
Est. Shipping Weight - kg (lbs.)	0.009 (0.023)	3.86 (8.5)	169.4 (373.46)	200.28 (441.54)

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