Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

Features & Applications:

- *5-in-1 combo antenna*
- *2xMiMo 5G-FR1 (4G compatible)*
- *2xMiMo WiFi 6E/7*
- *Active GNSS L1 RHCP Patch antenna*
- *High out of band rejection filters*
- *Adhesive mount, ideal for plastic and glass surface installation*
- *Optional plastic bracket included*

ELECTRICAL SPECIFICATIONS

General Specifications – 5G FR1 / WiFi 6E/7

Antenna type	Impedance	Polarization	Rad. Pattern	Power withstanding	DC Ground
Monopole[1]	50Ω	Vertical / Linear	Omni	2W	No

5G FR1 Antennas: 617 – 7125MHz

Port	Frequency (MHz)	617-960	1710-2700	3300-7125
Port 1, 2	VSWR	2.5:1	2:1	2:1
	Avg. Peak Gain (dBi)	2.5	5.5	5.1
	Avg. Efficiency (%)	48	62	60
Isolation[2]	Port 1-2 (dB)	10	20	30

WiFi 6E/7 Antennas: 2400-2500 /5150-7125MHz

Port	Frequency (MHz)	2400-2500	5150-7125
Port 3, 4	VSWR	2:1	2:1
	Avg. Peak Gain (dBi)	4.5	3.3
	Avg. Efficiency (%)	60	58
Isolation[2]	Port 3-4 (dB)	13	25

GNSS Antenna:1560-1610MHz

Antenna type	Nominal Impedance	Polarization
Patch antenna	50 Ω	RHCP
Frequency (MHz)	1561.098 ± 2.046/ 1575.42 ± 1.023/ 1602.5625 ± 4	
Return Loss (dB)	<-7 dB	
LNA Gain	30dB ± 2 dB	
Current consumption	<10 mA	
DC voltage in via GNSS RF cable	3.3-5 Vdc ± 0.5V	

MECHANICAL SPECIFICATIONS

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Dimension (L x W x H)	Weight	Color	Fixing System	Housing Material
178 x 60x19 mm (7.01" x2.36"x 0.75")	600 g	Black	Adhesive Mount (3M VHB 4991(Gray)) / Bracket	PC (UV-stabilized)
Wireless Technology	**No. of Port**	**Cable Length**	**Cable Type**	**Connector Type**
5G FR1/LTE	2	10FT (3.048M)	LMR195	SMA Male
GNSS	1	10FT (3.048M)	LMR100	SMA Male
WiFi 6E/7	2	10FT (3.048M)	LMR195	RP SMA Male

ENVIRONMENTAL SPECIFICATIONS

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Storage Temperature	Operating Temperature	Ingress Protection	RoHS Compliant
-40 / +85° C	-40 / +85° C	IP65	Yes

Notes:
1. 5G-FR1 and WiFi 6E/7: Multi-Band Monopoles with built in ground plane, 2. Minimum Isolation (dB)

Mechanical Drawing

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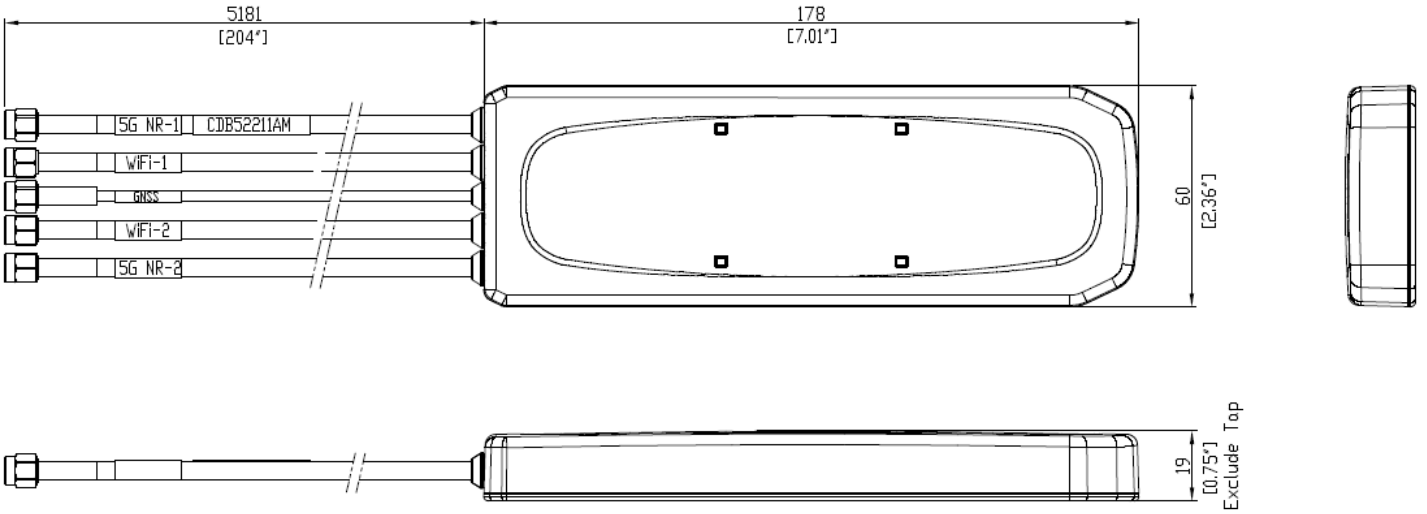
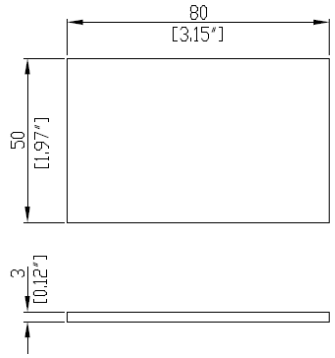
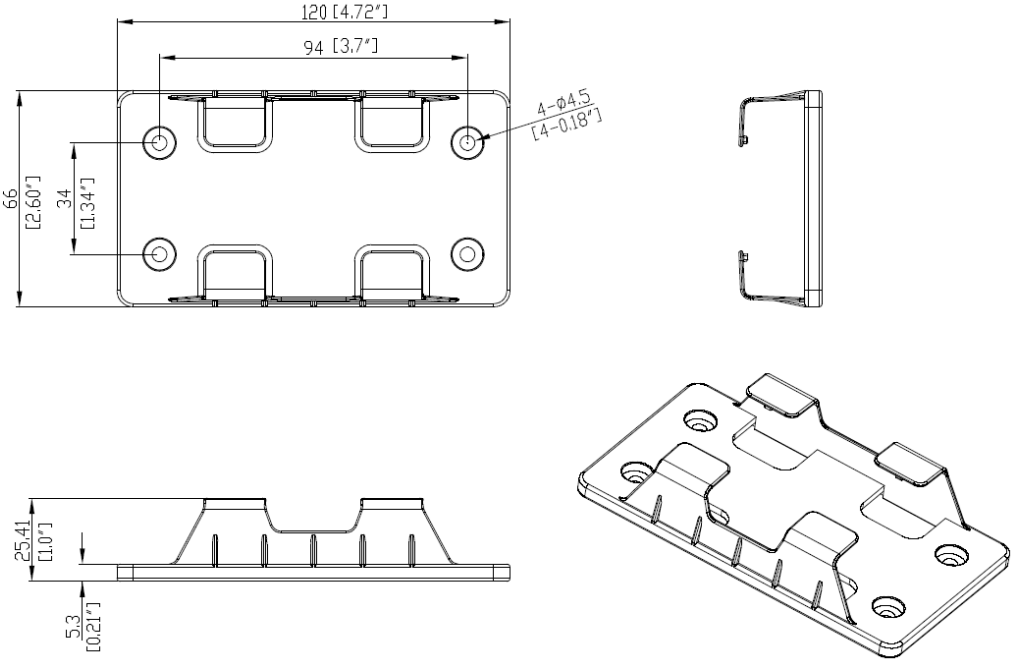
Antenna



3M VHB Tape



Plastic Bracket

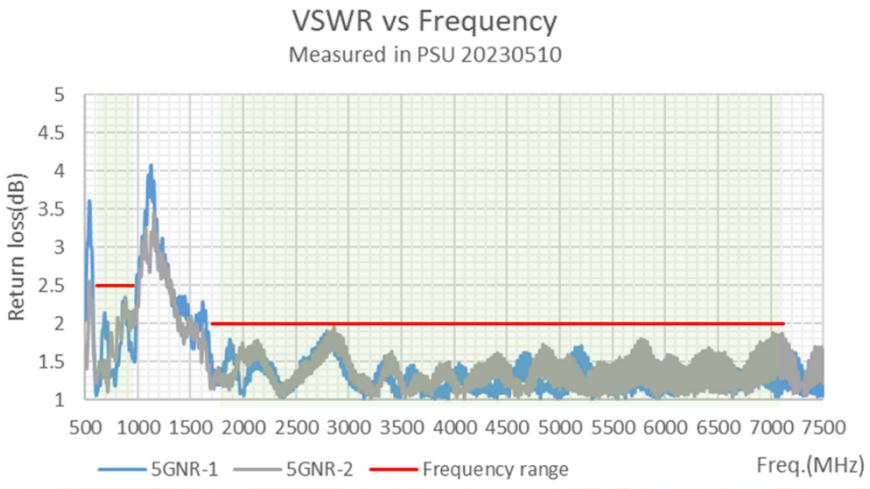


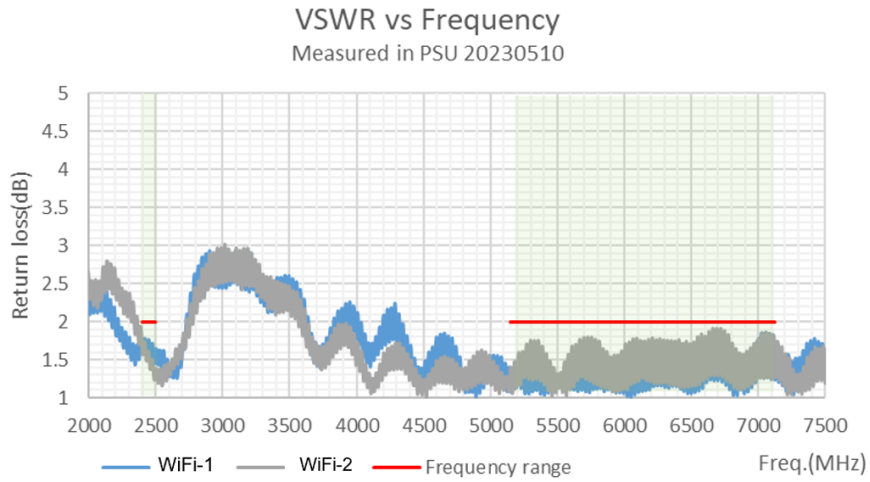
*Tape and bracket package separately

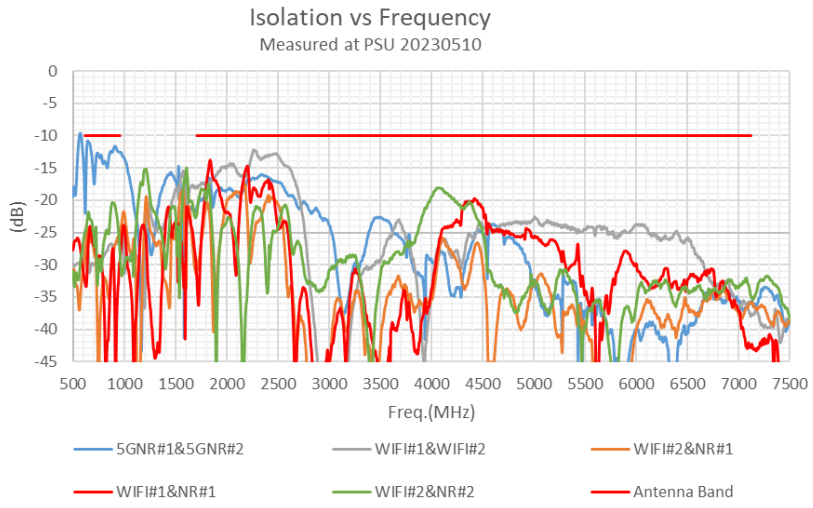
Unit: mm/ inches

Charts

Test data
5G NR Antennas



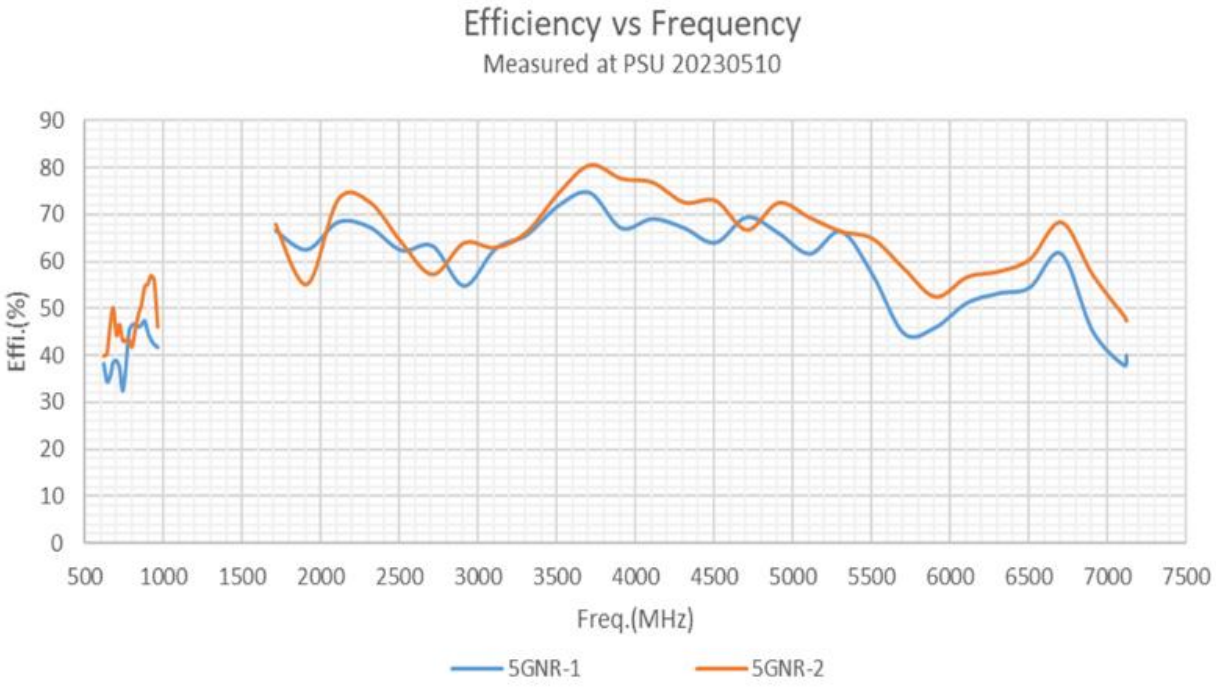


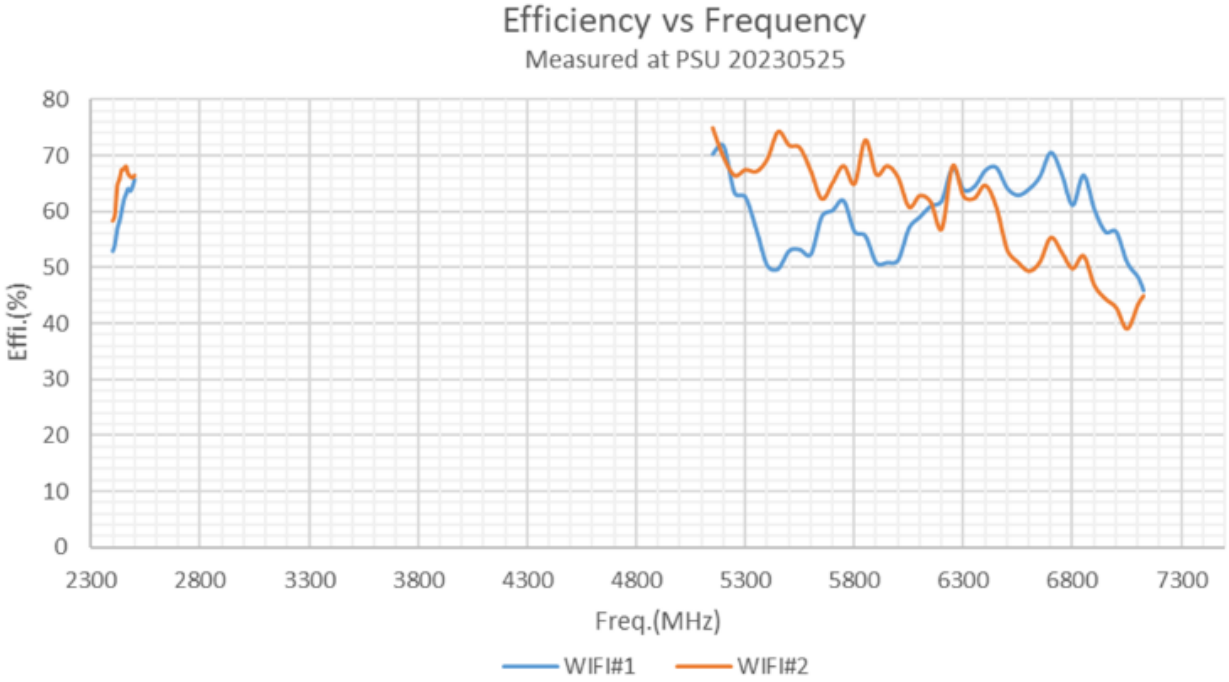


*Antenna VSWR test in free space and 10-ft cables

Charts

Test data
5G NR Antennas

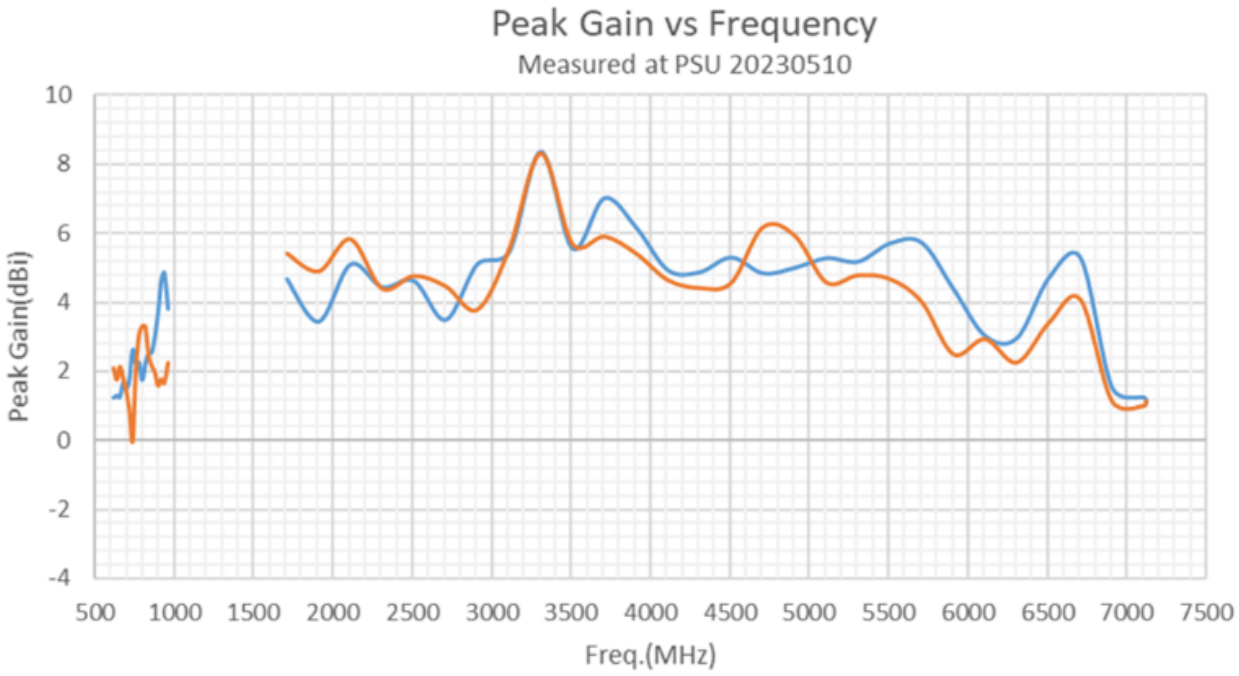


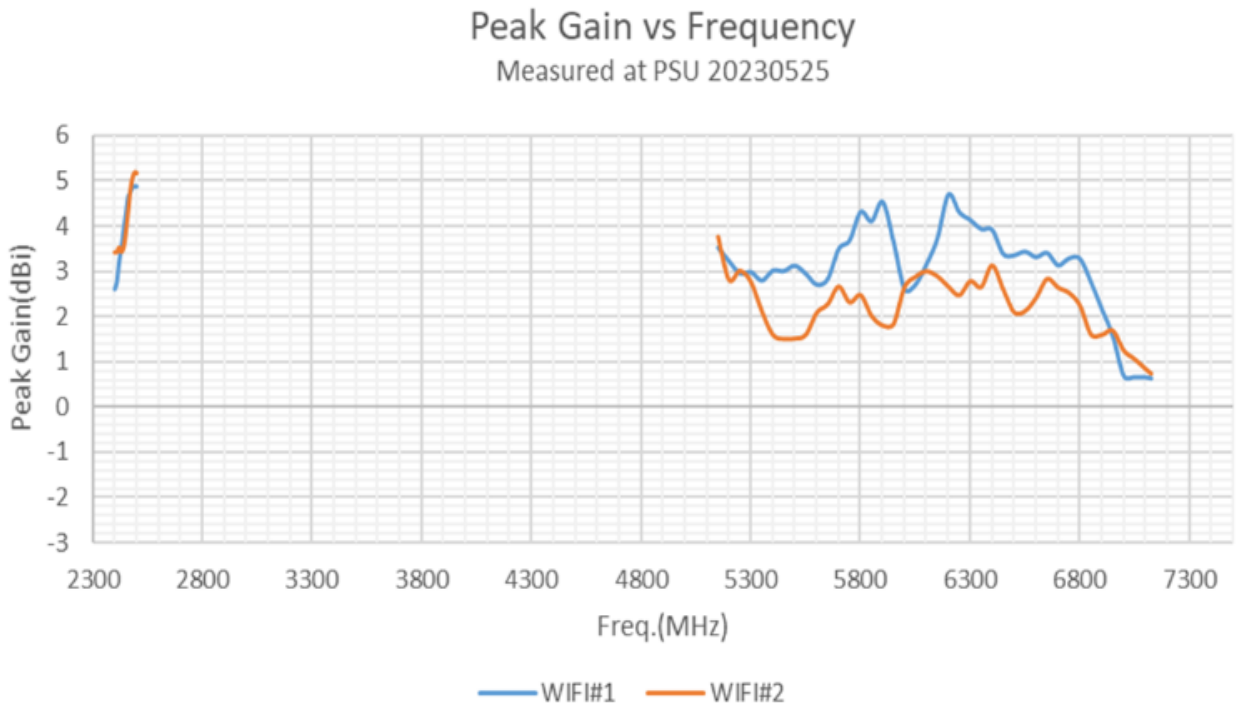


* antenna test in free space and 1-ft cables

Charts

Test data
5G NR Antennas

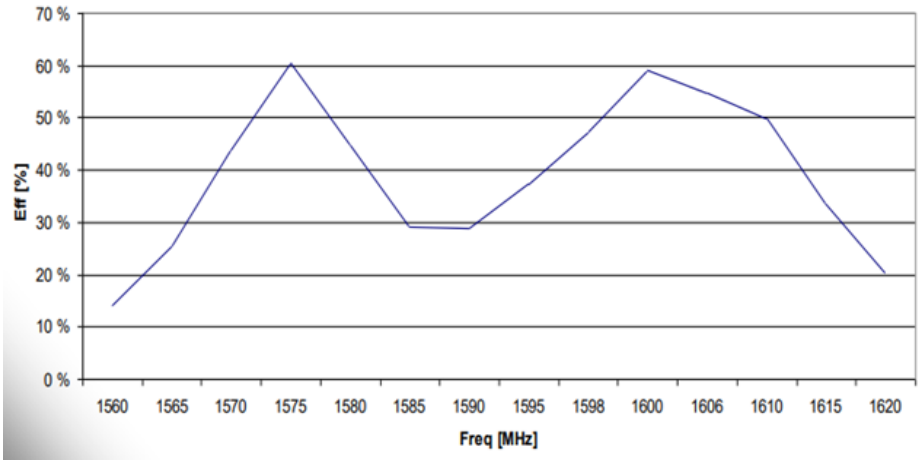




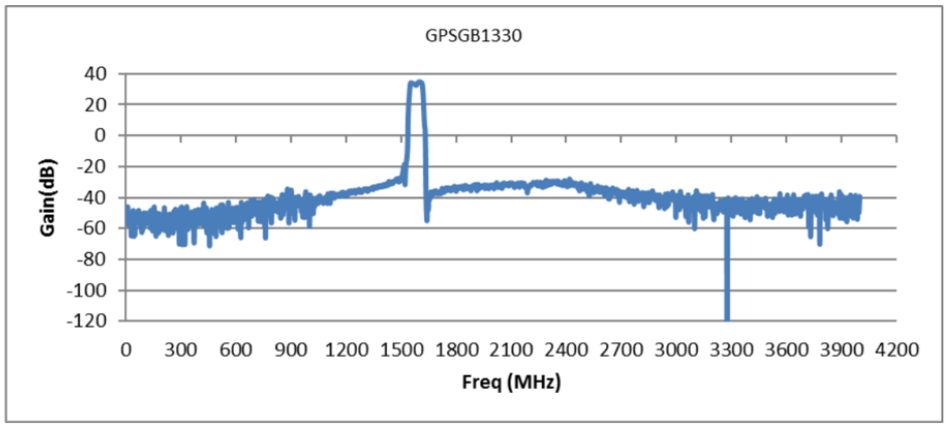
* Antenna test in free space and 1-ft cables

Charts

Test data
GNSS Antenna



LNA Gain and out-of-band rejection



Testing Setup

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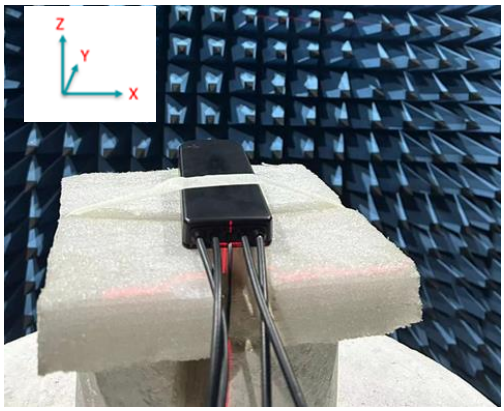
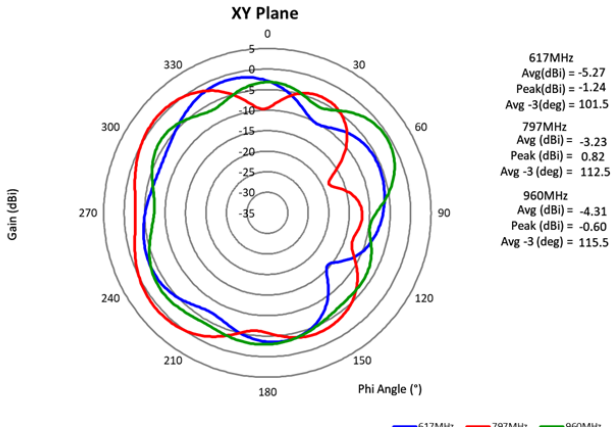
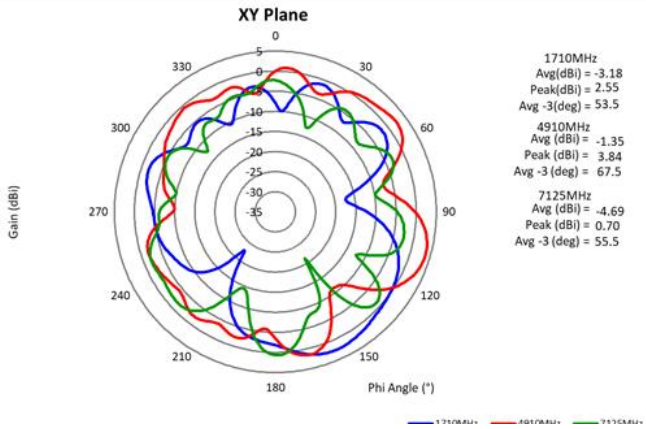
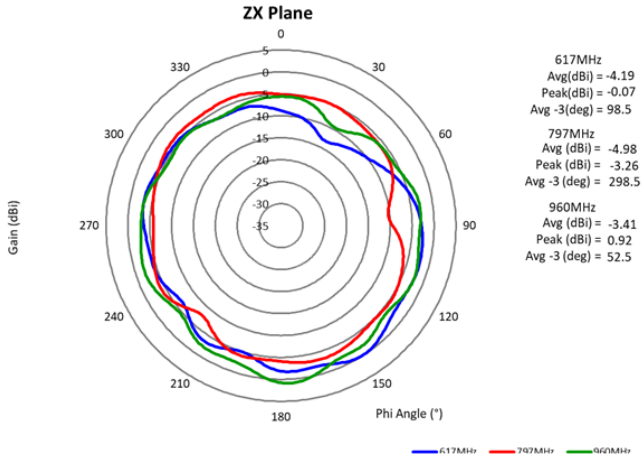


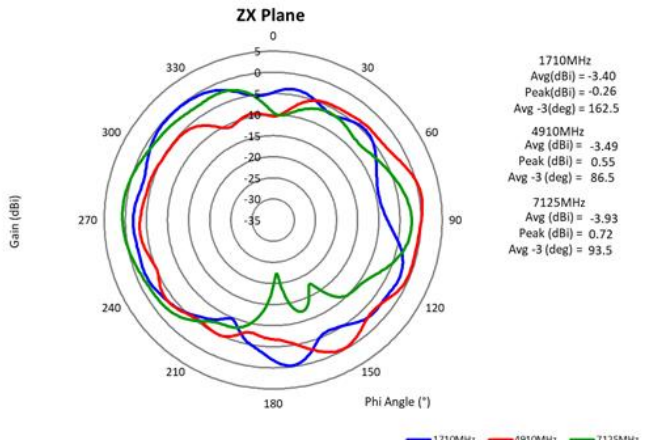
Radiation Pattern

Test data
5G NR-1 Antennas



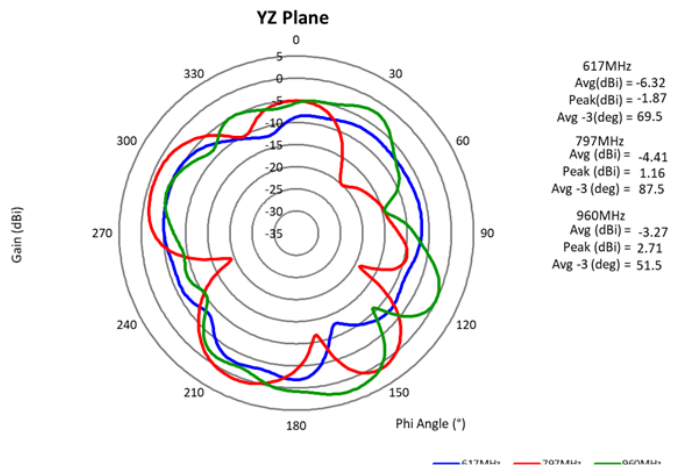


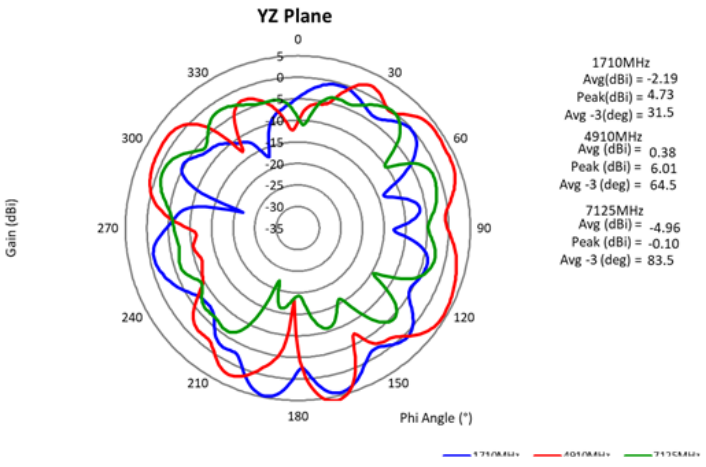




Radiation Pattern

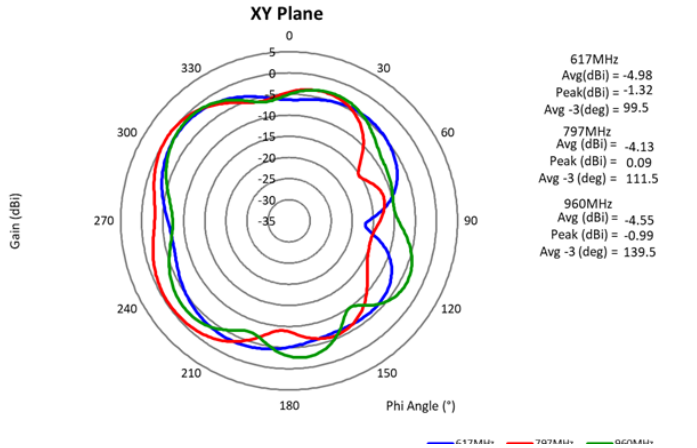
Test data
5G NR-1 Antennas

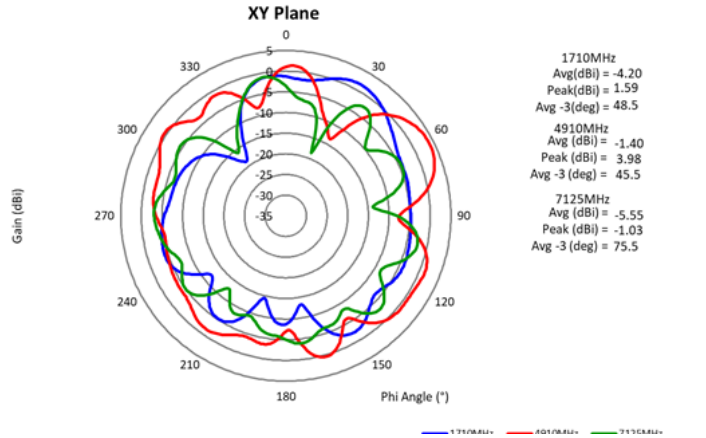


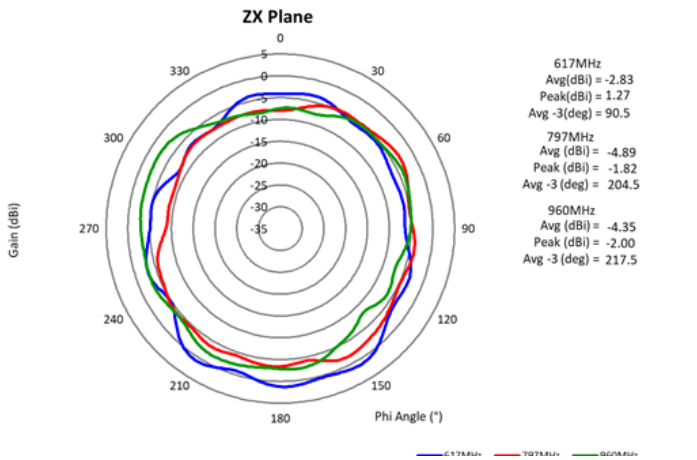


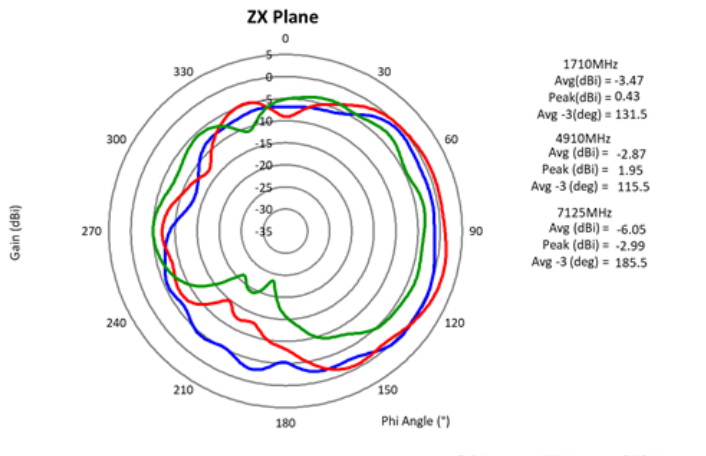
Radiation Pattern

Test data
5G NR-2 Antennas



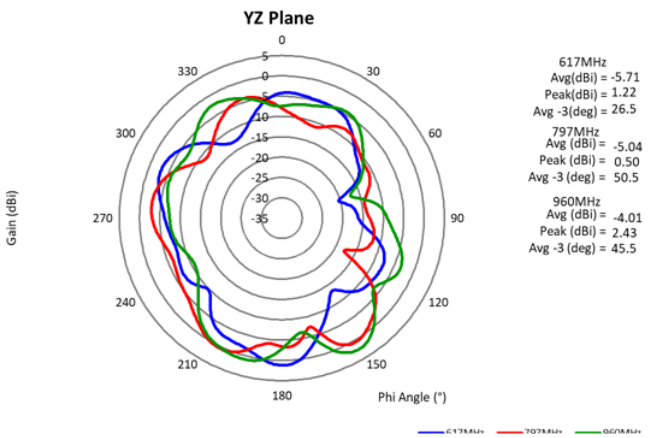


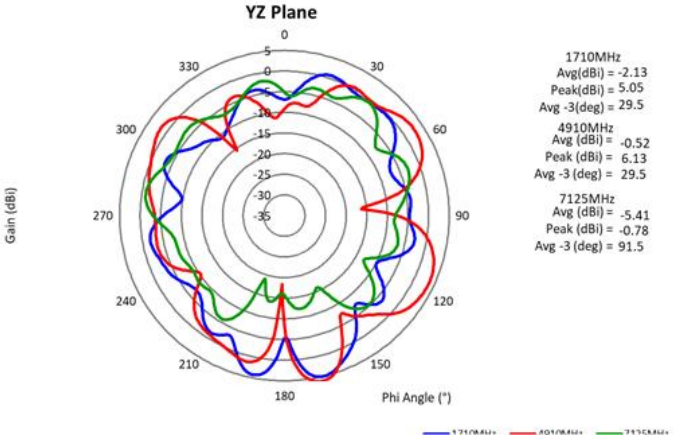




Radiation Pattern

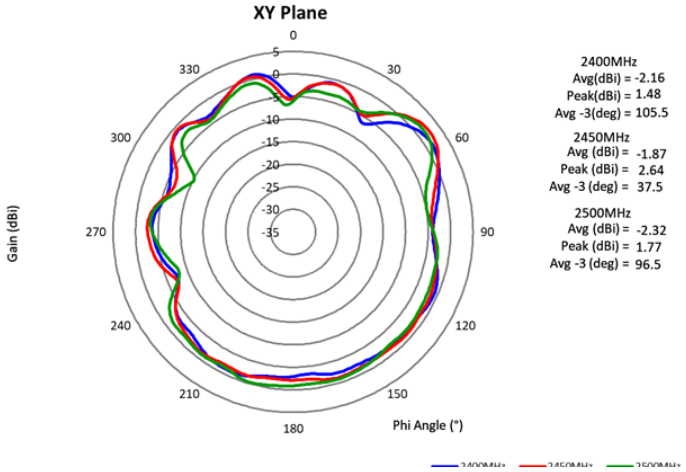
Test data
5G NR-2 Antennas

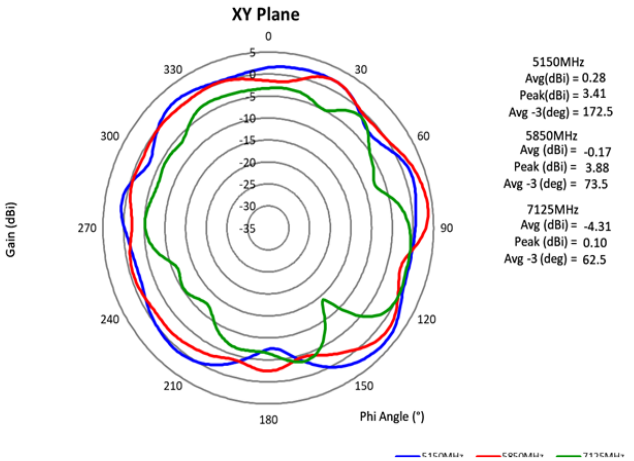


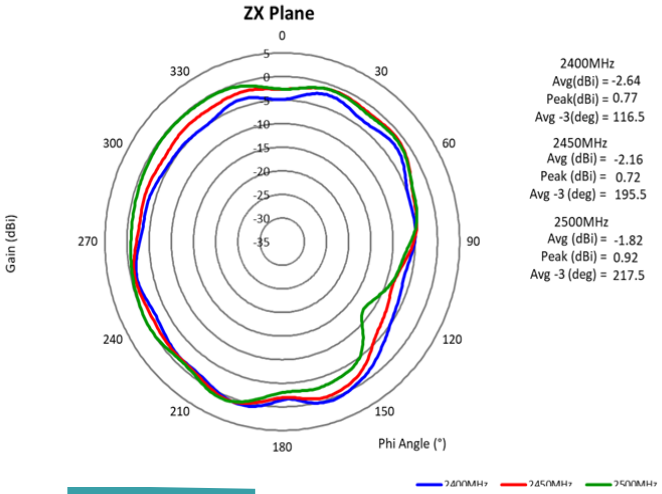


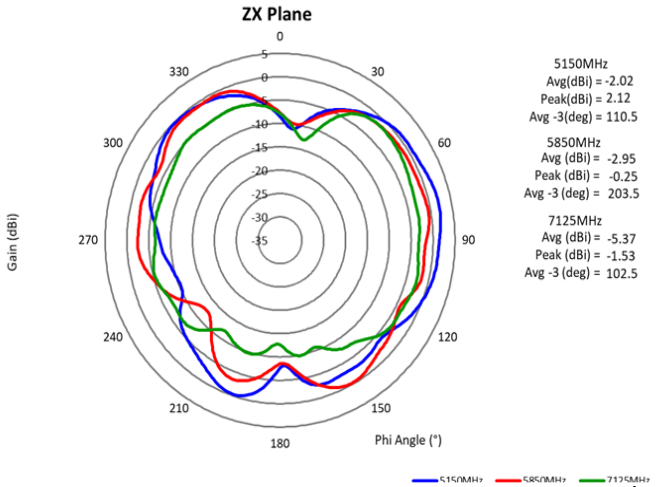
Radiation Pattern

Test data
WiFi1-Antennas



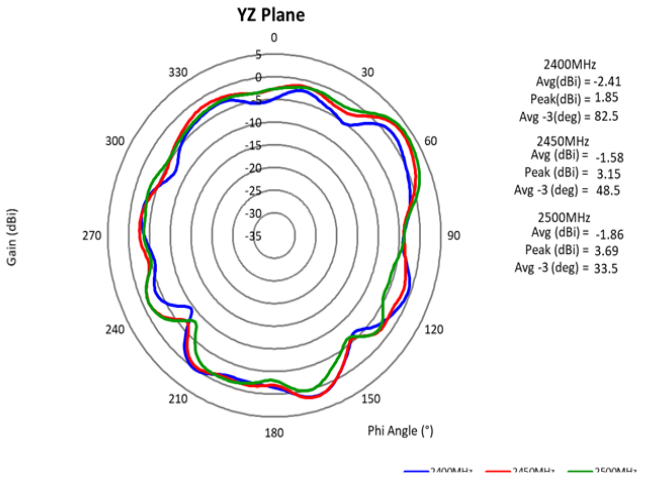


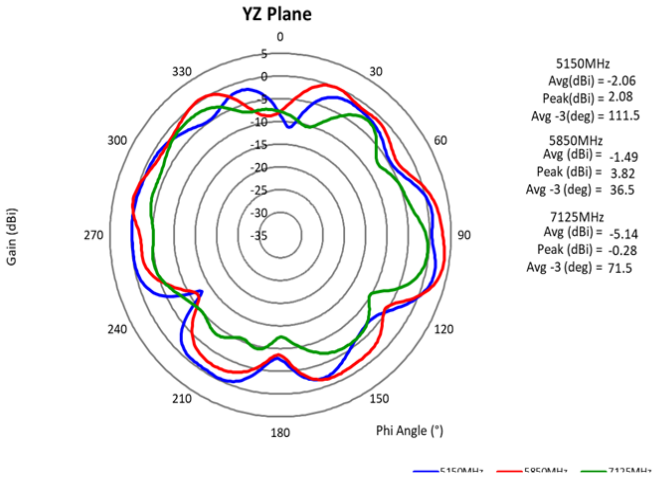




Radiation Pattern

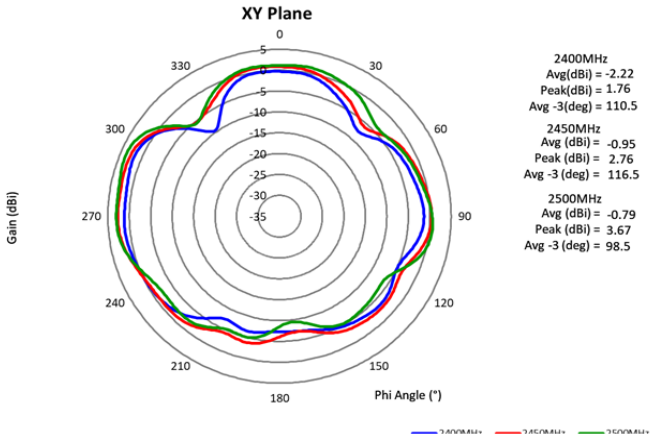
Test data
WIFI-1 Antennas

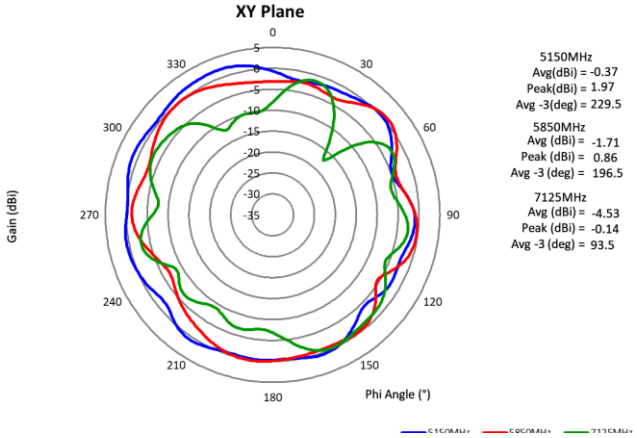


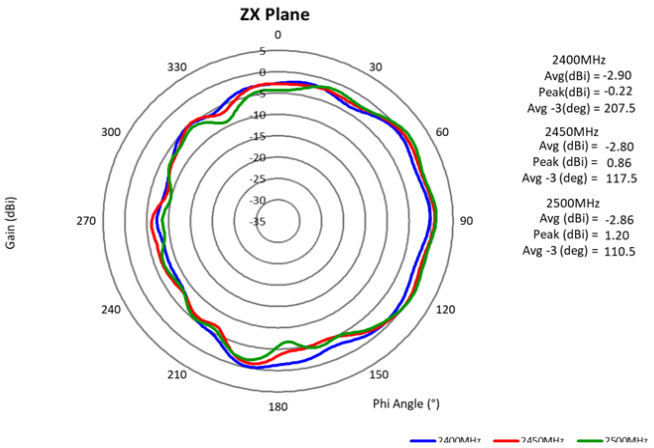


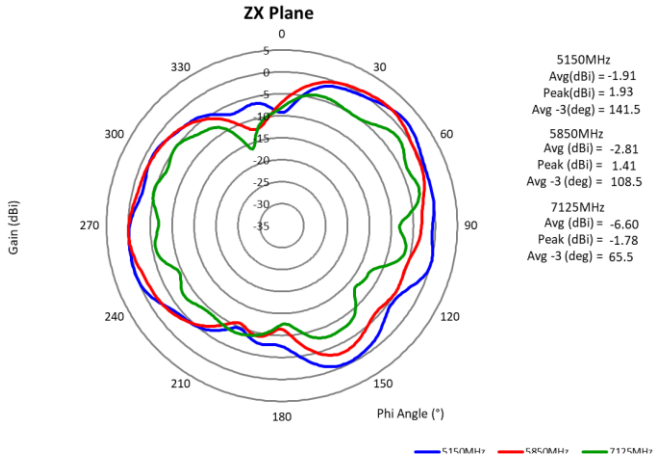
Radiation Pattern

Test data
WiFi2-Antennas



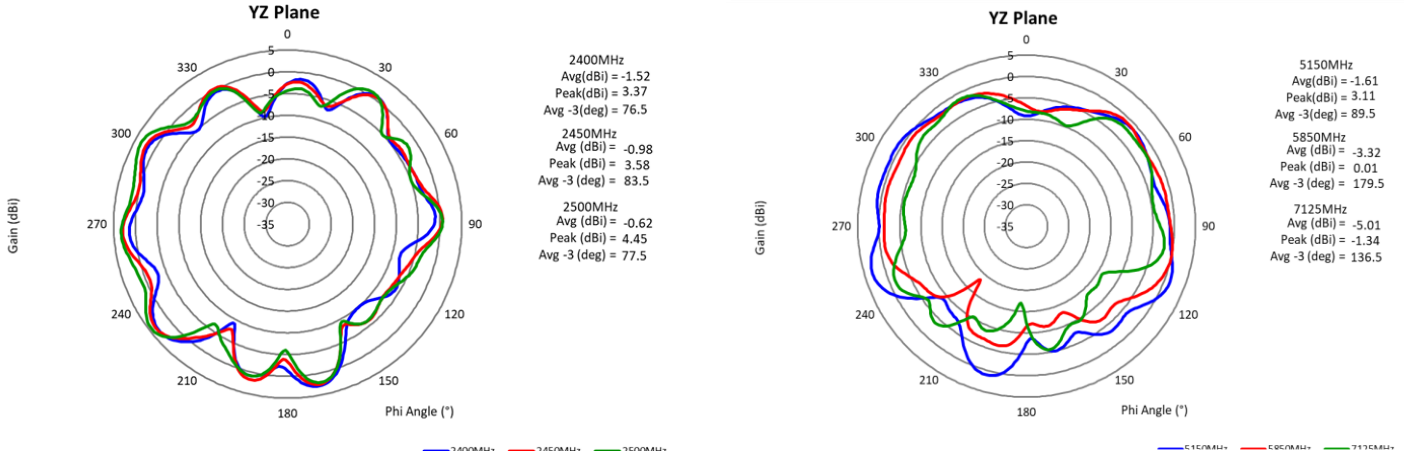






Radiation Pattern

Test data
WIFI-2 Antennas



Packing

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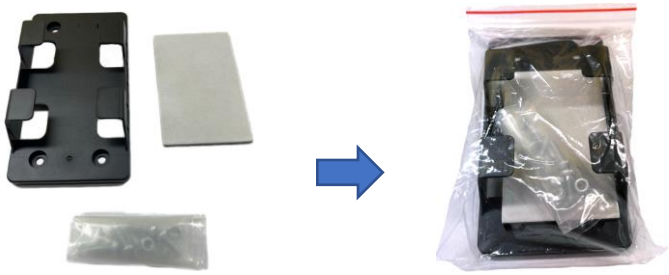
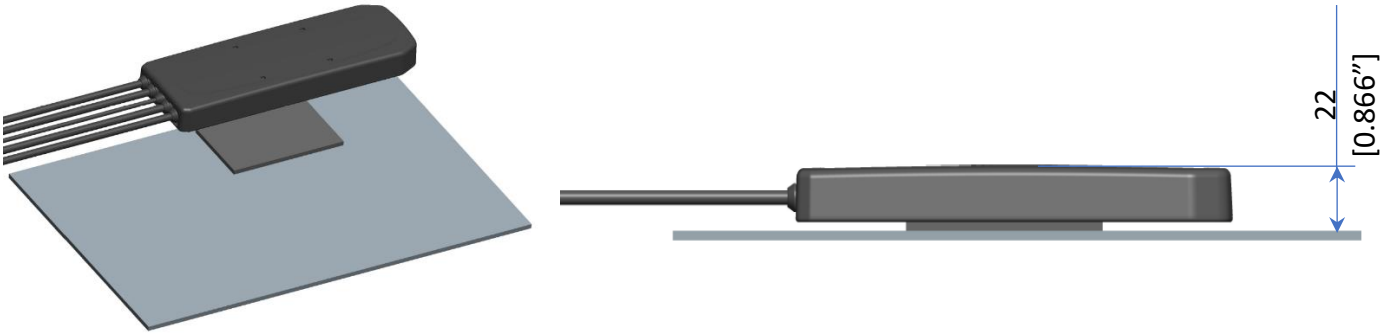
1.Put the accessories： the bracket , the tape, and the screw into one PE bag.	
2.Put one antenna and one bag accessories into a big packing bag.	
3. Put the partition board into the outer box, and put 1 products in every grid, 6 sets products per outer box.	

Mounting Instructions

CDB52211AM

Option 1: Tape Mount

Apply to the surface of the glass fiber or plastic material, the antenna could be adhered on the surface by the 3MVHB adhesive tape (3M VHB4959 80X50mm).



Option 2: Plastic Bracket Mount

Firstly, fix the bracket on the customer side with 4sets M4 screws, M4 nut, flat washer and spring washer;

Then push the antenna into the plastic bracket.