chanhvinh.com

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

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

Pulse
a YAGEO company



Features & Applications:

- *5-in-1 combo antenna*
- *2xMiMo 5G-FR1 (4G compatible)*
- *2xMiMo WiFi 6E/7*
- *Active GNSS L1 RHCP Patch antenna*
- *LNA Gain 30dB*
- *High out of band rejection filters*
- *ESD protected*
- *Adhesive mount, ideal for plastic and glass surface installation*
- *Optional plastic bracket included*

ELECTRICAL SPECIFICATIONS

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

Antenna type	Nominal Impedance	Polarization	Radiation 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

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

chanhvinh.com

Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

MECHANICAL SPECIFICATIONS				
CDB52211AM				
Dimension (Length x Width x Height)	**Weight**	**Color**	**Fixing System**	**Housing Material**
178 x 60x19 mm (7.01” x2.36”x 0.75”)	575 g	Black	Adhesive Mount / Bracket (3M VHB 4959)	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			
CDB52211AM			
Storage Temperature	**Operating Temperature**	**Ingress Protection**	**RoHS Compliant**
-40 / +85° C	-40 / +85° C	IP67	Yes

chanhvinh.com

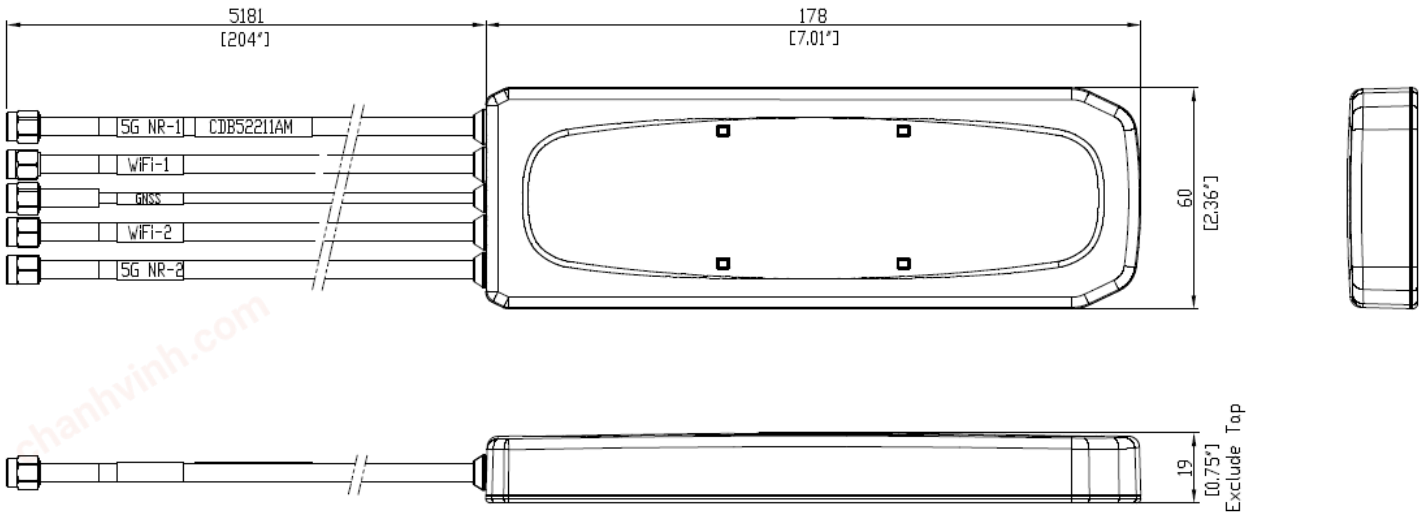
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

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

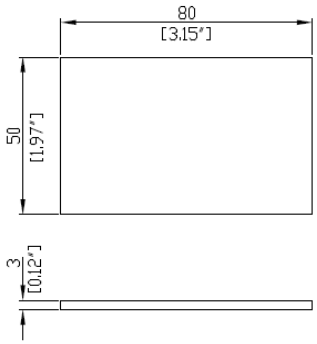
Mechanical Drawing

CDB52211AM

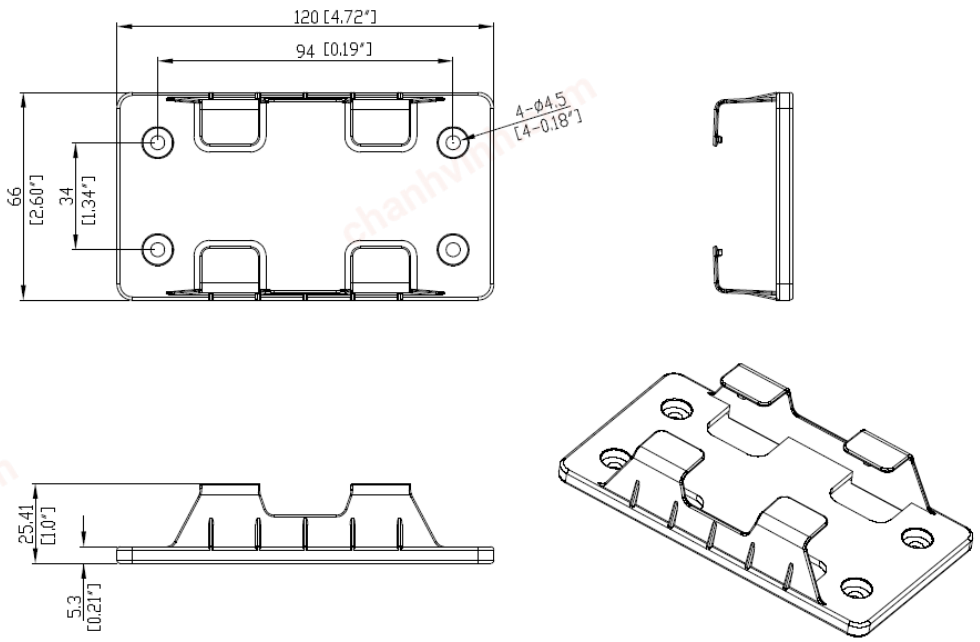
Antenna



3M VHB Tape



Plastic Bracket



*Tape and bracket package separately

Unit: mm/ inches

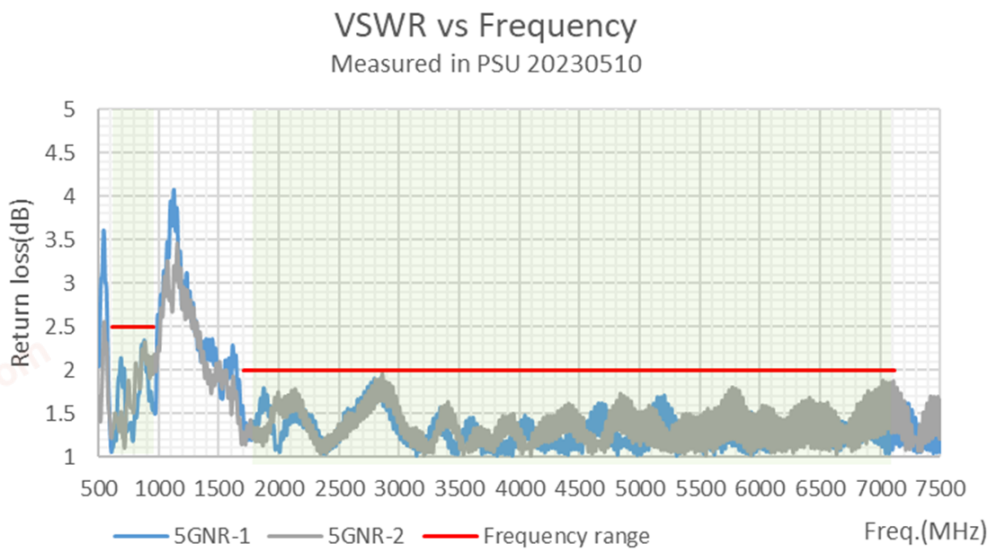
chanhvinh.com

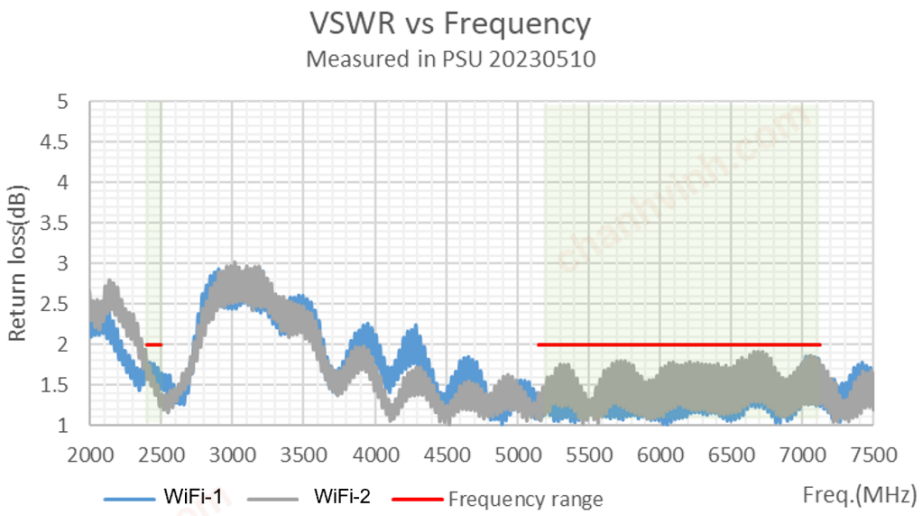
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

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

Charts

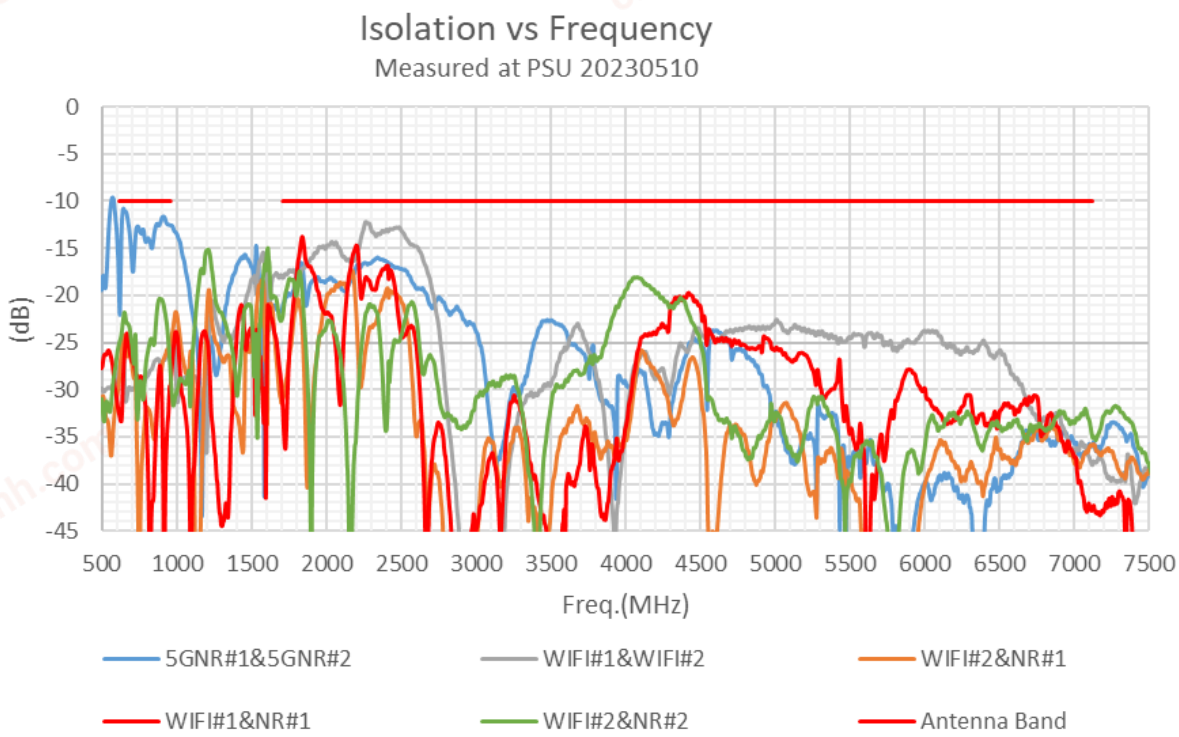
Test data
5G NR Antennas





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

chanhvinh.com



chanhvinh.com

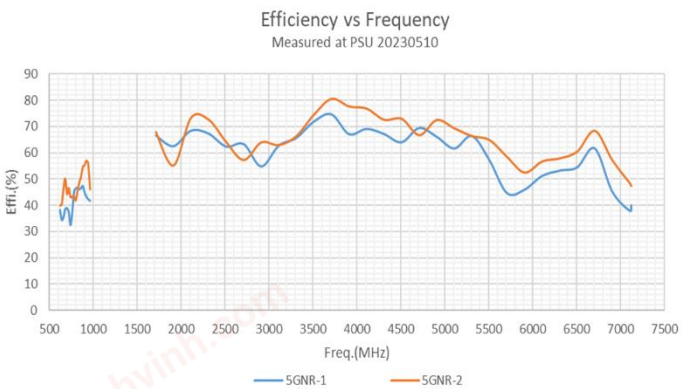
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

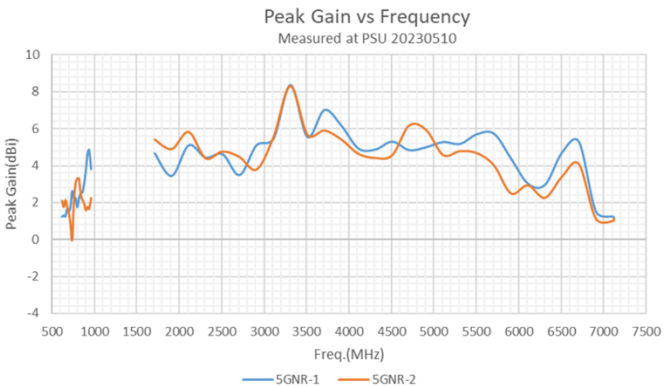
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

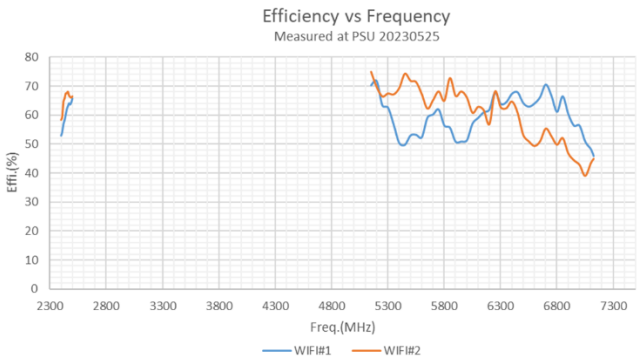
Pulse a YAGEO company

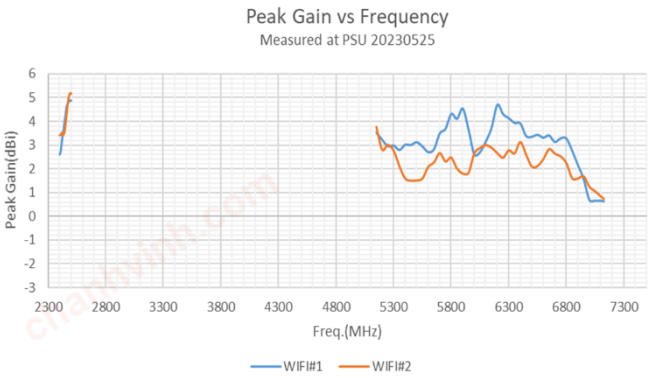
Charts

Test data
5G NR Antennas









* antenna test in free space and 1-ft cables

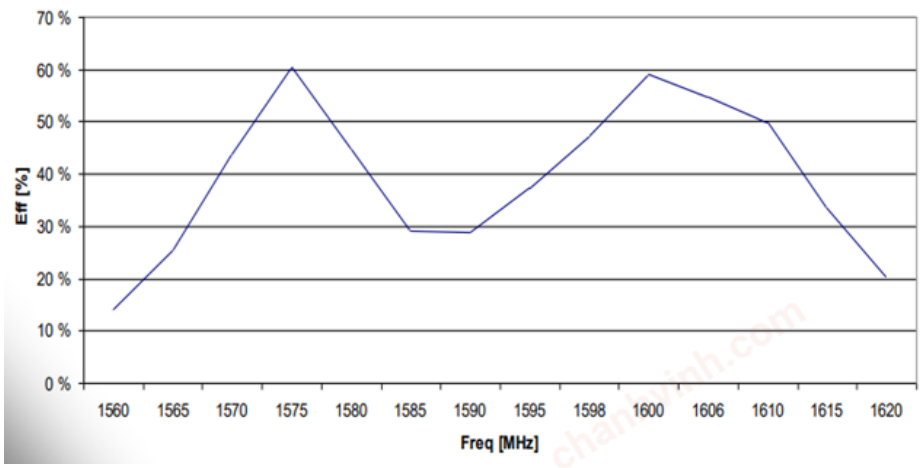
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

Pulse a YAGEO company

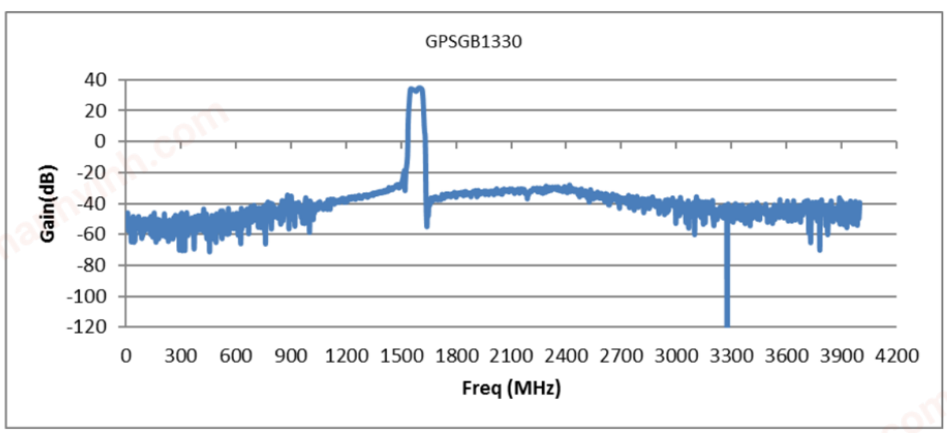
Charts

Test data
GNSS Antenna





LNA Gain and out-of-band rejection



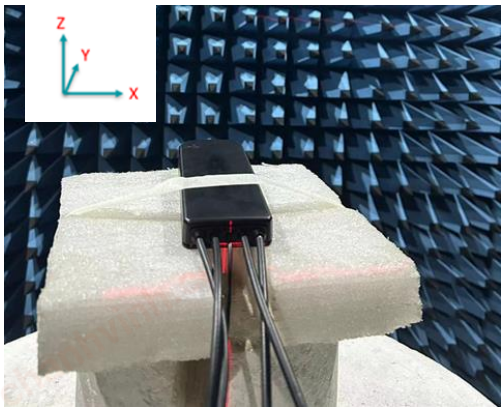
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

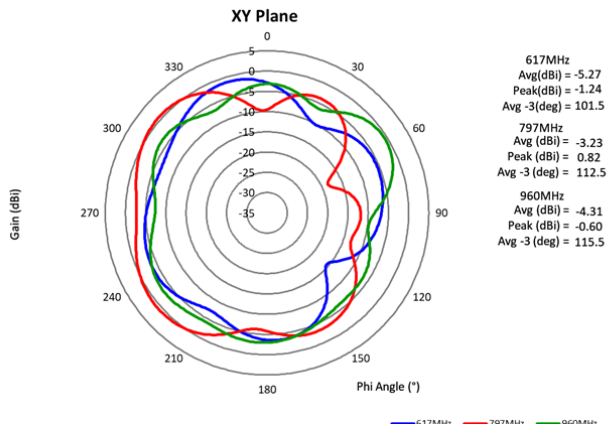
Pulse a YAGEO company

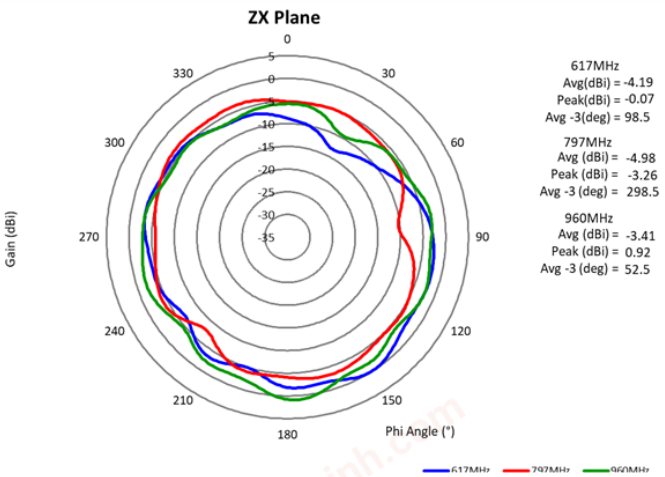
Charts

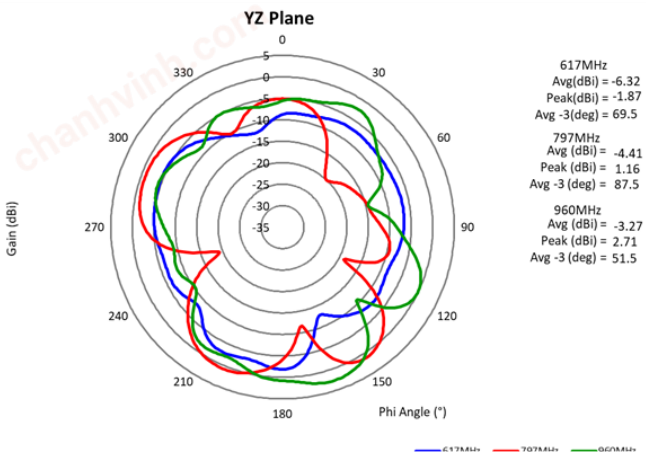
Test data
5G NR-1 Antennas

Radiation Pattern









chanhvinh.com

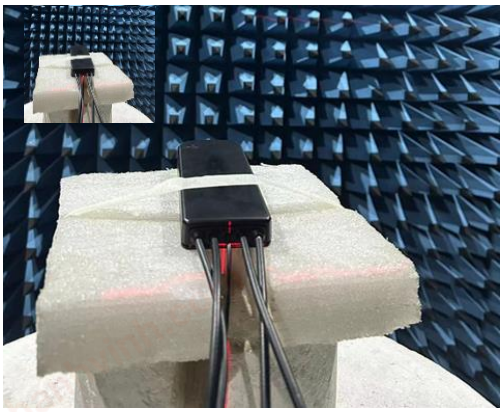
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

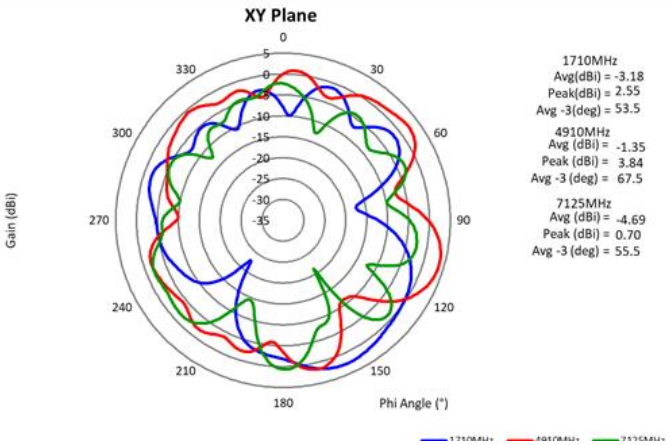
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

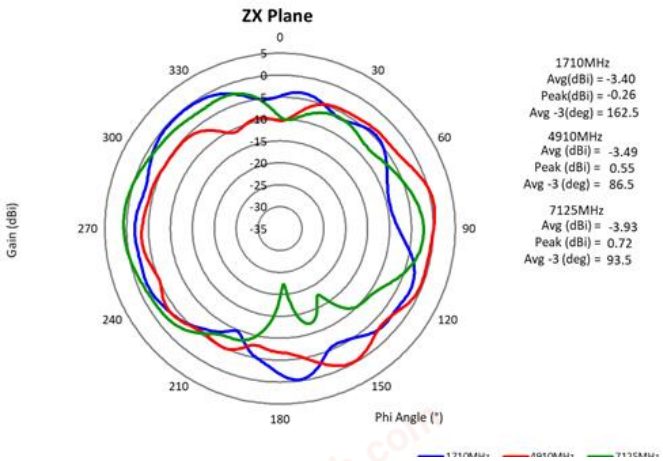
Pulse a YAGEO company

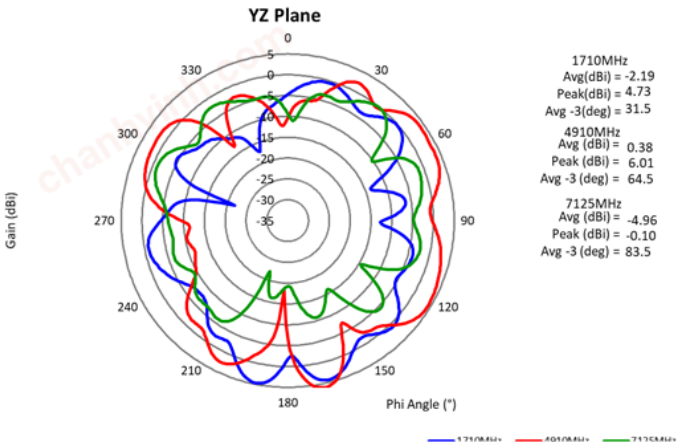
Charts

Test data
5G NR-1 Antennas









chanhvinh.com

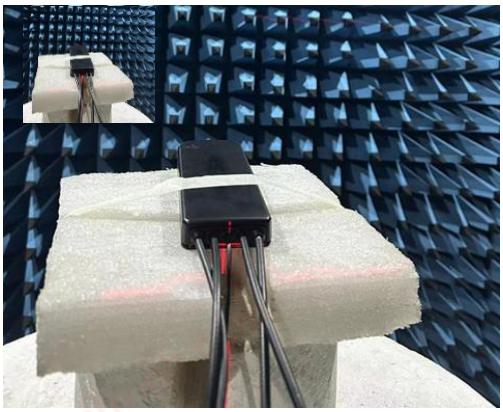
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

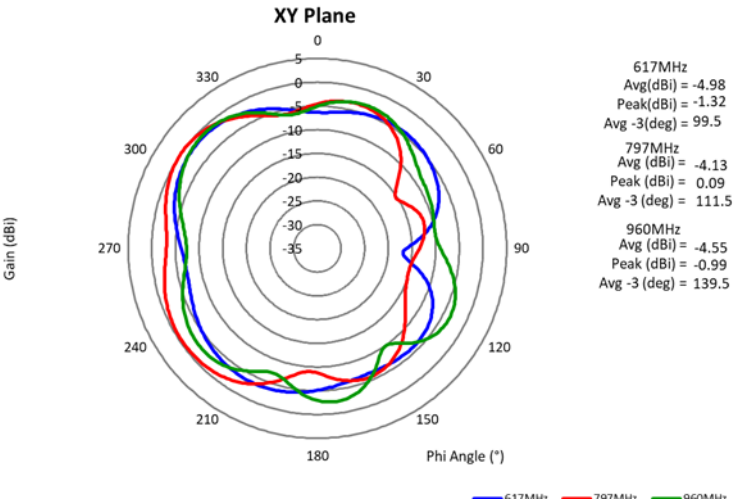
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

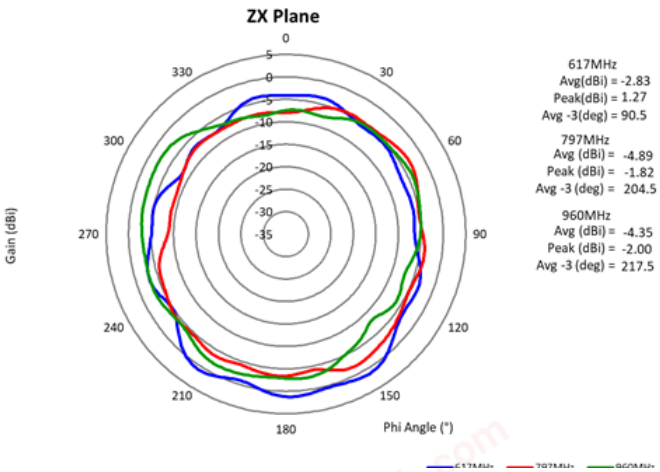
Pulse a YAGEO company

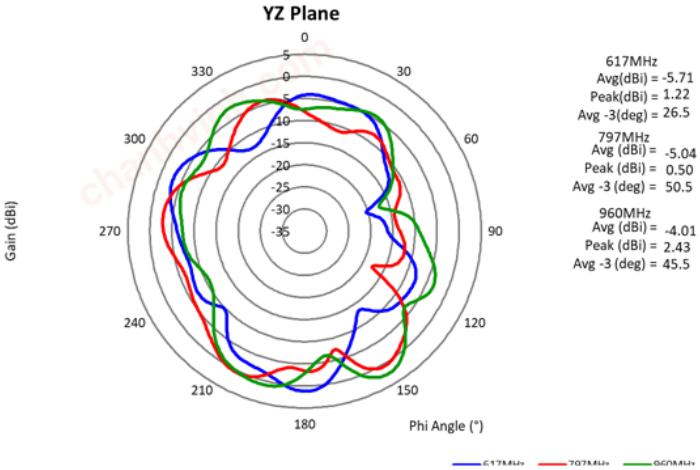
Charts

Test data
5G NR-2 Antennas









chanhvinh.com

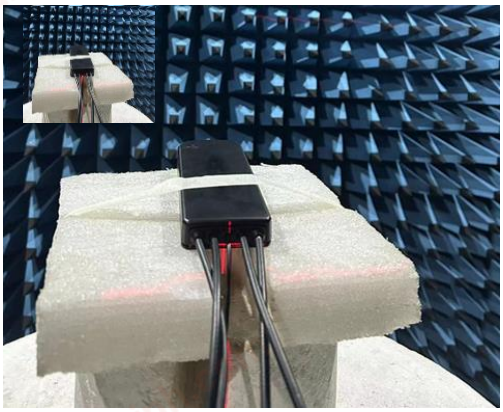
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

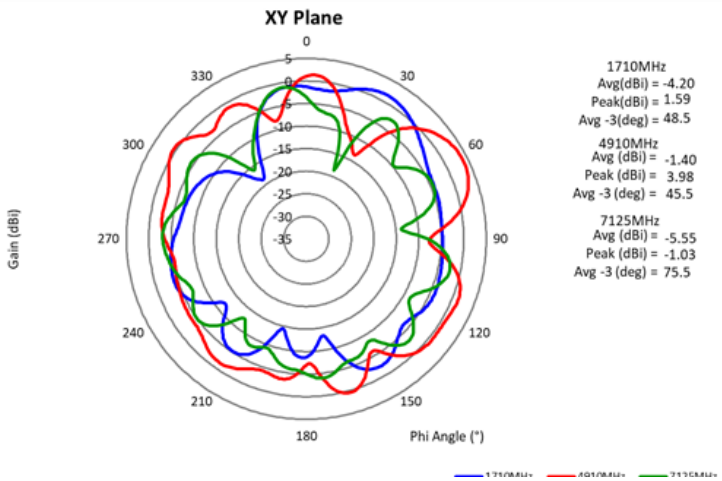
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

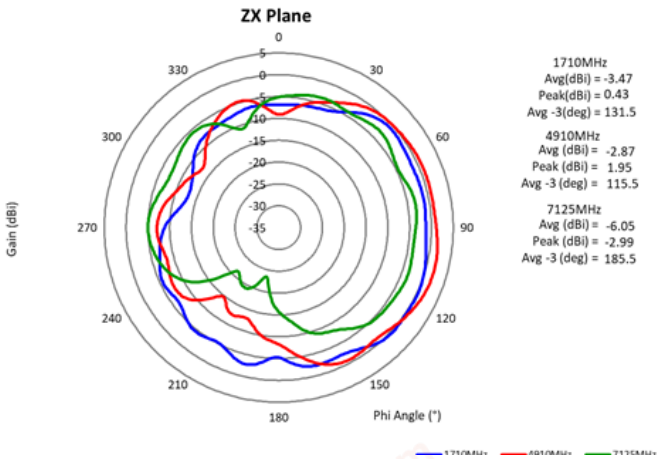
Pulse a YAGEO company

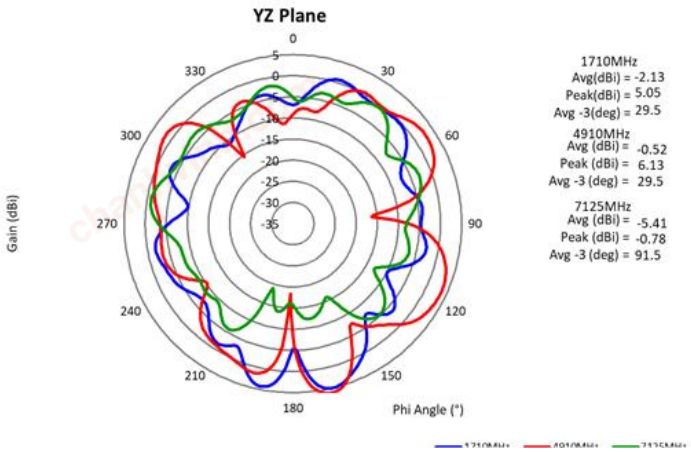
Charts

Test data
5G NR-2 Antennas









chanhvinh.com

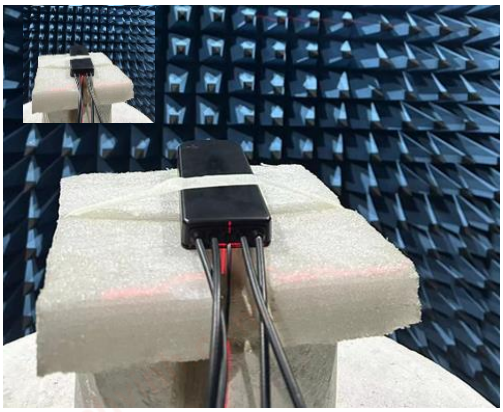
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

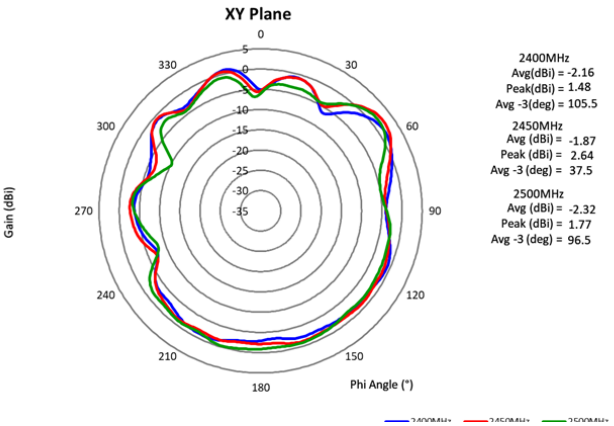
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

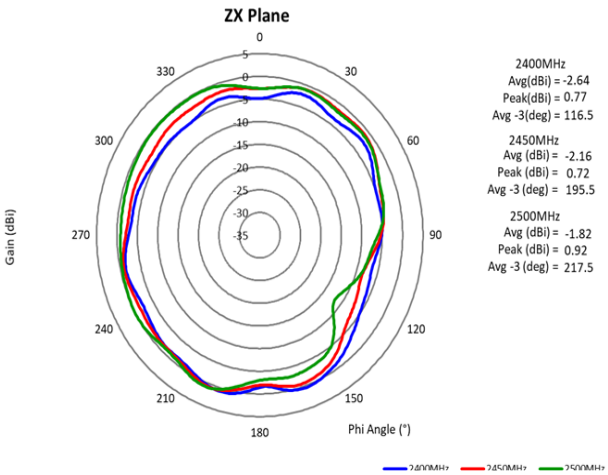
Pulse a YAGEO company

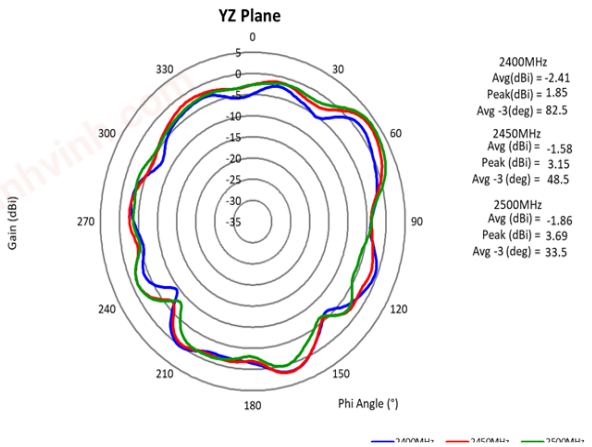
Charts

Test data
WIFI-1 Antennas







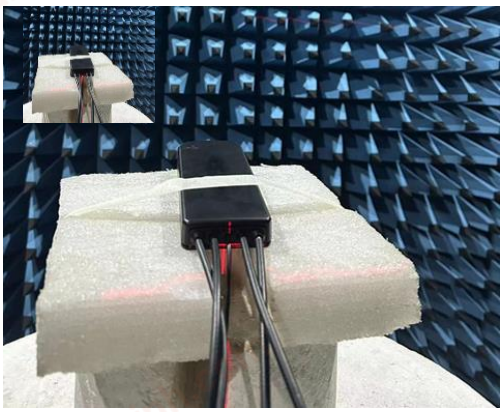


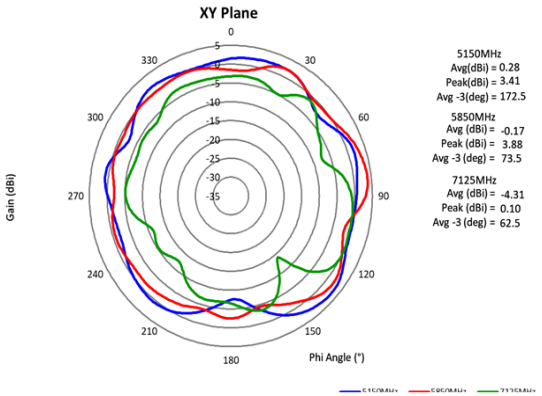
chanhvinh.com

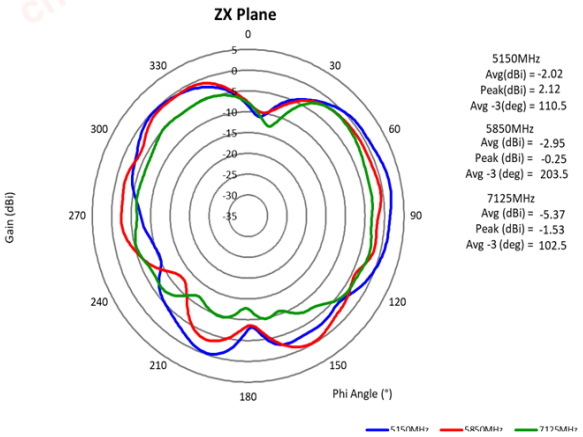
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

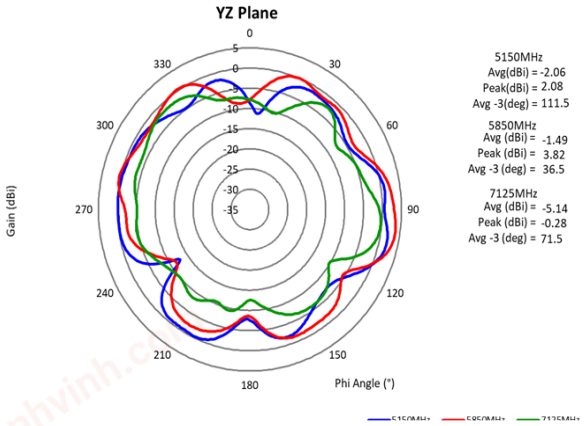
Charts

Test data
WIFI-1 Antennas







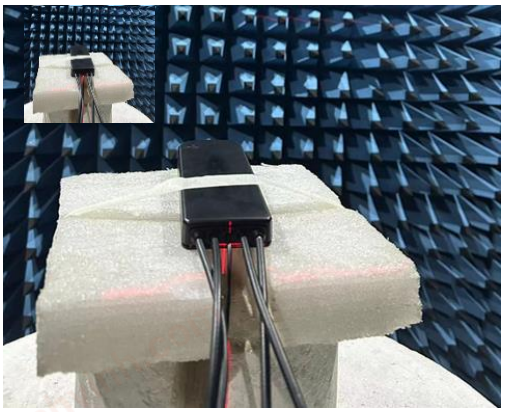


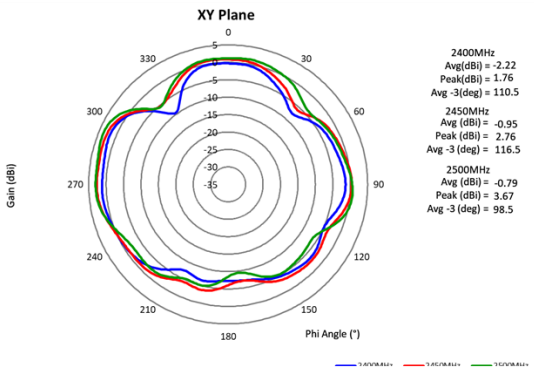
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

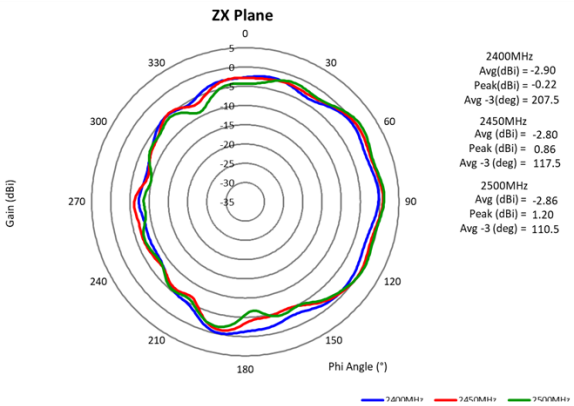
Pulse a YAGEO company

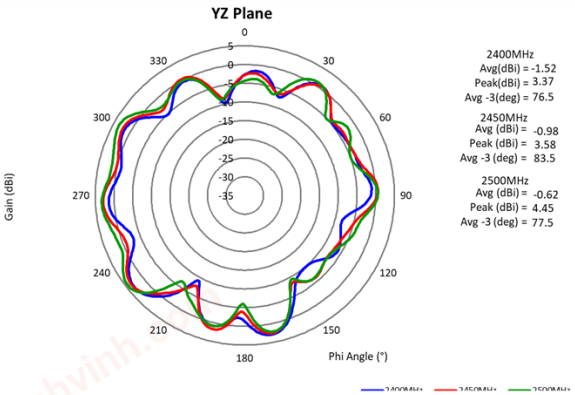
Charts

Test data
WIFI-2 Antennas









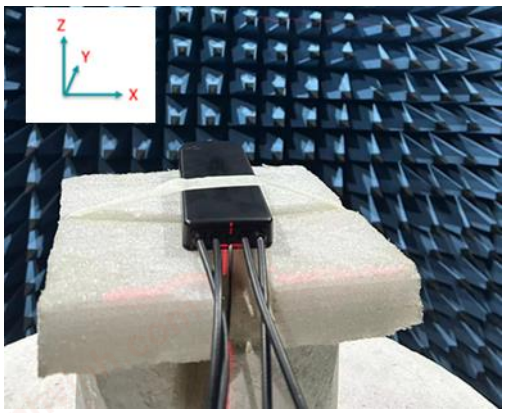
Candy Bar
5G-NR / GNSS / WiFi 6E/7 Vehicular Multiband Antenna

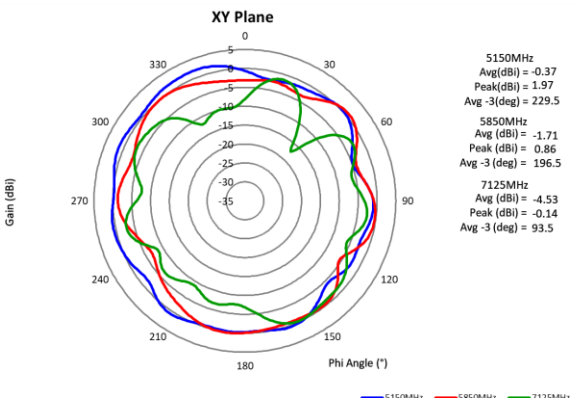
CDB52211AM, 617-7125 / 1560-1610MHz / 2400-7125MHz

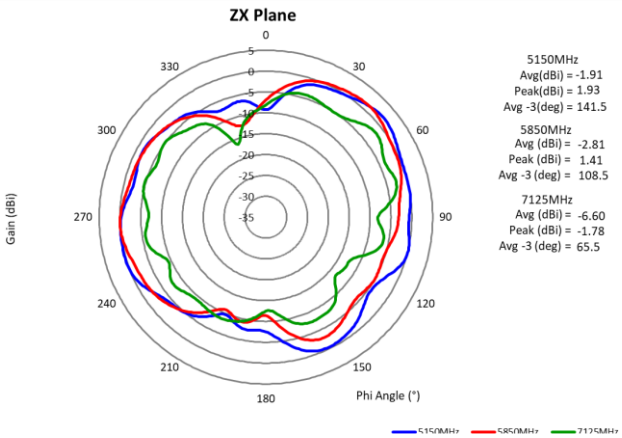
Pulse a YAGEO company

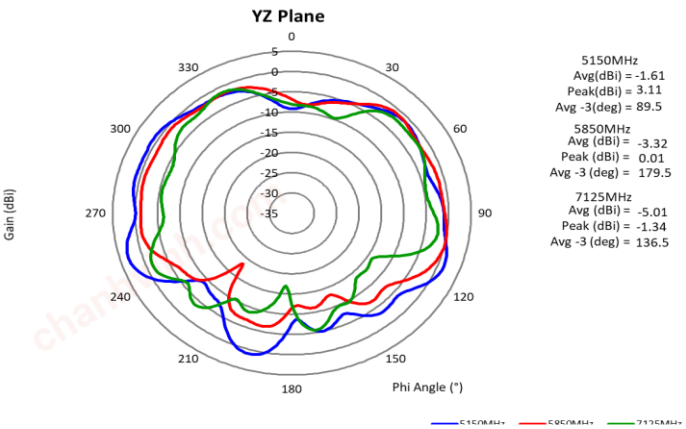
Charts

Test data
WIFI-2 Antennas









chanhvinh.com

Packing

CDB52211AM

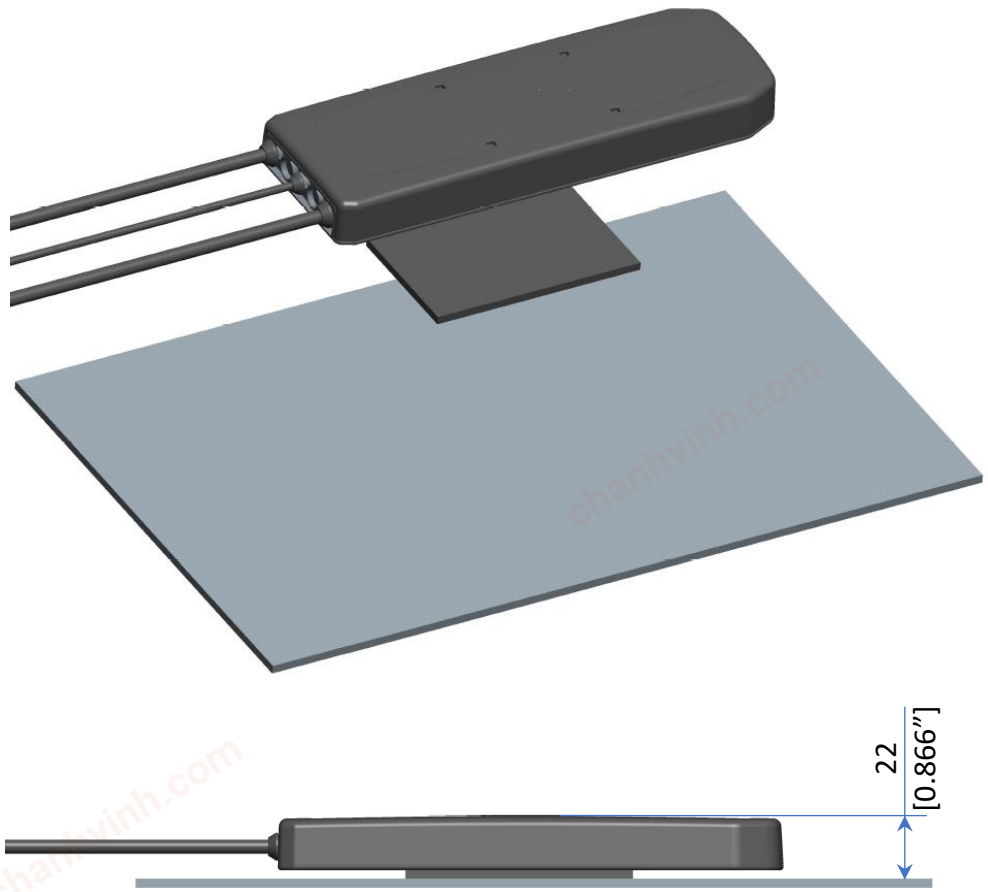
TBD

Assembly

CDB52211AM

Option 1
Tap 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).



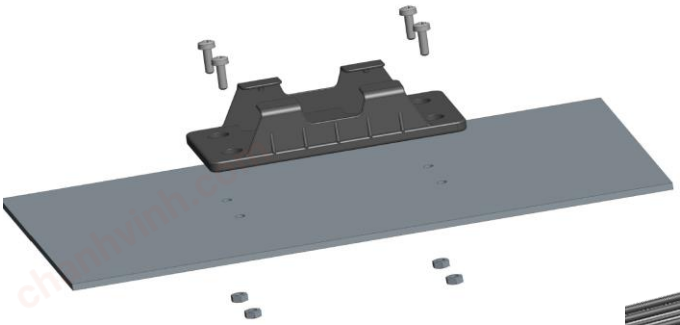
chanhvinh.com

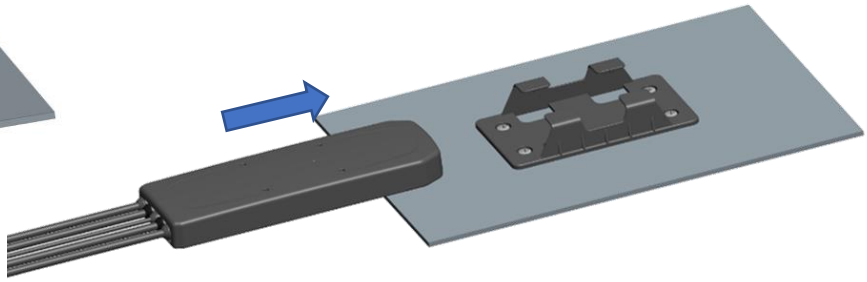
Assembly

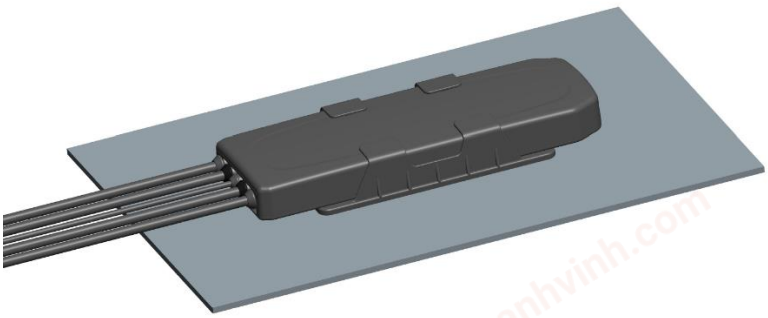
CDB52211AM

Option 2
Plastic Bracket Mount

Firstly, fix the bracket on the customer side with 4pcs M4 screws and 4pcs M4 nuts;
Then push the antenna into the plastic bracket.







For More Information:
Americas - antennas.us@pulseelectronics.com | Europe – antennas.eu@pulseelectronics.com | Asia – antennas.as@pulseelectronics.com | Questions? +1-800-ANTENNA
Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright , 2020. Pulse Electronics, Inc. All rights reserved.
Company address: Pulse Electronics, a YAGEO Company, 15255 Innovation Drive, Suite #100, San Diego, CA 92128

'YAGEO Corporation and its affiliates do not recommend the use of commercial, automotive, and/or COTS grade products for high reliability applications or manned space flight.'