PulseLARSEN Antennas

TECHNICAL DATA SHEET

Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

Features:

- Low profile, only 1.8” tall
- Up to 6-lead Configuration
  - LTE(2x) MIMO
  - WiFi(3x) MIMO-|2.4/5.x GHz
  - GPS/GNSS (1x)
- Frequency of Operation:
  - 698-960MHz,1710-2690MHz
  - 2400-2500MHz,5150-5925MHz
  - 1559-1606MHz

Applications:

- Telematics, Navigation
- First Responders(Police, Fire, Ambulance/EMS)
- Energy, Utility, Construction
- Fleet Management
- DSRC(Dedicated Short Range Communications)
- Available Configurations:
  - Black, White
  - Magnetic mount
  - For direct mount seep/N: ARMXXXXXDM

RoHS COMPLIANT

Issue: 1842

For more information:

Pulse Worldwide Headquarters
15255 Innovation Drive #100
San Diego, CA 92128
USA
Tel:1-858-674-8100

Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
USA
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Herrenberg, Germany
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998

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This document covers all product variants of the following product family

Product	Total Cable Leads	LTE Cable Leads	WiFi Cable Leads	GPS Cable Leads	Housing Color	Mounting
ARM62311MM	6	2	3	1	Black	Magnetic Mount; Pull force: 100N, 22lbf min. (Tested on 3mm thick steel plate.)
ARM62312MM	6	2	3	1	White	
ARM52211MM	5	2	2	1	Black	
ARM52212MM	5	2	2	1	White	
ARM42111MM	4	2	1	1	Black	
ARM42112MM	4	2	1	1	White	

Product Numbering

Vehicular Multiband Antenna with Direct Mount

(Part Number) ARM X X X X X MM

(1) (2) (3) (4) (5) (6) (7)

(1)	Product ID: ARMADILLO
(2)	Total Number of Cable leads
(3)	Total Number of LTE Cable Leads
(4)	Total Number of WiFi Cable Leads
(5)	Total Number of GPS Cable Leads
(6)	The Color of the Plastic Housing 1=Black; 2= White
(7)	Mounting: Magnetic Mount

ARMXXXXXMM		CABLE	CABLE LENGTH	CONNECTOR
1	LTE-1 Cable Assy	LMR-195 *	5181 mm / 204" / 17 FT	SMA Male
2	WiFi-1 Cable Assy			RP-SMA Male
3	WiFi-3 Cable Assy			RP-SMA Male
4	WiFi-2 Cable Assy			RP-SMA Male
5	GPS Cable Assy	LMR-100 *		SMA Male
6	LTE-2 Cable Assy	LMR-195 *		SMA Male

* or equivalent

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PART NUMBER: ARMXXXXXMM

ELECTRICAL SPECIFICATIONS

Frequency	698-960MHz, 1710-2690MHz 2400-2500MHz, 5150-5925MHz
Nominal Impedance	50 Ω
VSWR*	
698-960MHz	<2.5
1710-2690MHz	<2.5
2400-2500MHz	<2.5
5150-5925MHz	<2.5
Isolation*	
698-960MHz, 1710-2690MHz	-8dB
2400-2500MHz, 5150-5925MHz	-12dB
Radiation Pattern	Omni
Average Peak Gain**	
698-960MHz	4.6dBi
1710-2690MHz	5dBi
2400-2500MHz	4.1dBi
5150-5925MHz	6.3dBi
Polarization	Vertical

*Test on 500mm ground plane with 17ft(5.2m) LMR195 cable
**Test on 500mm ground plane with 1ft(304.8) LMR195 cable

Issue: 1842

RoHS COMPLIANT

PulseLARSEN Antennas

TECHNICAL DATA SHEET

Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

ELECTRICAL SPECIFICATIONS

GPS Antenna	
Frequency	1561.098±2.046MHz/ 1575.42±1.023MHz/ 1602.5625±4MHz
Nominal Impedance	50 Ω
VSWR	<2
Gain (Radiating Element)	1 dBic±1 dB
Gain (LNA Gain)	30 dB± 2 dB
Polarization	RHCP
Out of Band Rejection	
698 MHz	>70 dB
960 MHz	>65 dB
1710 MHz	>60 dB
2170 MHz	>65 dB
2400 MHz	>65 dB
2700 MHz	>65 dB
Noise Figure	<2.4 dB
Operating Voltage	3.3 – 5 Vdc
Current Consumption	<15mA

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MECHANICAL SPECIFICATIONS

Overall Length	202.3mm X 88.5mm X 45mm
Weight	1.1 Kg
Antenna Color / Material	Black or White
Connector type	Refer to Page 2
Cable type	Refer to Page 2
Cable length	Refer to Page 2

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 ~ +85° C
Storage Temperature	-40 ~ +85° C
Ingress Protection	IP67
RoHS Compliant	Yes

OTHER SPECIFICATIONS

Total cable assembly loss for 5.2m (17') LMR-195 @850MHz	2.1dB
Total cable assembly loss for 5.2m (17') LMR-100 @1575MHz	5.9dB
Total cable assembly loss for 5.2m (17') LMR-195 @1930MHz	3.2dB
Total cable assembly loss for 5.2m (17') LMR-195 @2450MHz	3.6dB
Total cable assembly loss for 5.2m (17') LMR-195 @2500MHz	3.7dB
Total cable assembly loss for 5.2m (17') LMR-195 @5350MHz	5.5dB

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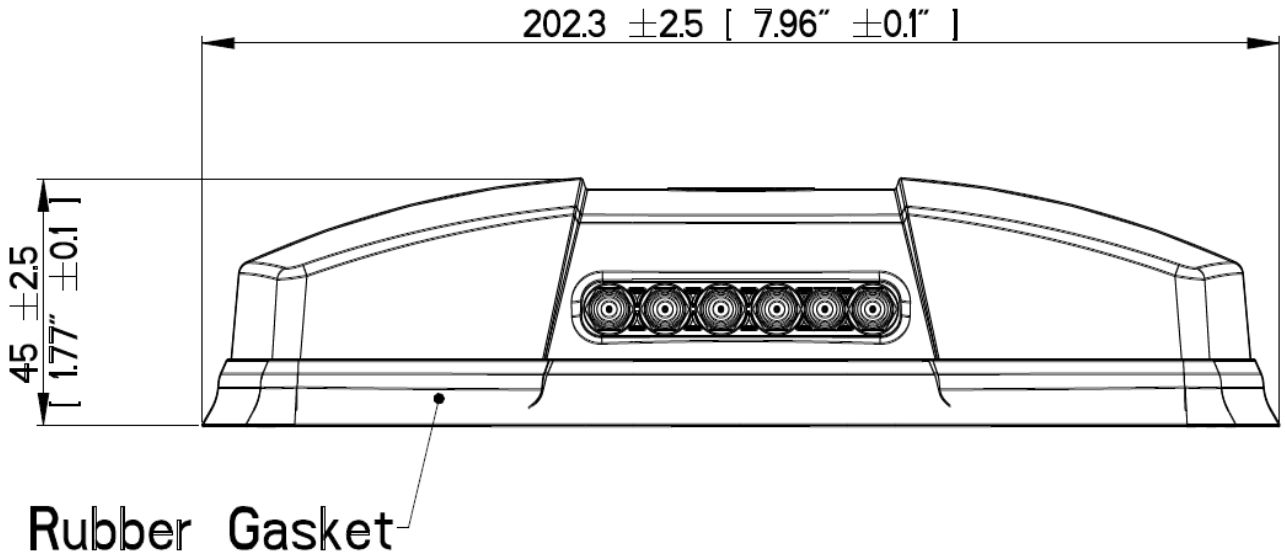
TECHNICAL DATA SHEET

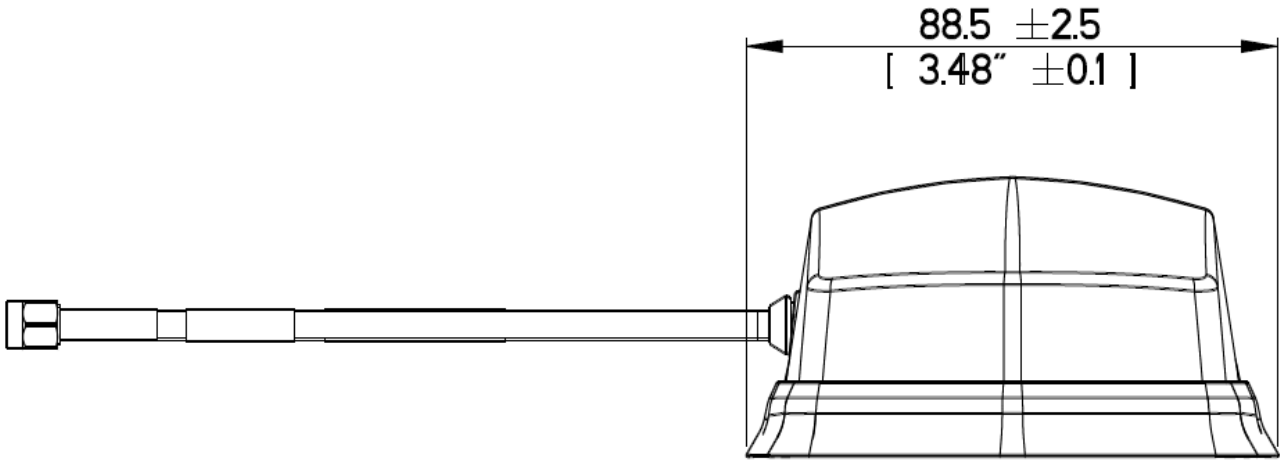
Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

MECHANICAL DRAWING





RoHS COMPLIANT

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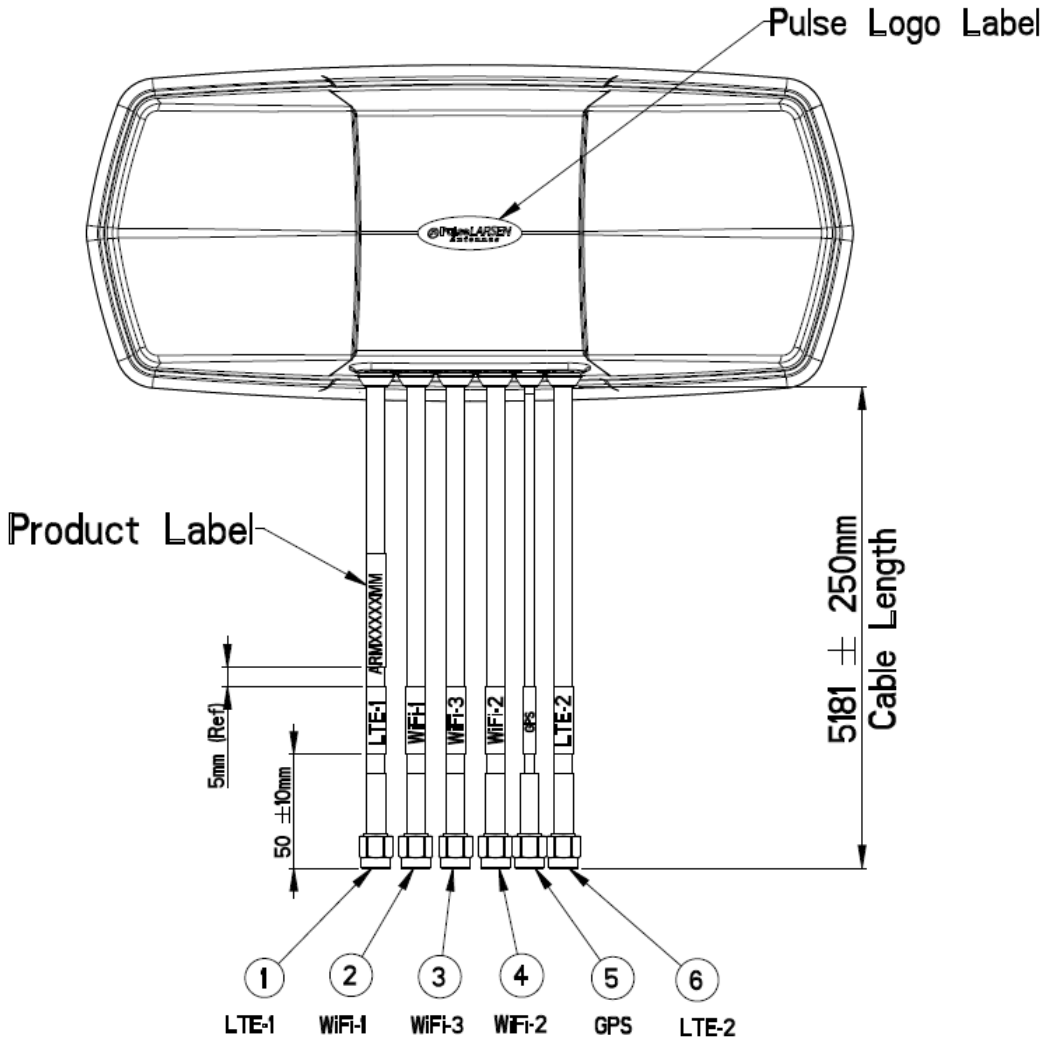
MECHANICAL DRAWING



ARMXXXXXMM		CABLE	CABLE LENGTH	CONNECTOR
1	LTE-1 Cable Assy	LMR-195 *	5181 mm / 204" / 17 FT	SMA Male
2	WiFi-1 Cable Assy			RP-SMA Male
3	WiFi-3 Cable Assy			RP-SMA Male
4	WiFi-2 Cable Assy			RP-SMA Male
5	GPS Cable Assy	LMR-100 *		SMA Male
6	LTE-2 Cable Assy	LMR-195 *		SMA Male

* or equivalent

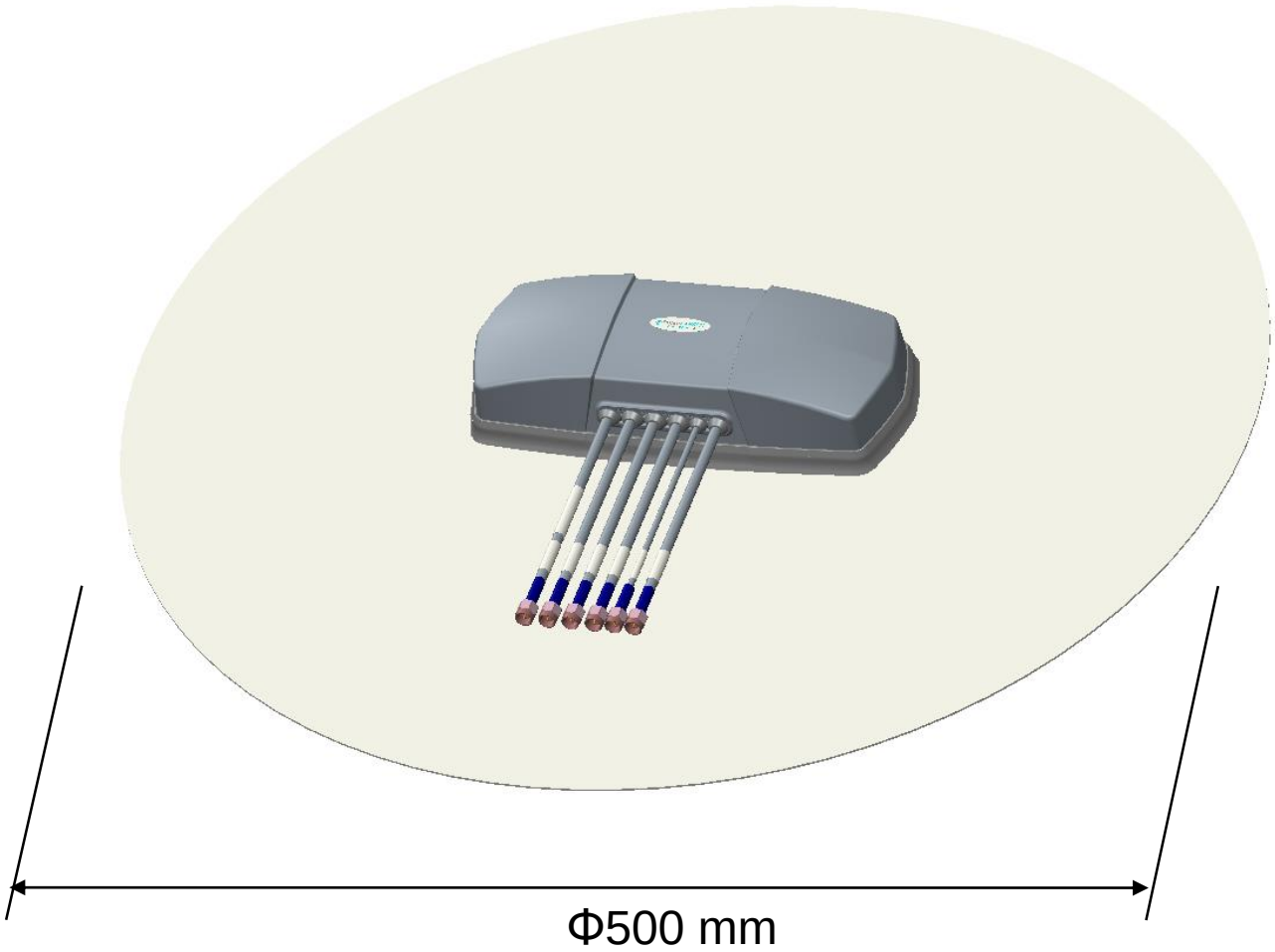
Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

TEST SETUP

Antenna tested on a Φ500mm ground plane.



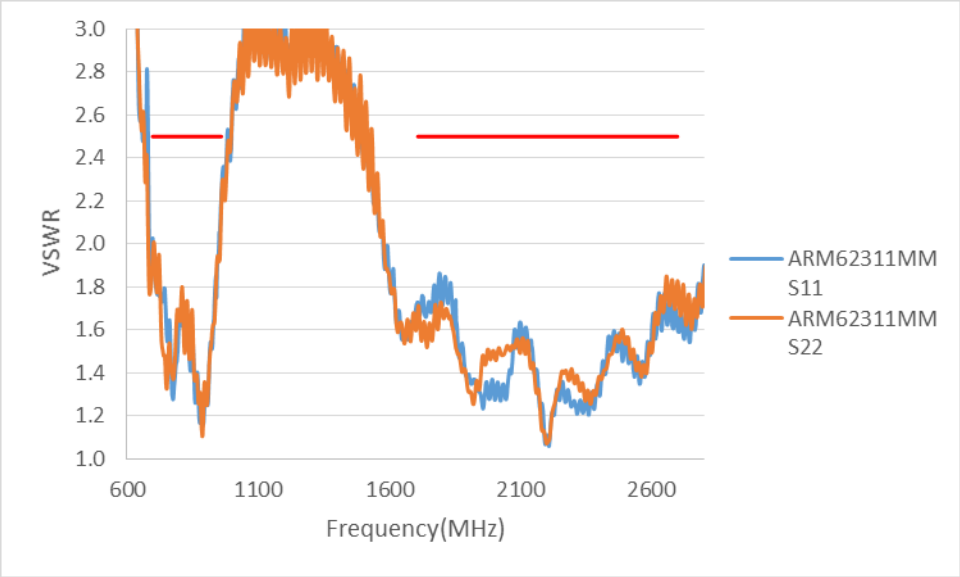
Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

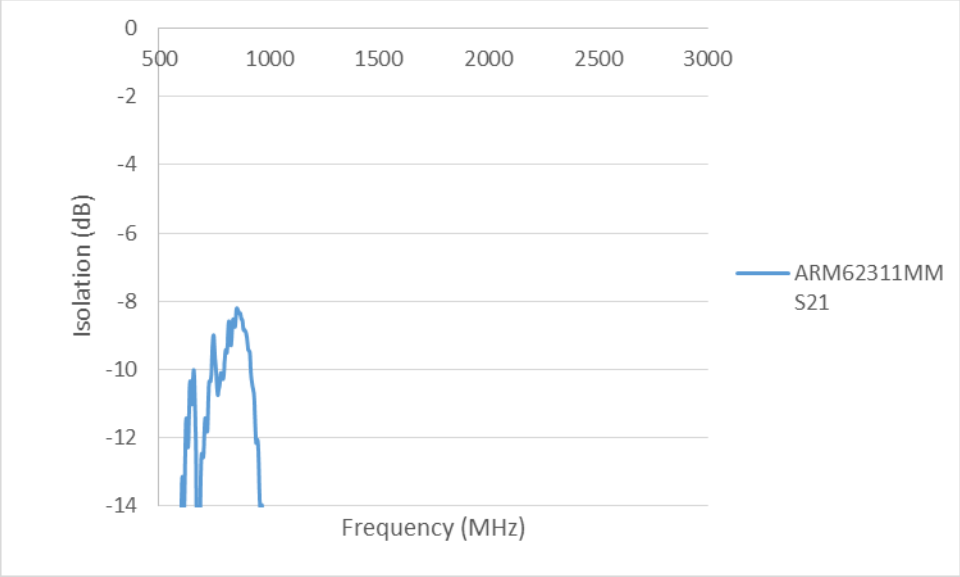
PART NUMBER: ARMXXXXXMM

CHARTS

VSWR (LTE)



Isolation (LTE)



Note : Antenna tested with 5m cable on 500mm (dia) ground plane

RoHS COMPLIANT

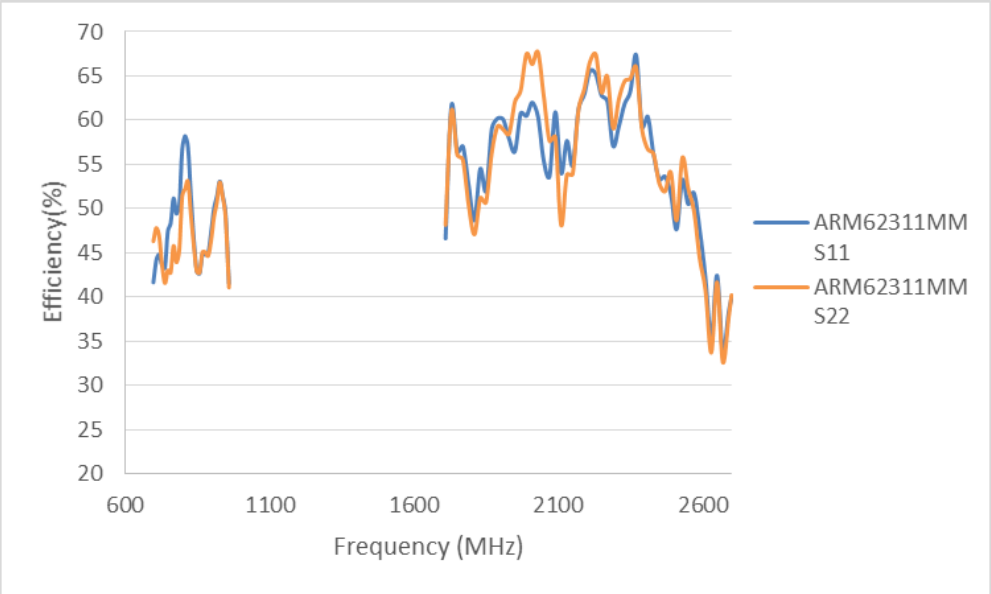
Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

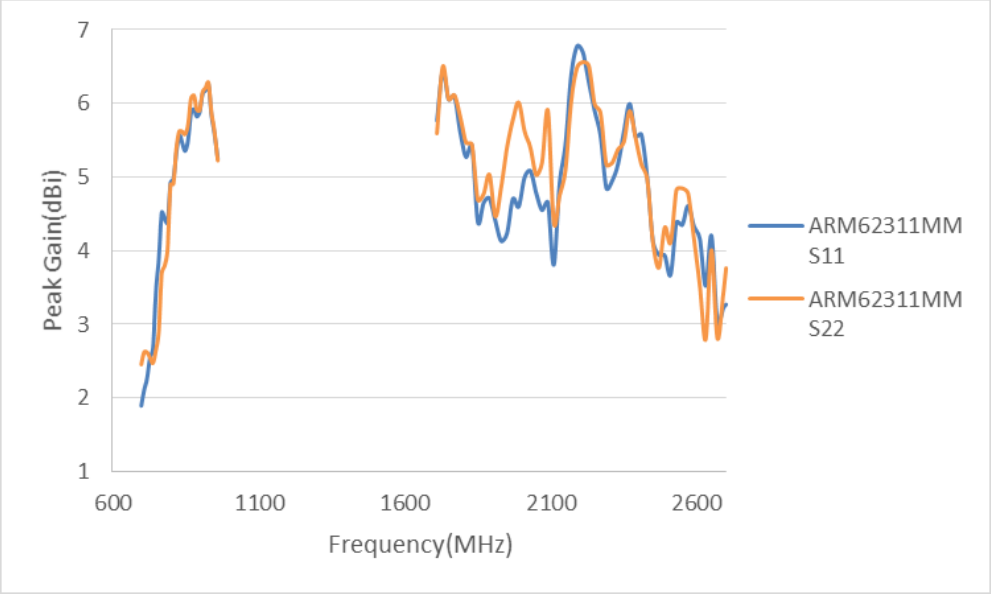
PART NUMBER: ARMXXXXXMM

CHARTS

Radiation Efficiency (LTE)



Peak Gain (LTE)



Note : Antenna tested with 1ft(304.8mm) cable on 500mm (dia) ground plane

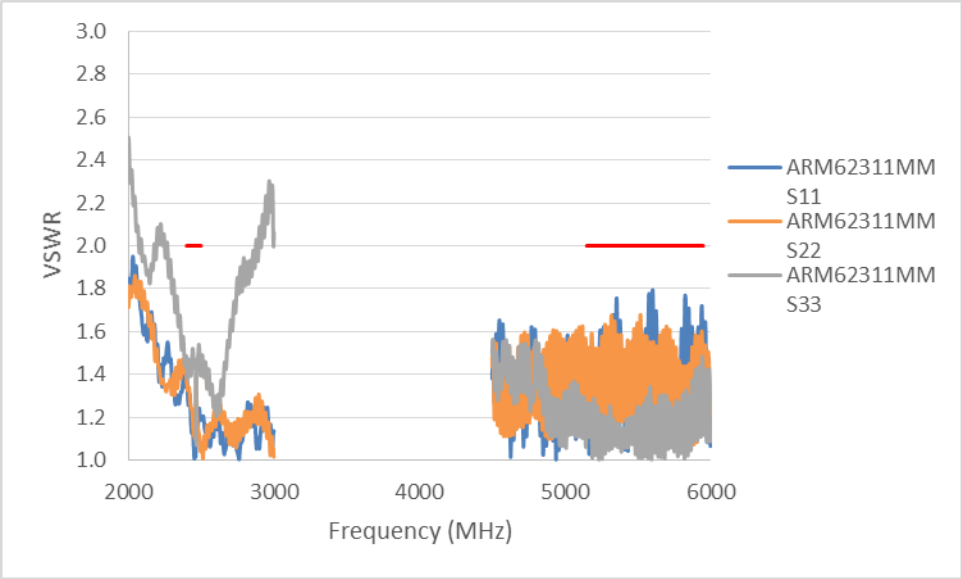
Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

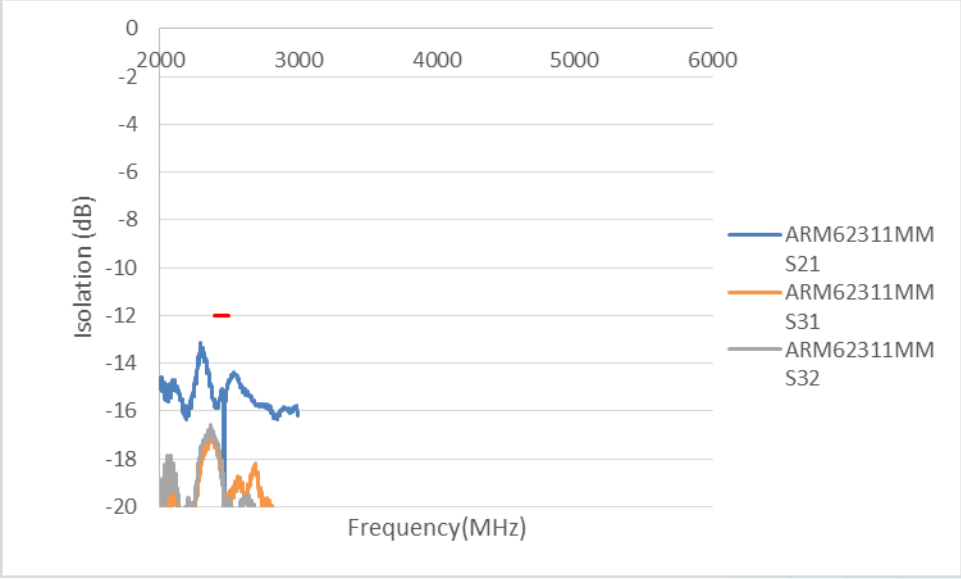
PART NUMBER: ARMXXXXXMM

CHARTS

VSWR (WIFI)



Isolation (WIFI)



Note : Antenna tested with 5m cable on 500mm (dia) ground plane

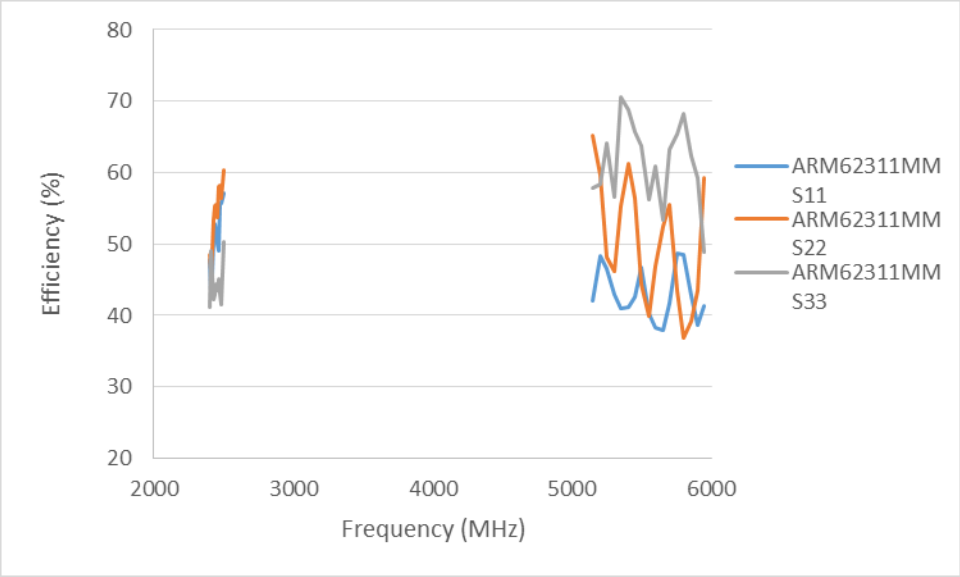
Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

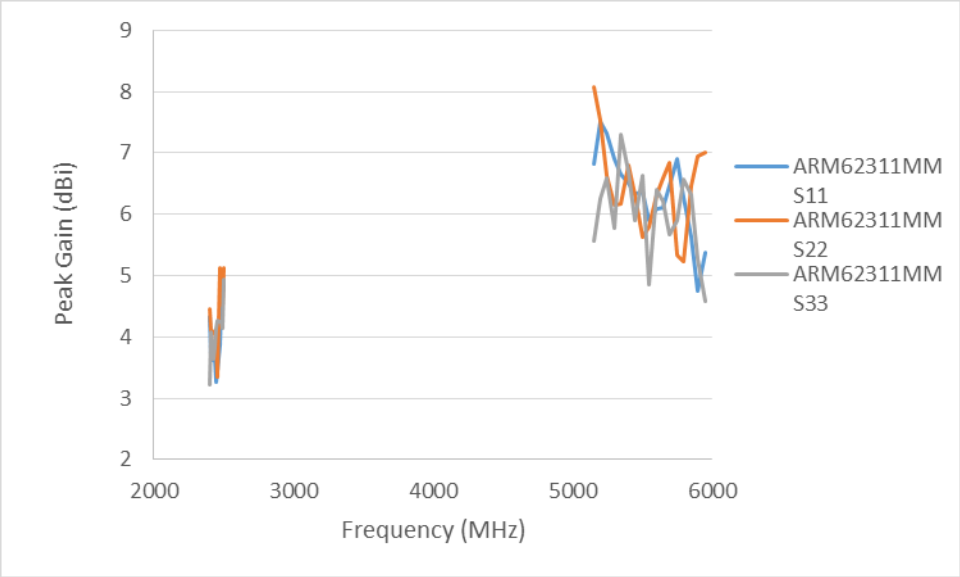
PART NUMBER: ARMXXXXXMM

CHARTS

Radiation Efficiency (WIFI)



Peak Gain (WIFI)



Note : Antenna tested with 1ft(304.8mm) cable on 500mm (dia) ground plane

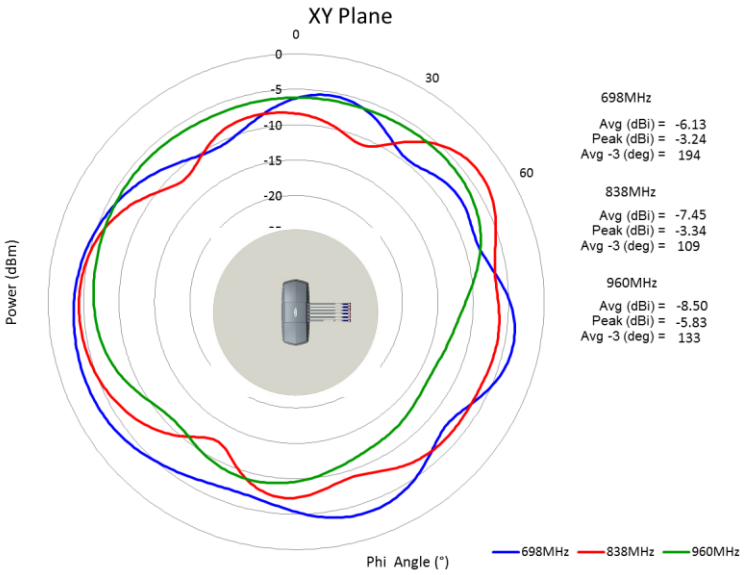
RoHS COMPLIANT

Series: ARMADILLO

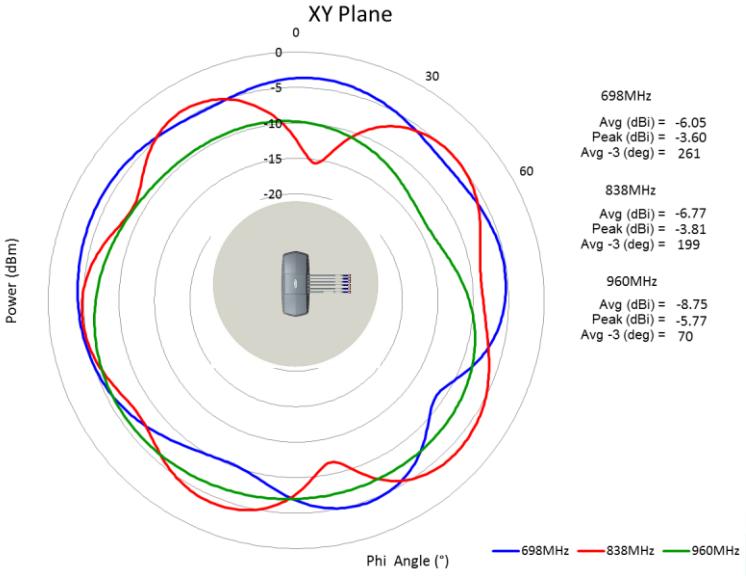
Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

CHARTS



LTE1 XY plane radiation pattern



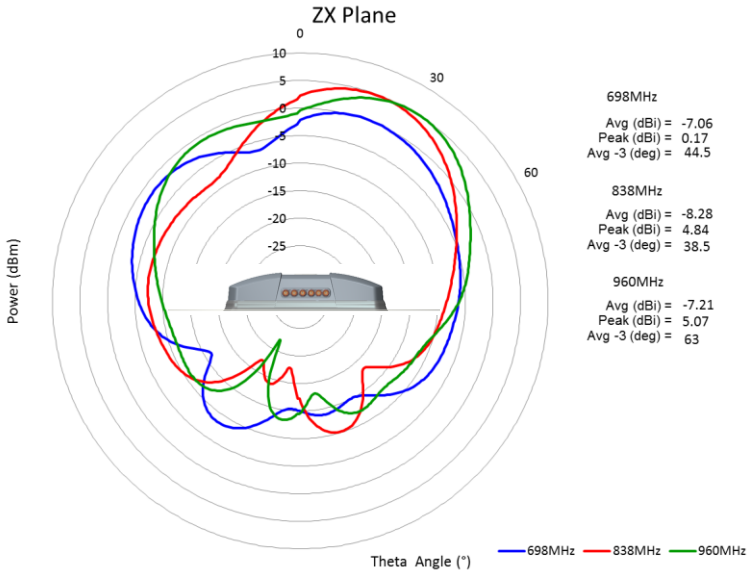
LTE2 XY plane radiation pattern

Series: ARMADILLO

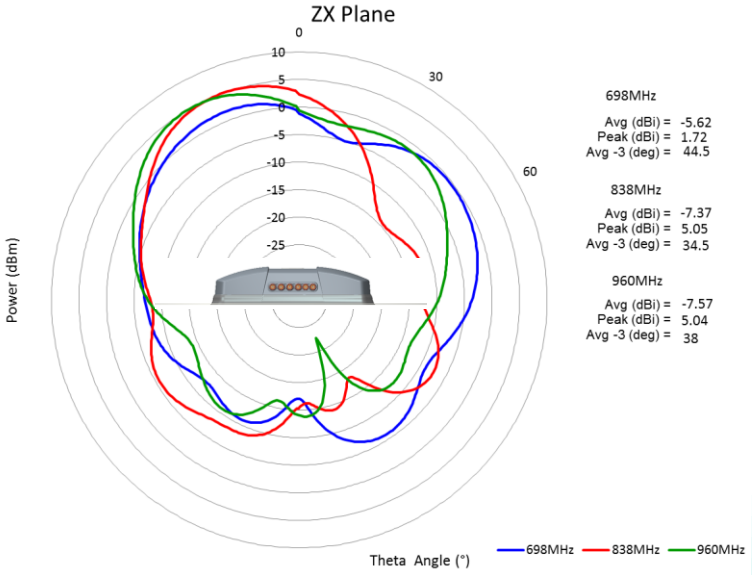
Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

CHARTS



LTE1 ZX plane radiation pattern



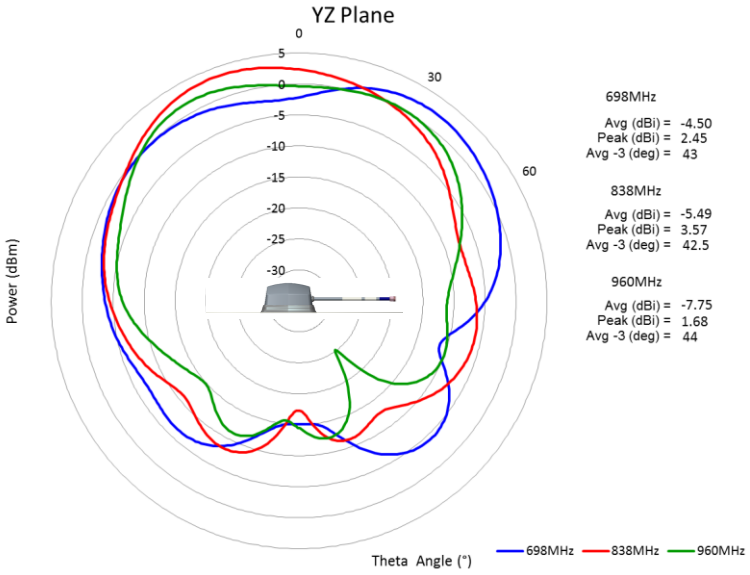
LTE2 ZX plane radiation pattern

Series: ARMADILLO

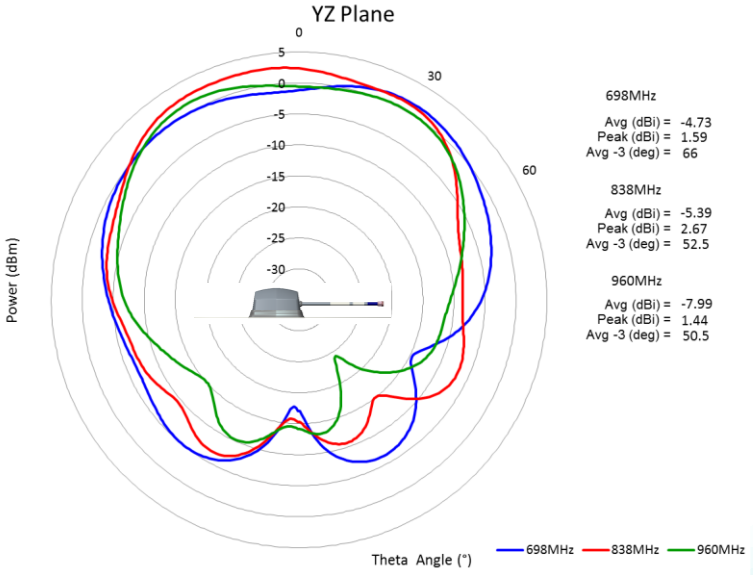
Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

CHARTS



LTE1 YZ plane radiation pattern



LTE2 YZ plane radiation pattern

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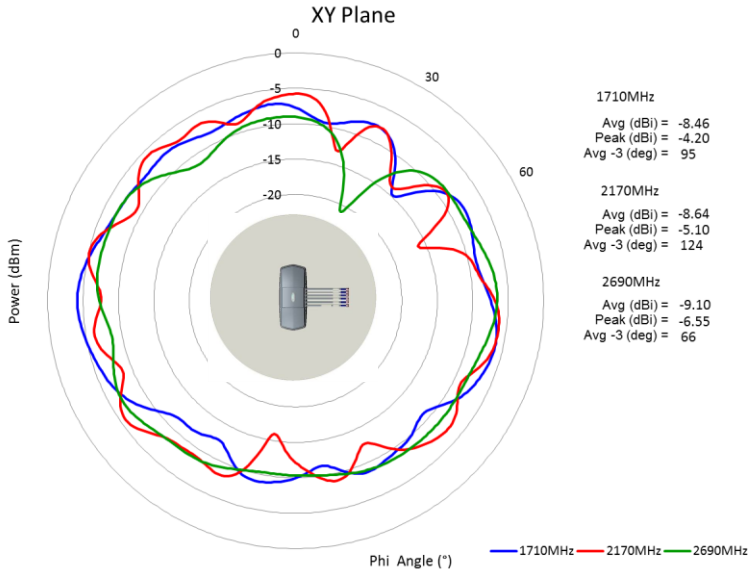
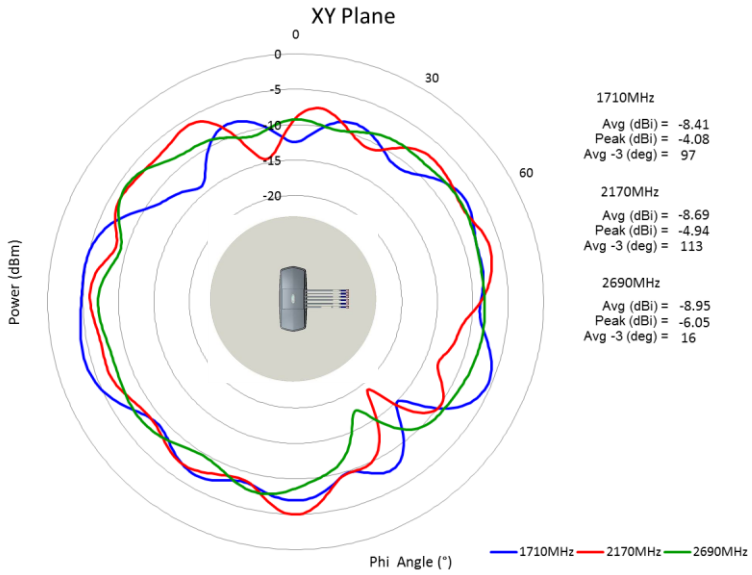
PART NUMBER: ARMXXXXXMM

CHARTS



LTE1 XY plane radiation pattern



LTE2 XY plane radiation pattern

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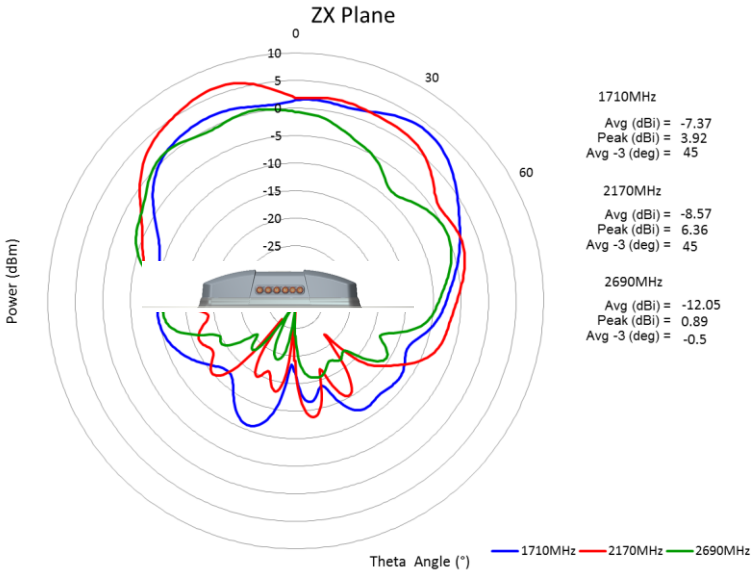
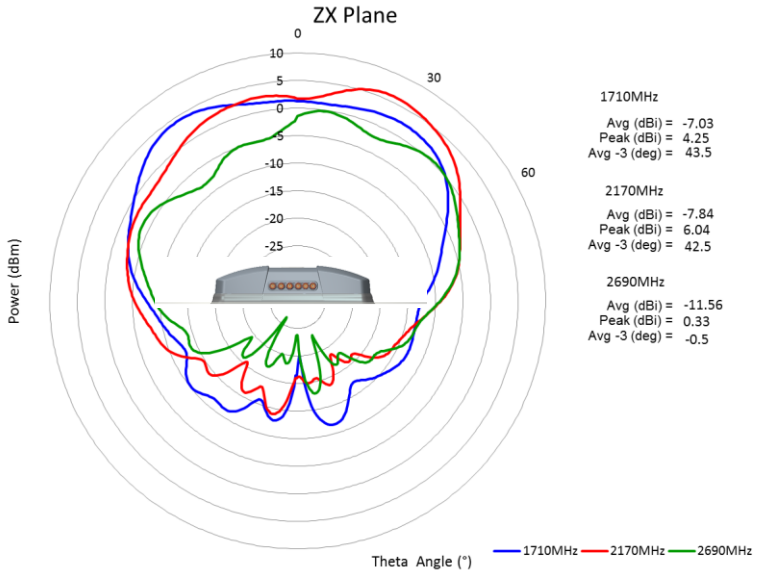
CHARTS



LTE1 ZX plane radiation pattern



LTE2 ZX plane radiation pattern

Series: ARMADILLO

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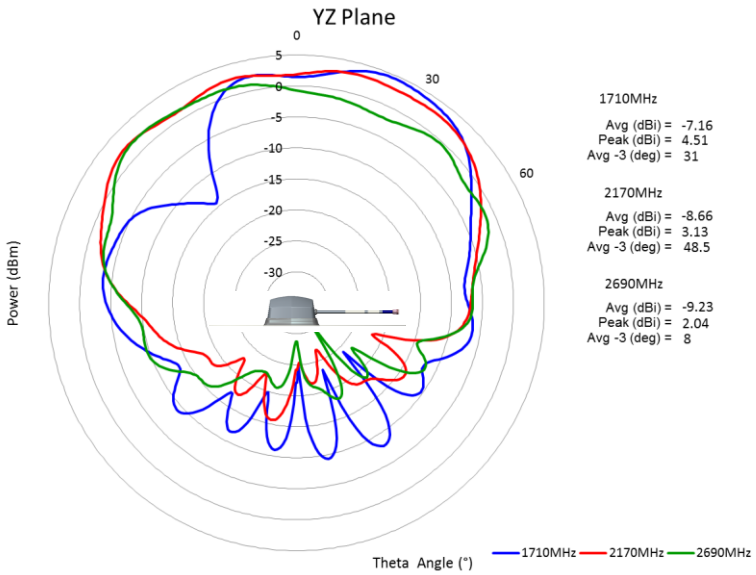
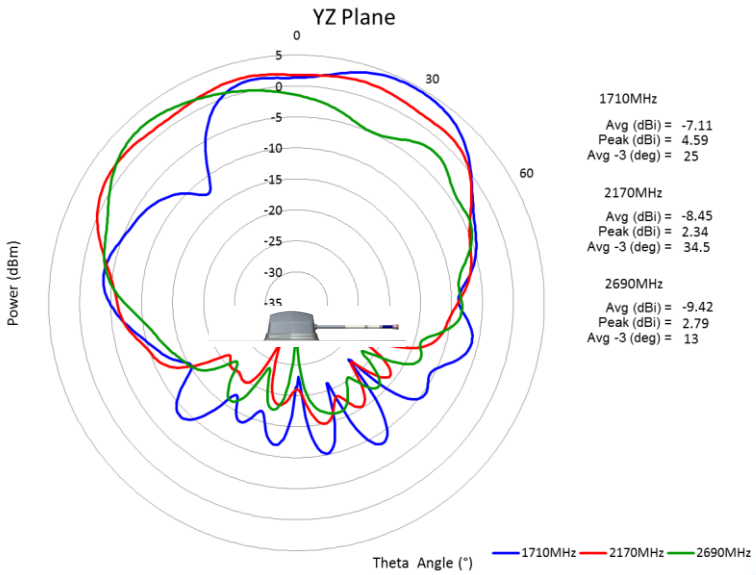
CHARTS



LTE1 YZ plane radiation pattern



LTE2 YZ plane radiation pattern

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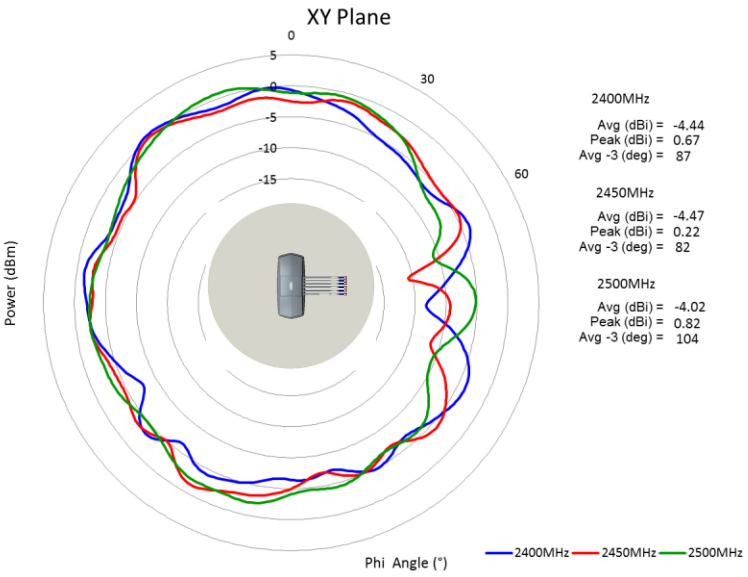
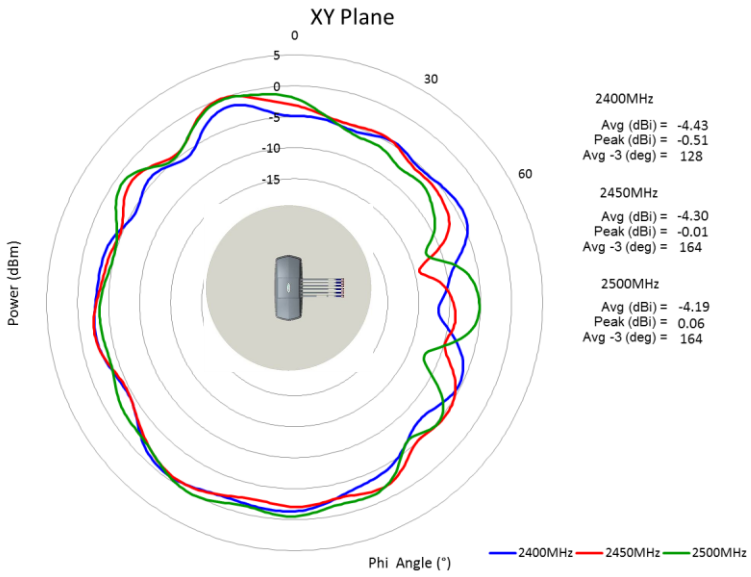
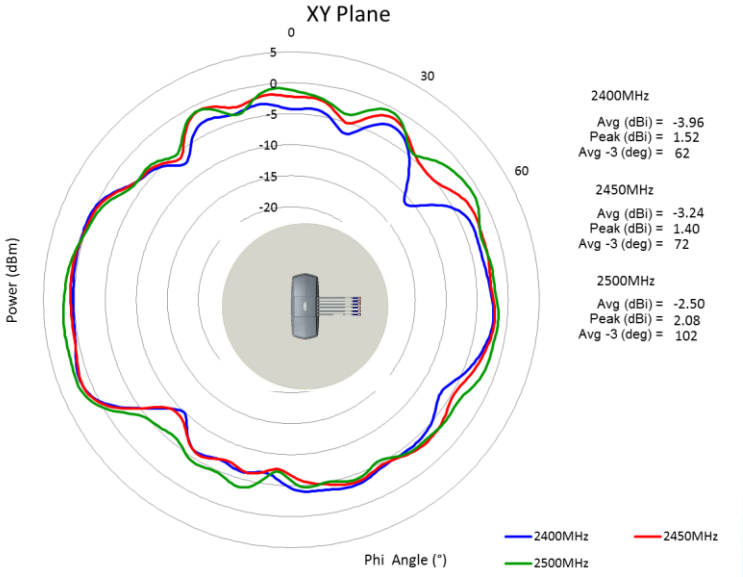
CHARTS



WiFi1 XY plane radiation pattern



WiFi2 XY plane radiation pattern



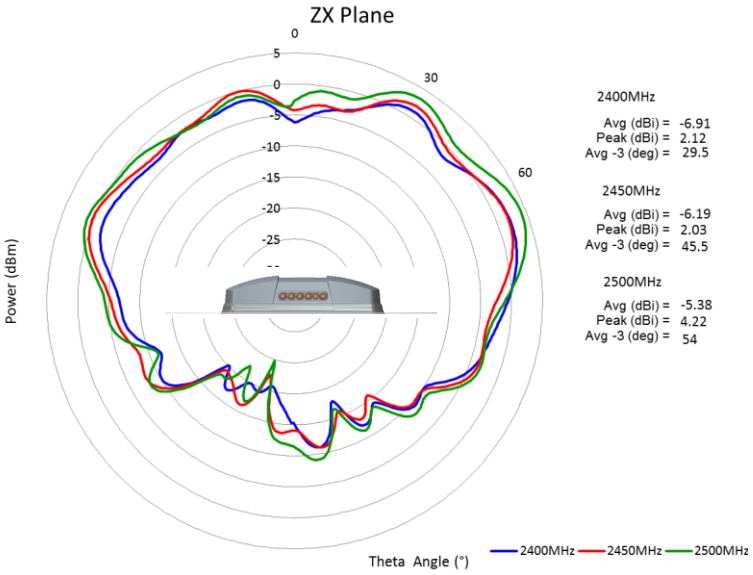
WiFi3 XY plane radiation pattern

Series: ARMADILLO

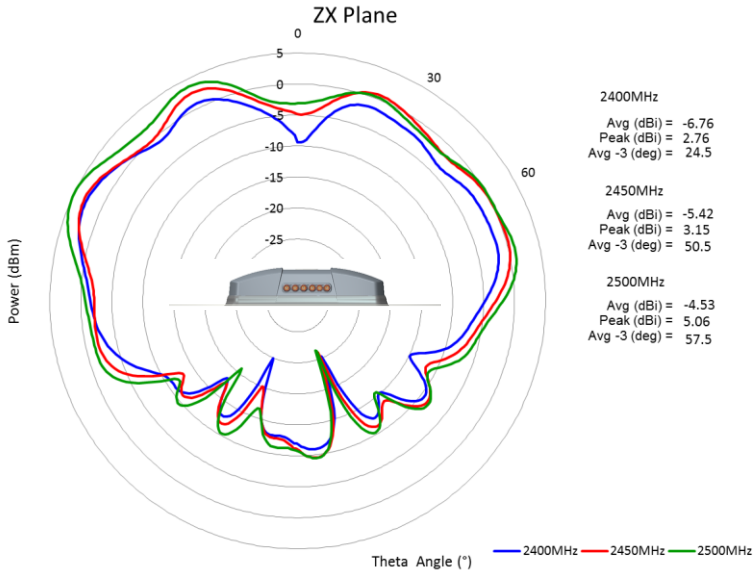
Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

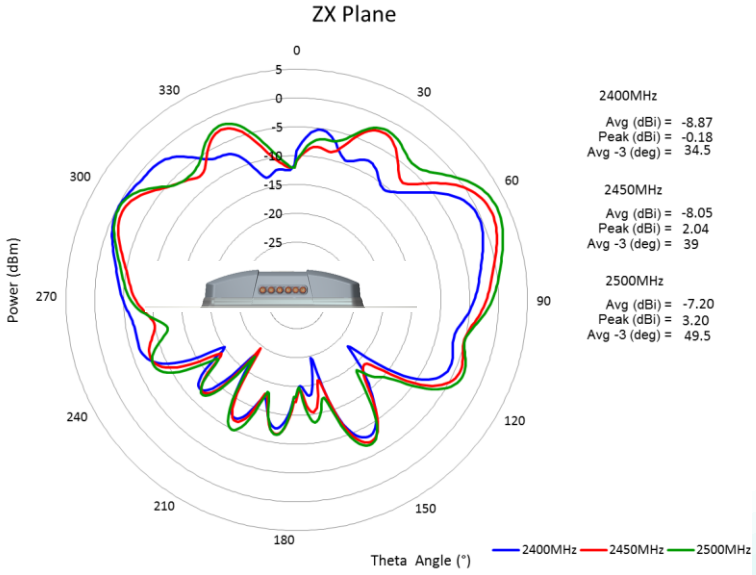
CHARTS



WiFi1 ZX plane radiation pattern



WiFi2 ZX plane radiation pattern



WiFi3 ZX plane radiation pattern

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Description: Vehicular Multiband Antenna with Magnetic Mount

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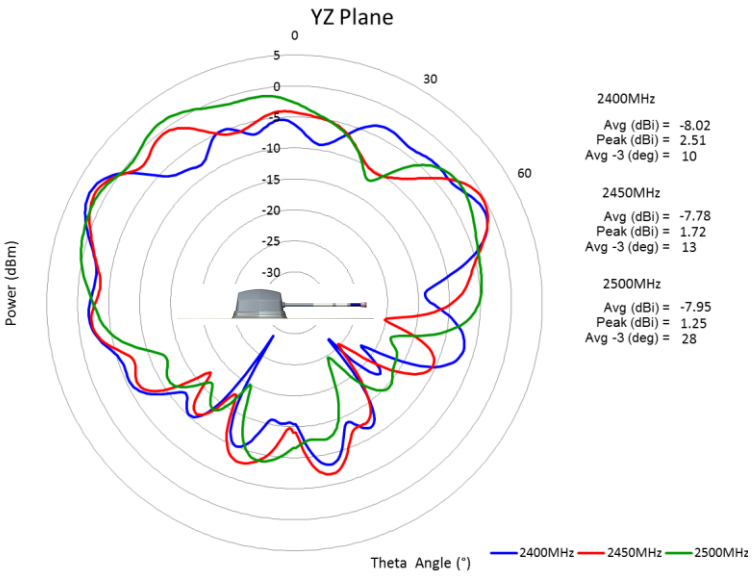
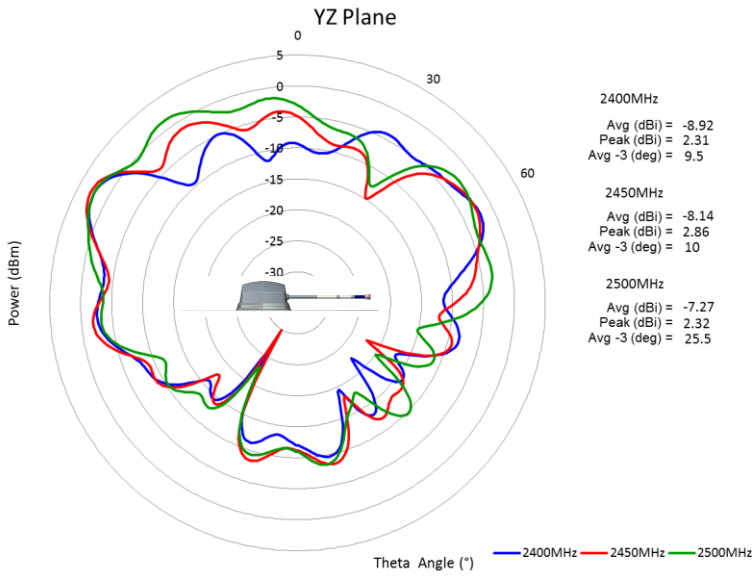
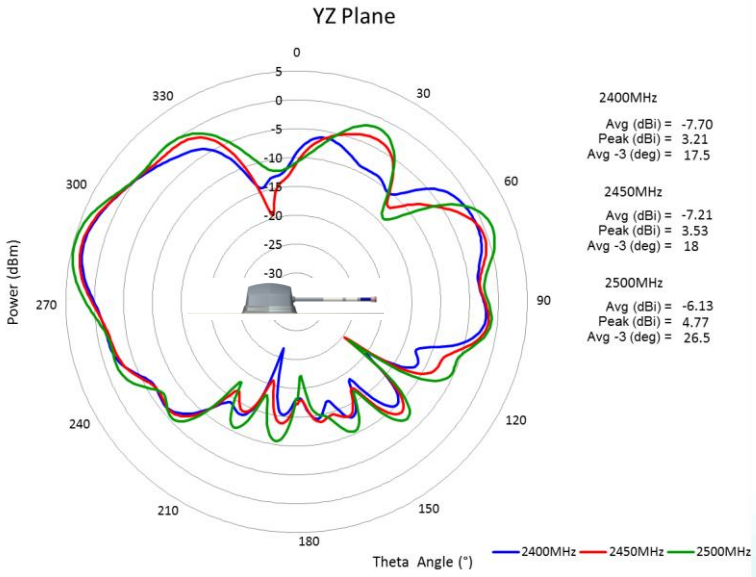
CHARTS



WiFi1 YZ plane radiation pattern



WiFi2 YZ plane radiation pattern



WiFi3 YZ plane radiation pattern

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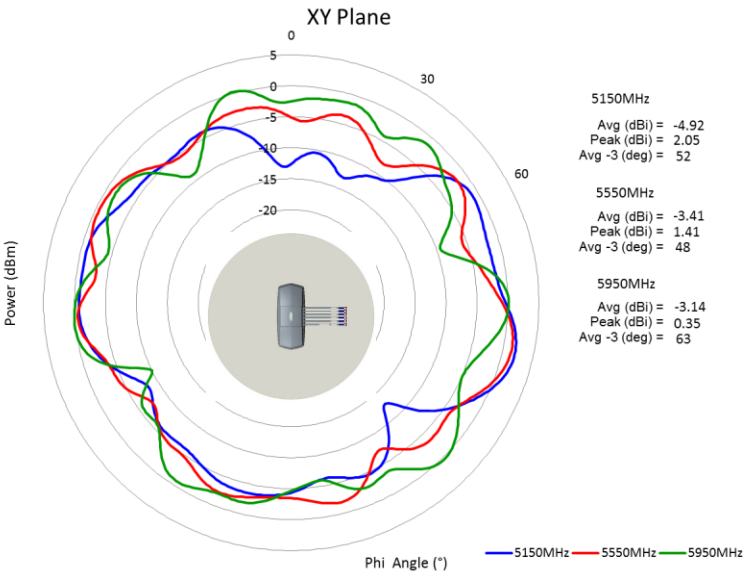
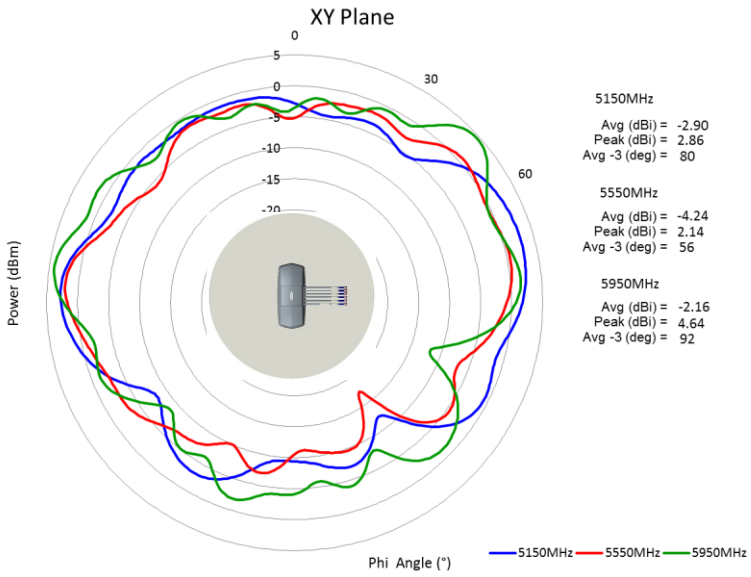
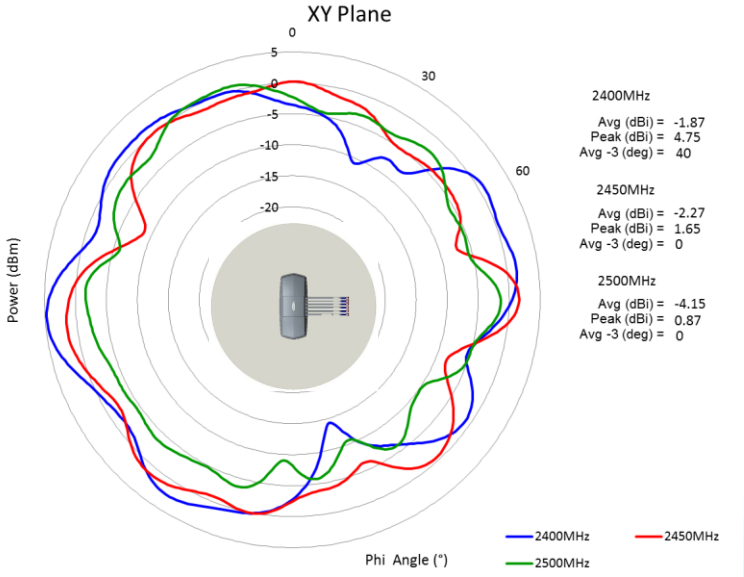
CHARTS



WiFi1 XY plane radiation pattern



WiFi2 XY plane radiation pattern



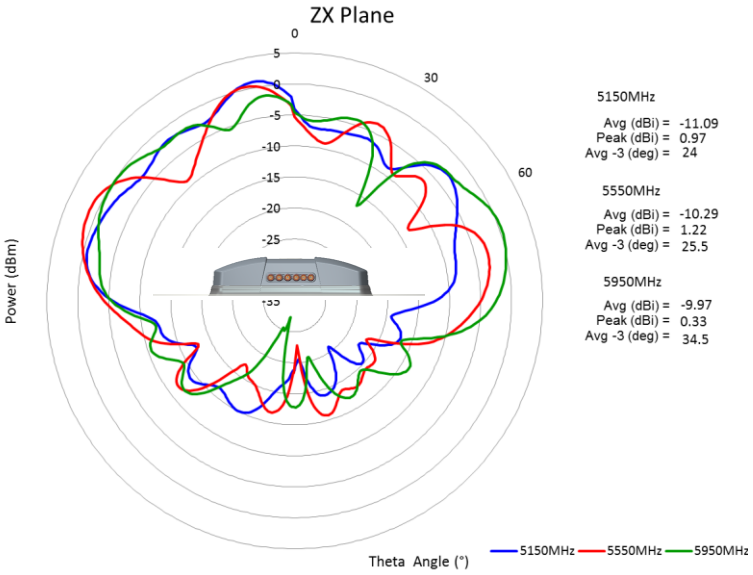
WiFi3 XY plane radiation pattern

Series: ARMADILLO

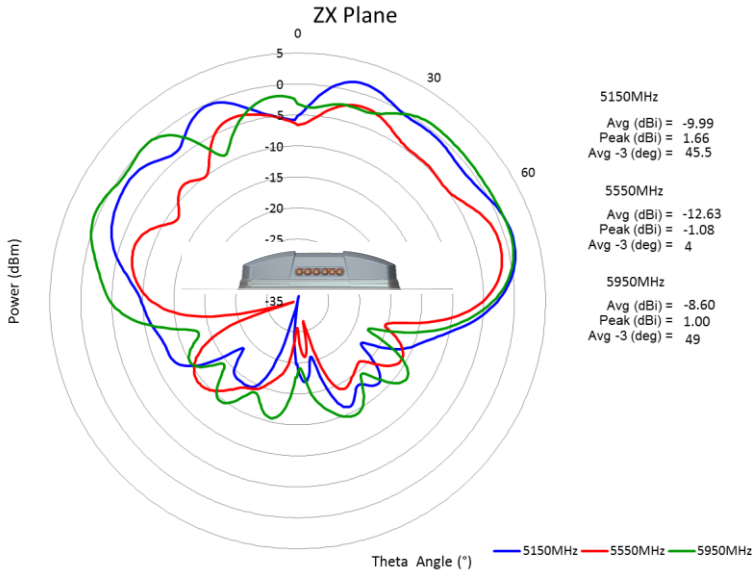
Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

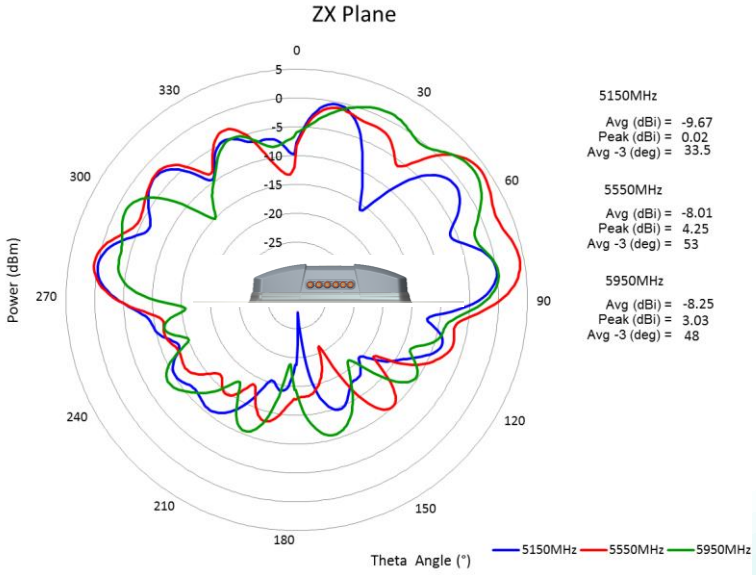
CHARTS



WiFi1 ZX plane radiation pattern



WiFi2 ZX plane radiation pattern



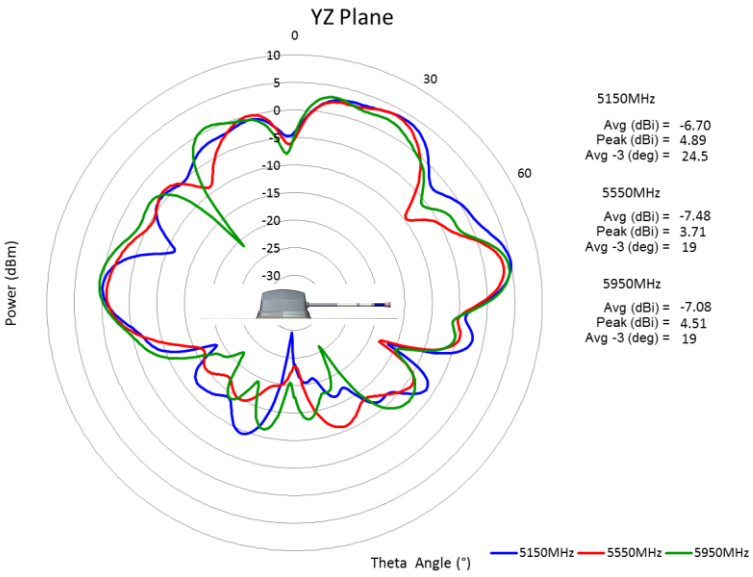
WiFi3 ZX plane radiation pattern

Series: ARMADILLO

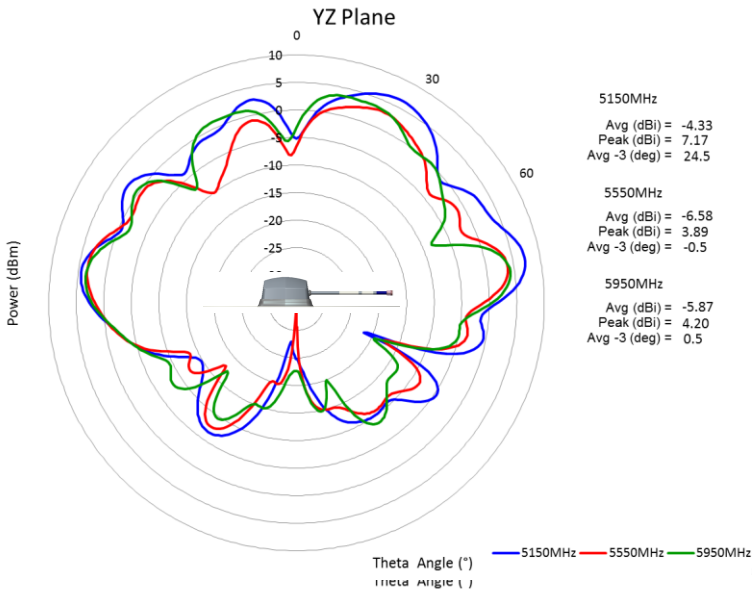
Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

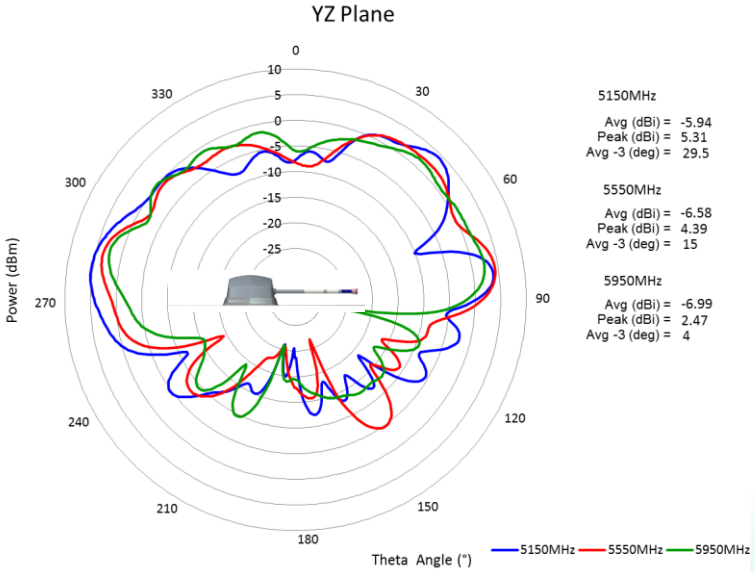
CHARTS



WiFi1 YZ plane radiation pattern



WiFi2 YZ plane radiation pattern



WiFi3 YZ plane radiation pattern

Series: ARMADILLO

Description: Vehicular Multiband Antenna with Magnetic Mount

PART NUMBER: ARMXXXXXMM

PACKAGING

Each antennas packed in Bubble Bag

6 bags of antennas (Total 6pcs) packed in a cardboard box

1 label on each box with quantity, part number, date code.

RoHS COMPLIANT

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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