

### **TECHNICAL DATA SHEET**

**Description**: Vehicular Multiband Antenna with

**Direct Mount** 

PART NUMBER: ARMXXXXXDM





### 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
  - Direct, Magnetic, Adhes.Mount

Issue: 2034

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Pulse Worldwide Headquarters 15255 Innovation Drive #100 San Diego, CA 92128 USA Tel:1-858-674-8100 Pulse/Larsen Antennas 18110 SE 34<sup>th</sup> St Bldg 2 Suite 250 Vancouver, WA 98683 USA Europe Headquarters
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Pulse (Suzhou) Wireless Products Co, Inc. 99 Huo Ju Road(#29 Bldg,4<sup>th</sup> Phase Suzhou New District Jiangsu Province, Suzhou 215009 PR China Tel: 86 512 6807 9998 1



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**Description**: Vehicular Multiband Antenna with

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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	Cable Length	Mounting	
ARM62311DM	6	2 (with SMA Male)	3 (with RP-SMA Male)	1 (with SMA Male)	Black			
ARM62312DM	6	2 (with SMA Male)	3 (with RP-SMA Male)	1 (with SMA Male)	White			
ARM52211DM	5	2 (with SMA Male)	2 (with RP-SMA Male)	1 (with SMA Male)	Black			
ARM52212DM	5	2 (with SMA Male)	2 (with RP-SMA Male)	1 (with SMA Male)	White	17 FT or 5181mm		
ARM42111DM	4	2 (with SMA Male)	1 (with RP-SMA Male)	1 (with SMA Male)	Black			
ARM42112DM	4	2 (with SMA Male)	1 (with RP-SMA Male)	1 (with SMA Male)	White		1. Direct Mount; 7/8" Hole Required 2. Mounting Surface thickness < 0.25"	
ARM32011DM	3	2 (with SMA Male)	0	1 (with SMA Male)	Black			
ARM32012DM	3	2 (with SMA Male)	0	1 (with SMA Male)	White			
ARM21011DM	2	1 (with SMA Male)	0	1 (with SMA Male)	Black			
ARM21012DM	2	1 (with SMA Male)	0	1 (with SMA Male)	White			
ARM21011DMTT	2	1 (with TNC Male)	0	1 (with TNC Male)	Black			
ARM22001DM	2	2 (with SMA Male)	0	0	Black			

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Europe Headquarters Pulse GmbH & Do, KG Zeppelinstrasse 15 Herrenberg, Germany Tel: 1-360-944-7551 Downloaded From Oneyac.com

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**Description**: Vehicular Multiband Antenna with

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PART NUMBER: ARMXXXXXDM

## Series: ARMADILLO

### This document covers all product variants of the following product family

**Product Numbering** 

Vehicular Multiband Antenna with Direct Mount

(Part Number)

























	B 1 (1B 1B)(1B)(1A					
	Product ID: ARMADILLO					
<b>*</b>	Total Number of Cable leads					
1	Total Number of LTE Cable Leads					
	Total Number of WiFi Cable Leads					
•	Total Number of GPS Cable Leads					
	The Color of the Plastic Housing					
•	1=Black; 2= White					
•	Mounting: Direct Mount; 7/8" Hole Required					

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**Description**: Vehicular Multiband Antenna with

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PART NUMBER: ARMXXXXXDM

## Series: ARMADILLO

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				
5150-5925MHz	<2				
Isolation*					
698-960MHz, 1710-2690MHz	-8dB				
2400-2500MHz, 5150-5925MHz	-12dB				
Average Peak Gain**					
698-960MHz;	4.9dBi				
1710-2690MHz	5.3dBi				
2400-2500MHz	4.6dBi				
5150-5925MHz	6.6dBi				
Polarization	Vertical				

<sup>\*\*</sup>Test on 500mm ground plane with 1ft(304.8) LMR195 cable





<sup>\*</sup>Test on 500mm ground plane with 17ft(5.2m) LMR195 cable



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## Series: ARMADILLO

### **ELECTRICAL SPECIFICATIONS**

G	P.S	Αı	nte	nna	ì

Frequency 1561.098±2.046MHz/ 1575.42±1.023MHz/

1602.5625±4MHz

Nominal Impedance 50  $\Omega$ 

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





**Description**: Vehicular Multiband Antenna with

Yes

**Direct Mount** 

PART NUMBER: ARMXXXXXDM

## Series: ARMADILLO

Cable length

**RoHS Compliant** 

### **MECHANICAL SPECIFICATIONS**

Overall Length 202.3mm X 88.5mm X 45mm

Weight 1.15 Kg

Antenna Color / Material

Connector type

Cable type

Black or White

Refer to Page 2

Refer to Page 2

Refer to Page 2

### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature  $-40 \sim +85^{\circ}$  C Storage Temperature  $-40 \sim +85^{\circ}$  C Ingress Protection IP67

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	



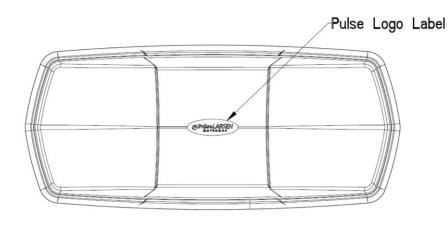
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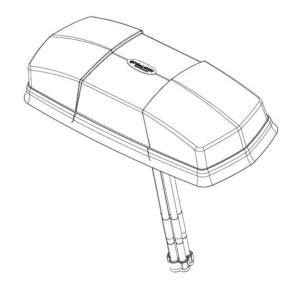
**Direct Mount** 

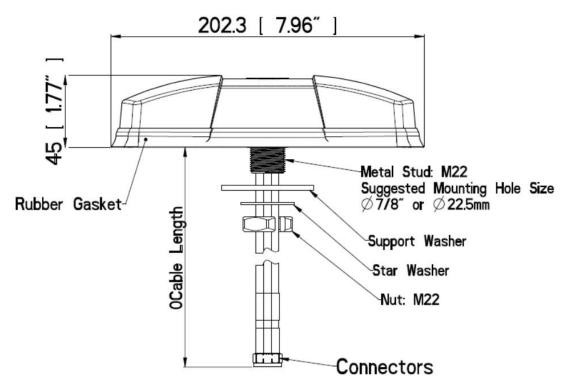
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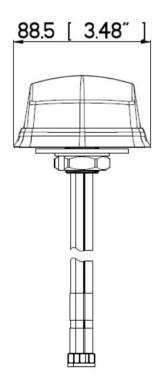
## **Series: ARMADILLO**

### **MECHANICAL DRAWING**











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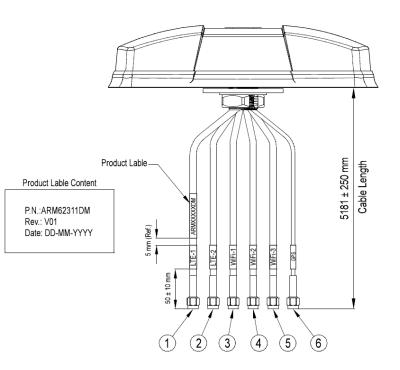
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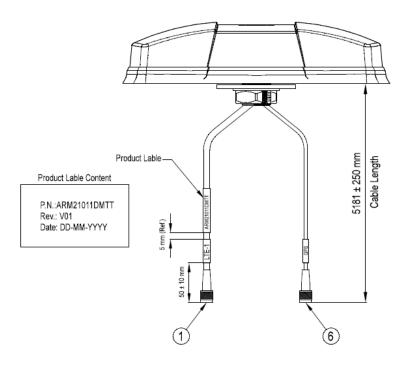
PART NUMBER: ARMXXXXXDM

ARM21011DMTT

## Series: ARMADILLO

### **MECHANICAL DRAWING**





ARM62311DM		CABLE	CABLE LENGTH	CONNECTOR
1	LTE-1 Cable Assy	LMR-195 *		CMA Mele
2	LTE-2 Cable Assy	TINK-190		SMA Male
3	WiFi-1 Cable Assy		5181 mm /	
4	WiFi-2 Cable Assy	LMR-195*	204" /	RP-SMA Male
5	WiFi-3 Cable Assy		17 FT	
6	GPS Cable Assy	LMR-100*		SMA Male

L	ANIVIZIOTIDIVITI		CABLE	CABLE LENGTH	CONNECTOR
	1	LTE-1 Cable Assy	LMR-195 *		TNO Mala
	2		LIVIK-195		TNC Male
	3			5181 mm /	
	4			204" /	
	5			17 FT	
	6	GPS Cable Assy	LMR-100*		TNC Male

CARLE

CARLE LENGTH

CONNECTOR

\* or equivalent \* or equivalent



**Description**: Vehicular Multiband Antenna with

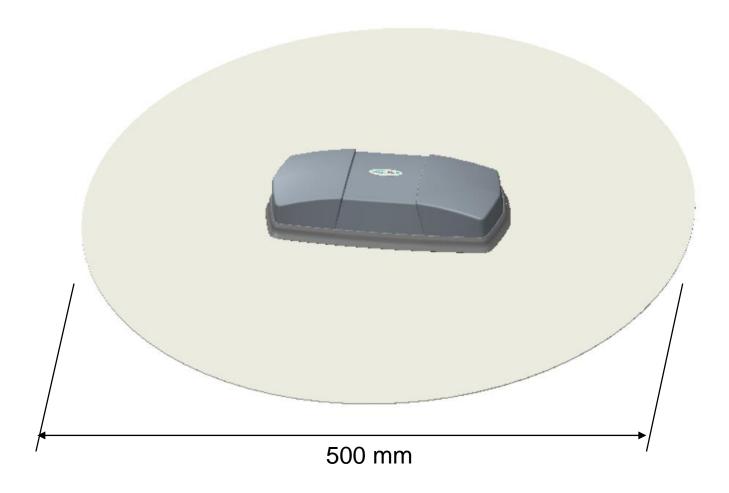
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

## **Series: ARMADILLO**

### **TEST SETUP**

Antenna tested on a Ø500mm ground plane.





**Description**: Vehicular Multiband Antenna with

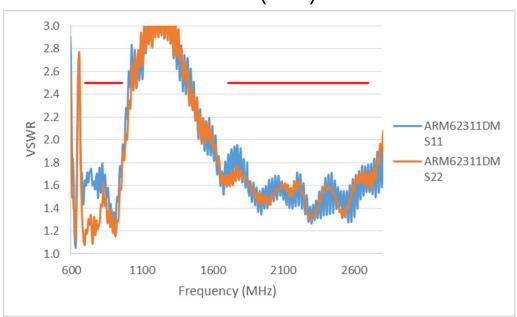
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

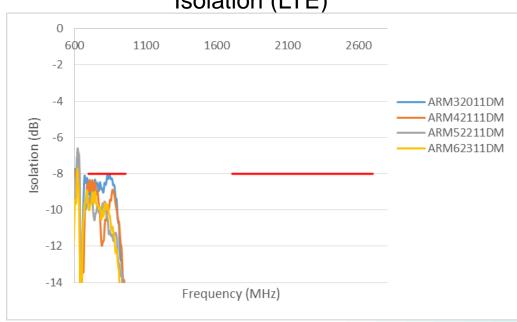
**Series: ARMADILLO** 

### **CHARTS**

## VSWR (LTE)



Isolation (LTE)



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

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ROHS COMPLIANT



**Description**: Vehicular Multiband Antenna with

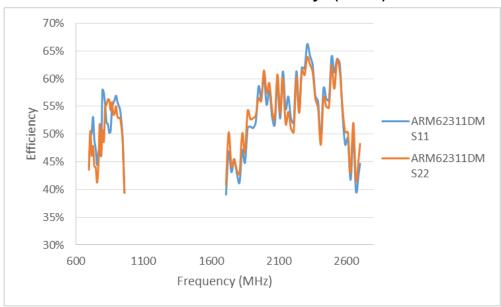
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

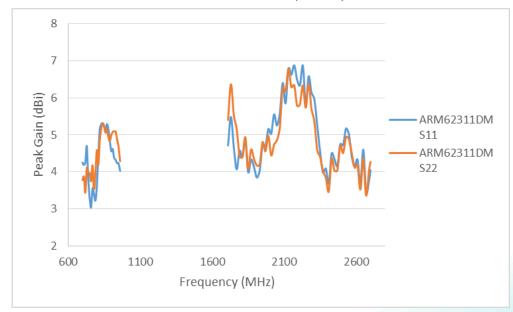
## **Series: ARMADILLO**

# CHARTS

## Radiation Efficiency (LTE)



## Peak Gain (LTE)



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

Issue: 2034



**Description**: Vehicular Multiband Antenna with

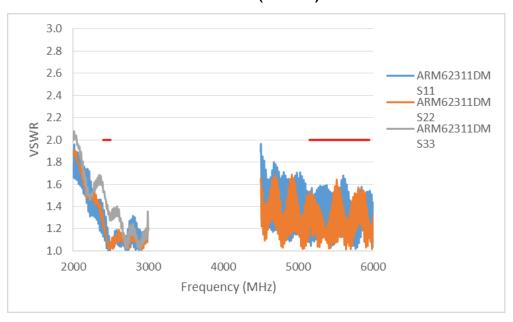
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

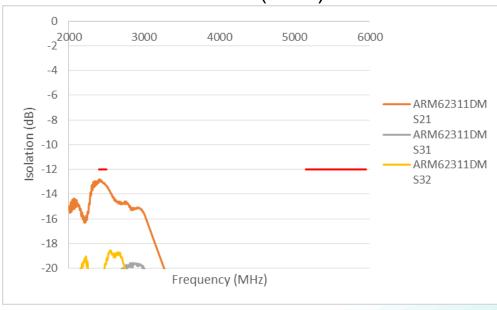
## **Series: ARMADILLO**

### **CHARTS**

## VSWR (WIFI)



## Isolation (WIFI)



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

12



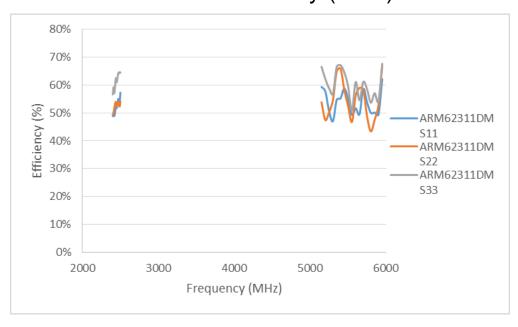
**Description**: Vehicular Multiband Antenna with

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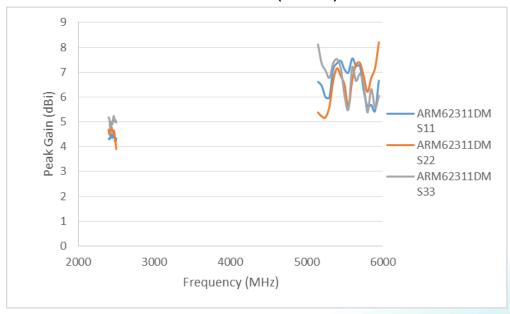
PART NUMBER: ARMXXXXXDM

## Series: ARMADILLO

# CHARTS Radiation Efficiency (WIFI)



## Peak Gain (WIFI)



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



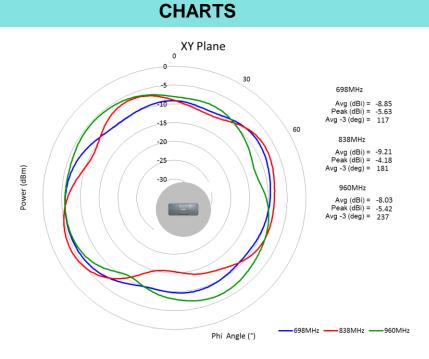


### TECHNICAL DATA SHEET

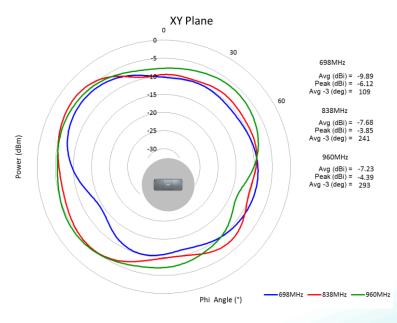
**Description**: Vehicular Multiband Antenna with

**Direct Mount** 

PART NUMBER: ARMXXXXXDM



## LTE1 XY plane radiation pattern



## LTE2 XY plane radiation pattern





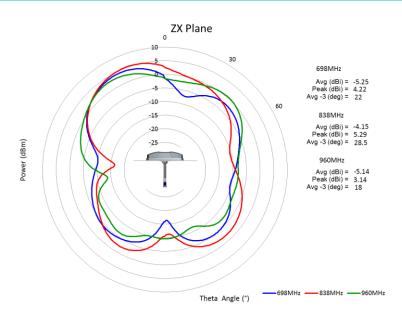
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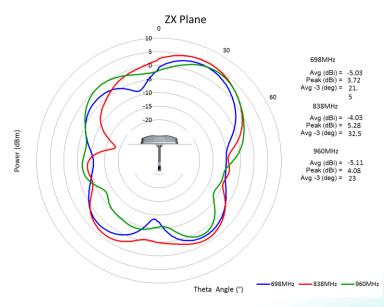
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

**CHARTS** 



## LTE1 ZX plane radiation pattern



## LTE2 ZX plane radiation pattern

Issue: 2034





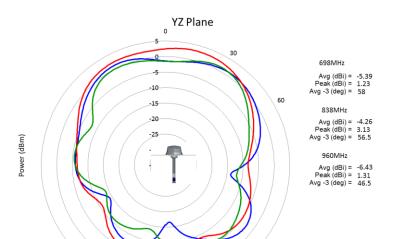
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**Description**: Vehicular Multiband Antenna with

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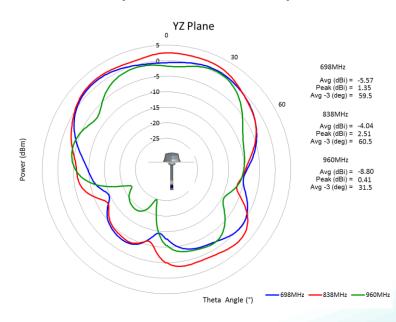
**CHARTS** 

PART NUMBER: ARMXXXXXDM



## LTE1 YZ plane radiation pattern

Theta Angle (°)



## LTE2 YZ plane radiation pattern



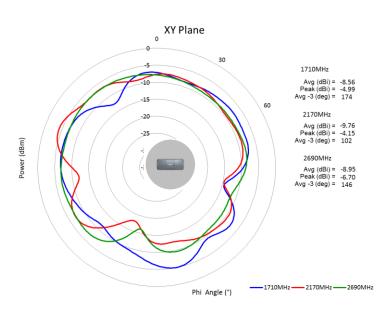
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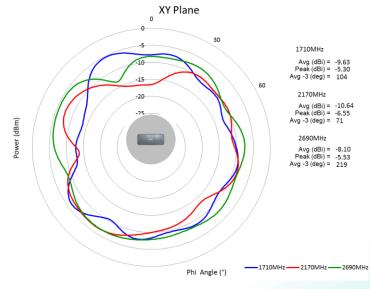
PART NUMBER: ARMXXXXXDM

# Series: ARMADILLO

### **CHARTS**



## LTE1 XY plane radiation pattern



## LTE2 XY plane radiation pattern





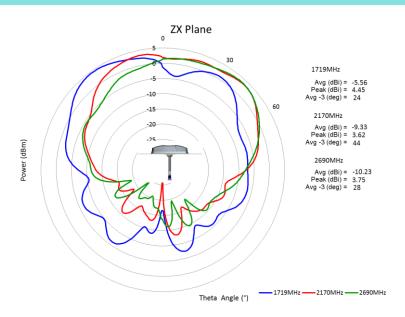
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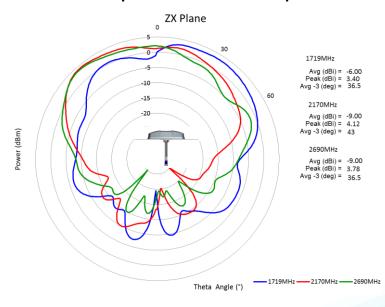
PART NUMBER: ARMXXXXXDM

## Series: ARMADILLO

### **CHARTS**



## LTE1 ZX plane radiation pattern



## LTE2 ZX plane radiation pattern

Issue: 2034



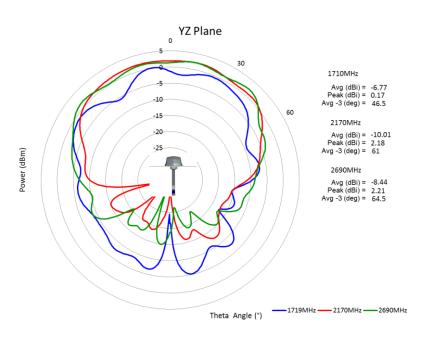
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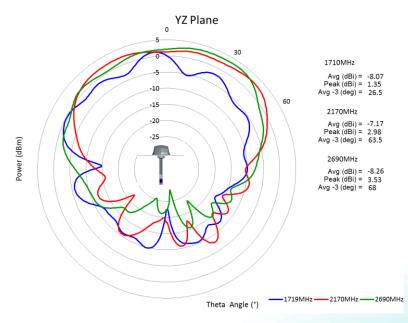
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

### **CHARTS**



## LTE1 YZ plane radiation pattern



## LTE2 YZ plane radiation pattern

Issue: 2034



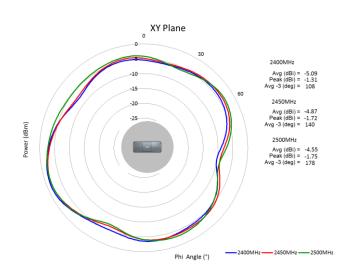
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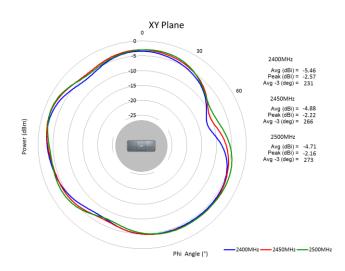
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PART NUMBER: ARMXXXXXDM

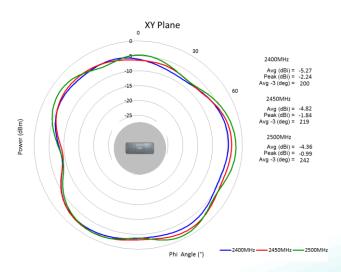
### **CHARTS**





## WiFi1 XY plane radiation pattern

WiFi2 XY plane radiation pattern



WiFi3 XY plane radiation pattern

Issue: 2034



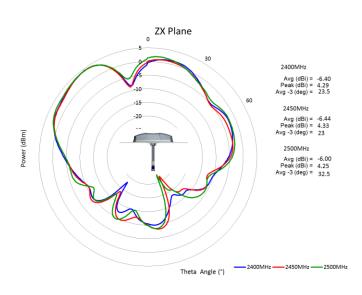
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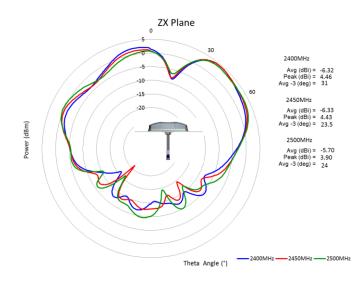
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

**Series: ARMADILLO** 

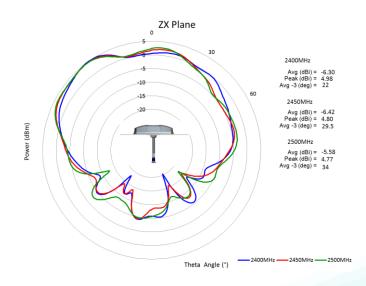
### **CHARTS**





## WiFi1 ZX plane radiation pattern

## WiFi2 ZX plane radiation pattern



## WiFi3 ZX plane radiation pattern



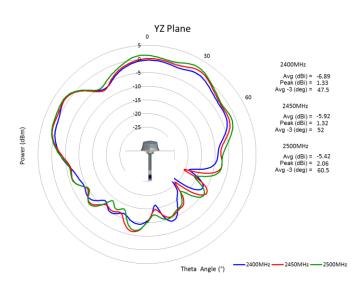
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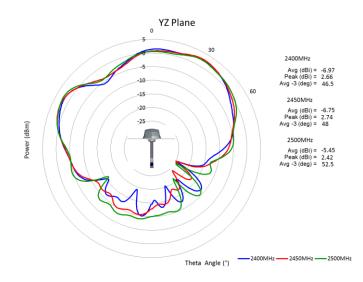
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

## Series: ARMADILLO

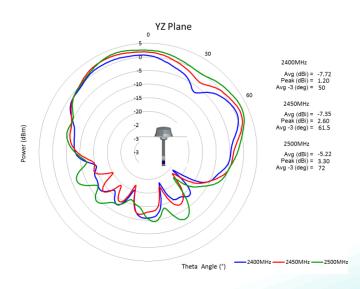
### **CHARTS**





## WiFi1 YZ plane radiation pattern

WiFi2 YZ plane radiation pattern



## WiFi3 YZ plane radiation pattern

Issue: 2034



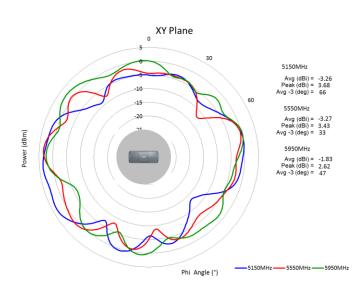
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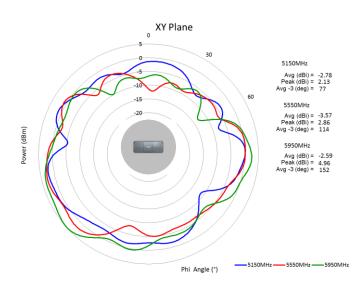
**Direct Mount** 

PART NUMBER: ARMXXXXXDM

**Series: ARMADILLO** 

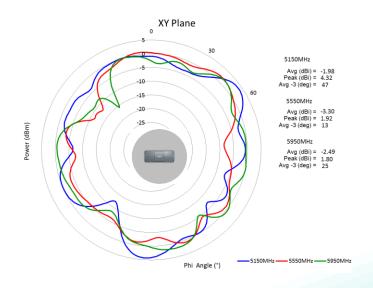
### **CHARTS**





## WiFi1 XY plane radiation pattern

## WiFi2 XY plane radiation pattern



## WiFi3 XY plane radiation pattern



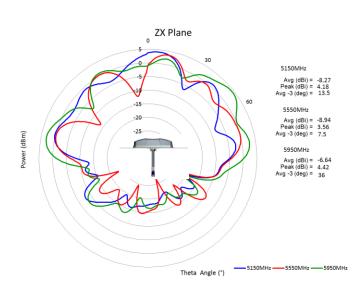
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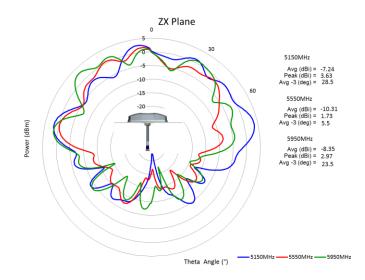
**Direct Mount** 

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## **Series: ARMADILLO**

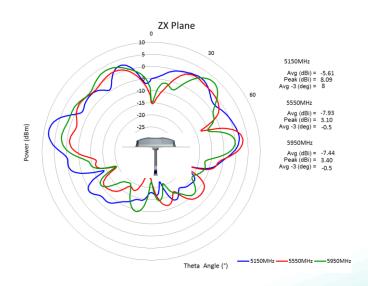
### **CHARTS**





## WiFi1 ZX plane radiation pattern

## WiFi2 ZX plane radiation pattern



## WiFi3 ZX plane radiation pattern

Issue: 2034



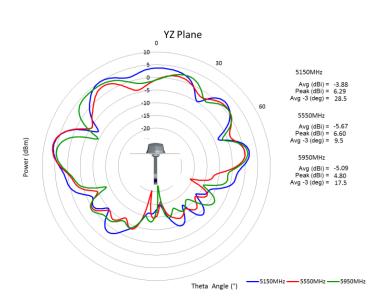
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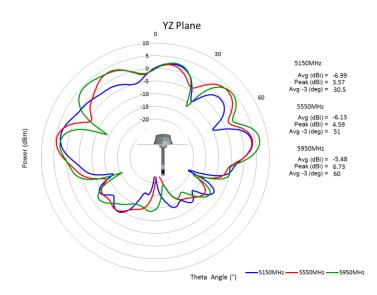
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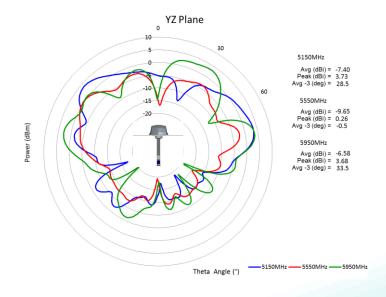
### **CHARTS**





## WiFi1 YZ plane radiation pattern

## WiFi2 YZ plane radiation pattern



## WiFi3 YZ plane radiation pattern



### TECHNICAL DATA SHEET

**Description**: Vehicular Multiband Antenna with

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PART NUMBER: ARMXXXXXDM

### **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.

## 单击下面可查看定价,库存,交付和生命周期等信息

## >>Pulse(普思)