

AANI-FB-0180

Request Samples



Check Inventory



76 x 47 x 0.2 mm
RoHS Compliant
MSL Level = N/A

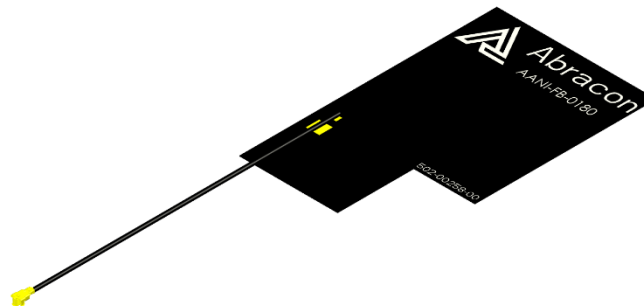
Features

- Multiband Multi-Constellation Passive GNSS Antenna
- GNSS Peak Gain: 4.4 dBi
- GNSS Efficiency: 87 %
- Ground Plane Independent
- Flexible to Fit Inside Plastic Enclosures
- Fully Customizable Cable Length and Connector Options

Applications

- UAVs and Drones
- Robotics and Autonomous Driving
- Real-Time Kinematic (RTK)
- Intelligent Transportation
- Precision Land Survey Positioning
- Precision Agriculture

Product Image



**AANI-FB-0180**

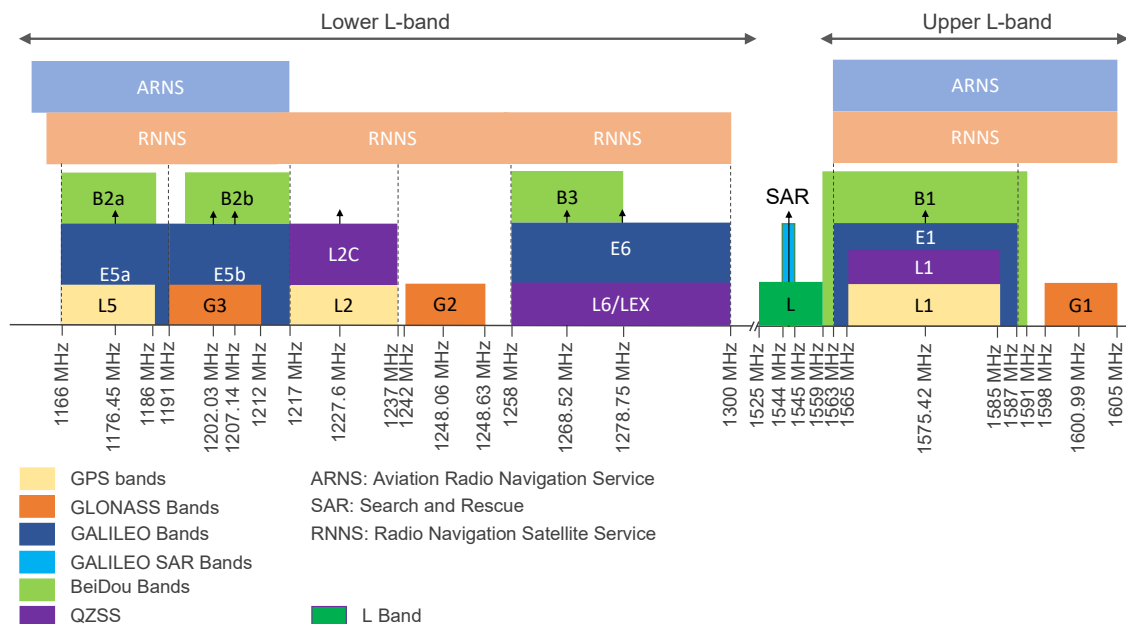
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**76 x 47 x 0.2 mm****RoHS Compliant****MSL Level = N/A****NSS Frequency Bands Covered**

GPS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz		
	■	■	■		
GLONASS	G1 1598.06-1609.31MHz	G2 1242.93-1251.68MHz	G3 1202.025MHz		
	■	■	■		
Galileo	E1 1575.42MHz	E5a 1176.45MHz	E5b 1201.5MHz	E6 1278.75MHz	
	■	■	■	■	
BeiDou	B1C 1575.42MHz	B2b 1207.14MHz	B2a 1176.45MHz	B3 1268.52MHz	B1I 1561MHz
	■	■	■	■	■
L-Band	L-Band 1542MHz				
	■				
QZSS	L1 1575.42MHz	L2 1227.6MHz	L5 1176.45MHz	L6 1278.75MHz	
	■	■	■	■	
IRNSS/NAVIC			L5 1176.45MHz		
			■		
SBAS	L1/E1/B1 1575.42MHz		L5/B2a/E5a 1176.45MHz		
	■		■		



Frequency allocation: GNSS systems, upper L bands and lower L bands



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Electrical Specification

Parameters	Typ.					Units
	1166.22-1186.68 (L5)	1212-1242 (L2)	1257.75-1299.75 (L6)	1565.19-1585.65 (L1)	1598.06-1605.37 (G1)	
Operating Frequency (Band)						MHz
VSWR	≤ 2					-
Peak Gain	2.9	4.4	4.1	3.4	3.8	dBi
Maximum Efficiency	65.2	87	80.6	63.1	68.4	%
Impedance	50					Ω
Polarization	Linear					-
Radiation Pattern (Azimuth)	Omni-directional					-
Maximum Input Power	5					W

Please note: All measurement data is based on the standard configuration (conducted in free space unless otherwise specified).

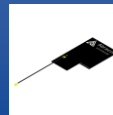
Mechanical Specification

Parameter	Specification
Antenna Dimension	76 x 47 x 0.2 mm
Antenna Type	Flexible PCB
Mounting Type	Adhesive Mount
RF Connector ⁽¹⁾	u.FL/IPEX-1/MHF1
RF Cable Type ⁽¹⁾	$\varnothing 1.13$ mm
Cable Length ⁽¹⁾	70 ± 2 mm

(1): Fully customizable RF Cable & Connector

Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
RoHS Compliance	Yes

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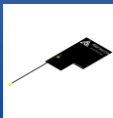
RoHS Compliant

MSL Level = N/A

Ordering Information

Part Number	Description	Connector Option
AANI-FB-0180-1	Full-Band Full-Constellation GNSS FPC Antenna 70 mm cable, and MHF1 connector	u.FL/IPEX-1/MHF1
AANI-FB-0180-2	Full-Band Full-Constellation GNSS FPC Antenna 70 mm cable, and MMCX connector	MMCX
AANI-FB-0180-3	Full-Band Full-Constellation GNSS FPC Antenna 70 mm cable, and SMA connector	SMA
AANI-FB-0180-4	Full-Band Full-Constellation GNSS FPC Antenna 150 mm cable, and MHF1 connector	u.FL/IPEX-1/MHF1
AANI-FB-0180-5	Full-Band Full-Constellation GNSS FPC Antenna 150 mm cable, and MMCX connector	MMCX
AANI-FB-0180-6	Full-Band Full-Constellation GNSS FPC Antenna 150 mm cable, and SMA connector	SMA
AANI-FB-0180-7	Full-Band Full-Constellation GNSS FPC Antenna 200 mm cable, and MHF1 connector	u.FL/IPEX-1/MHF1
AANI-FB-0180-8	Full-Band Full-Constellation GNSS FPC Antenna 200 mm cable, and MMCX connector	MMCX
AANI-FB-0180-9	Full-Band Full-Constellation GNSS FPC Antenna 200 mm cable, and SMA connector	SMA

Note: Different cable and connector configurations that are not listed may be available upon request via [Abracon online support](#)



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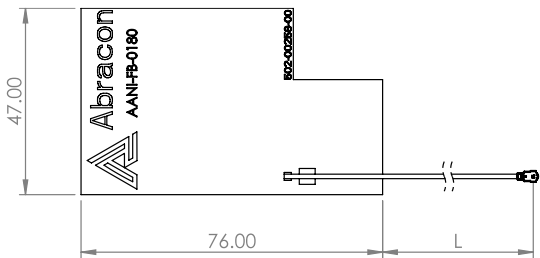


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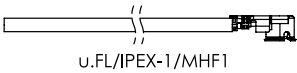
76 x 47 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Product Dimension

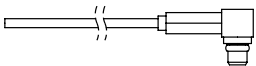


TOP VIEW

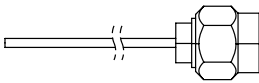
CONNECTOR



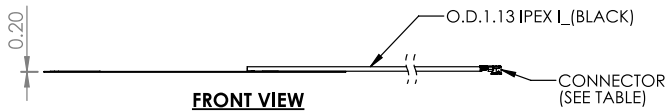
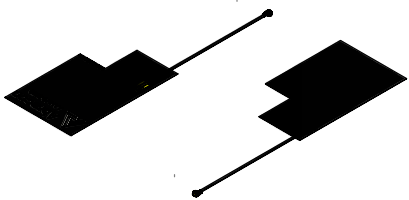
u.FL/IPEX-1/MHF1



MMCX

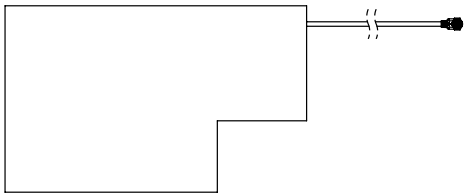


SMA



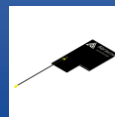
FRONT VIEW

PART NUMBER	CABLE LENGTH (L)	CONNECTOR
AANI-FB-0180-1	70	u.FL/IPEX-1/MHF1
AANI-FB-0180-2	70	MMCX
AANI-FB-0180-3	70	SMA
AANI-FB-0180-4	150	u.FL/IPEX-1/MHF1
AANI-FB-0180-5	150	MMCX
AANI-FB-0180-6	150	SMA
AANI-FB-0180-7	200	u.FL/IPEX-1/MHF1
AANI-FB-0180-8	200	MMCX
AANI-FB-0180-9	200	SMA



BOTTOM VIEW

Unit: mm



AANI-FB-0180

Request Samples

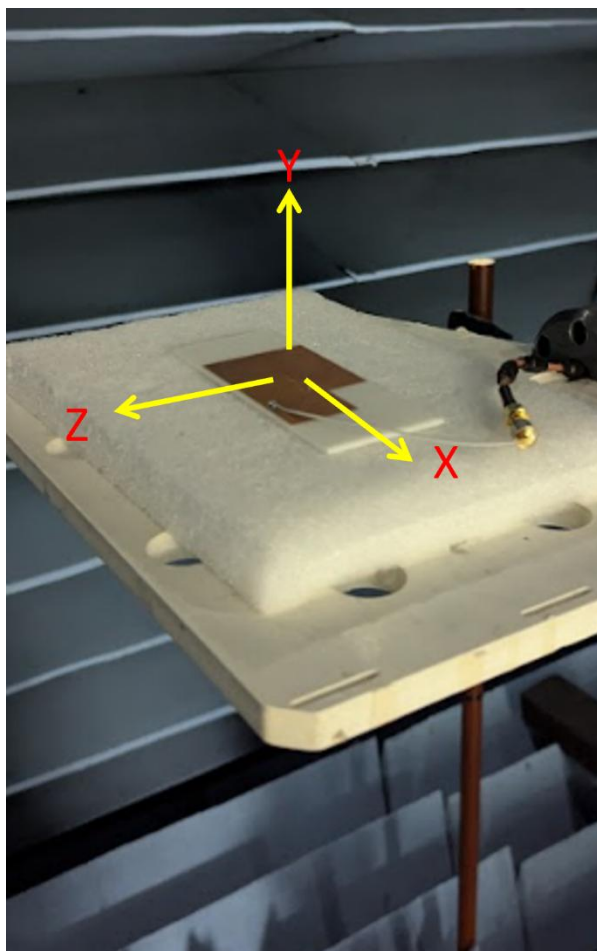


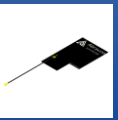
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76 x 47 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Measurement Setup





AANI-FB-0180

Request Samples

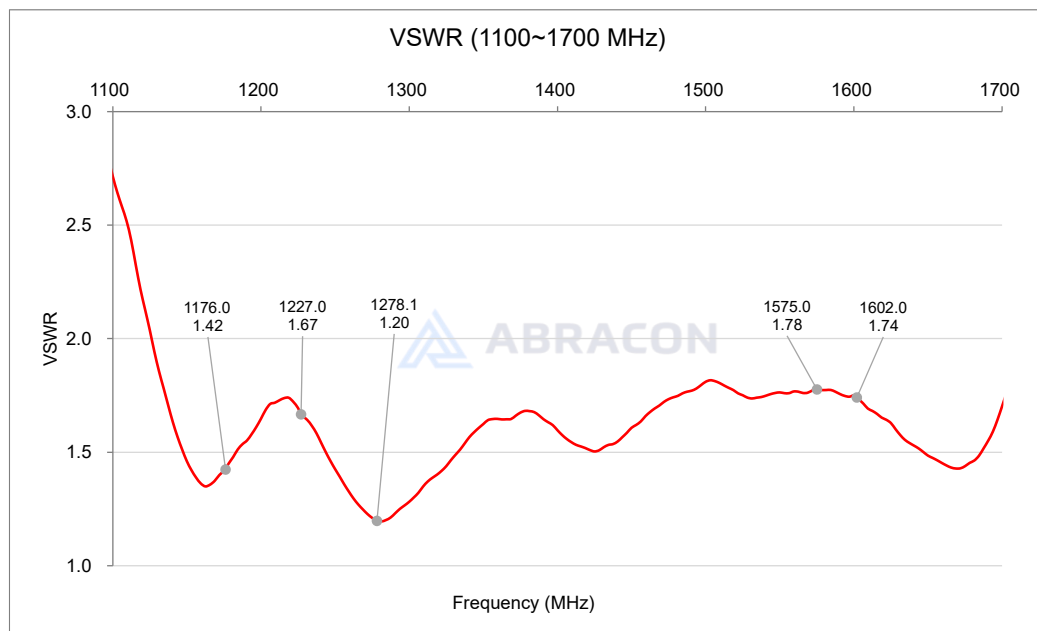
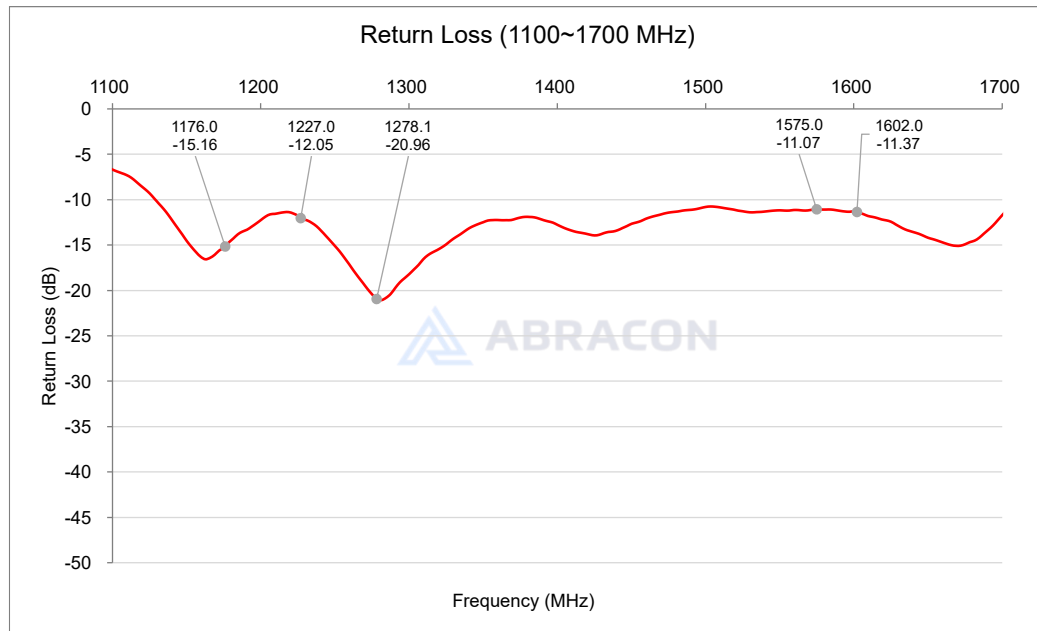


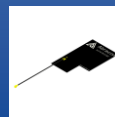
Check Inventory



76 x 47 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Reflection Characteristics – Return Loss & VSWR





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Request Samples

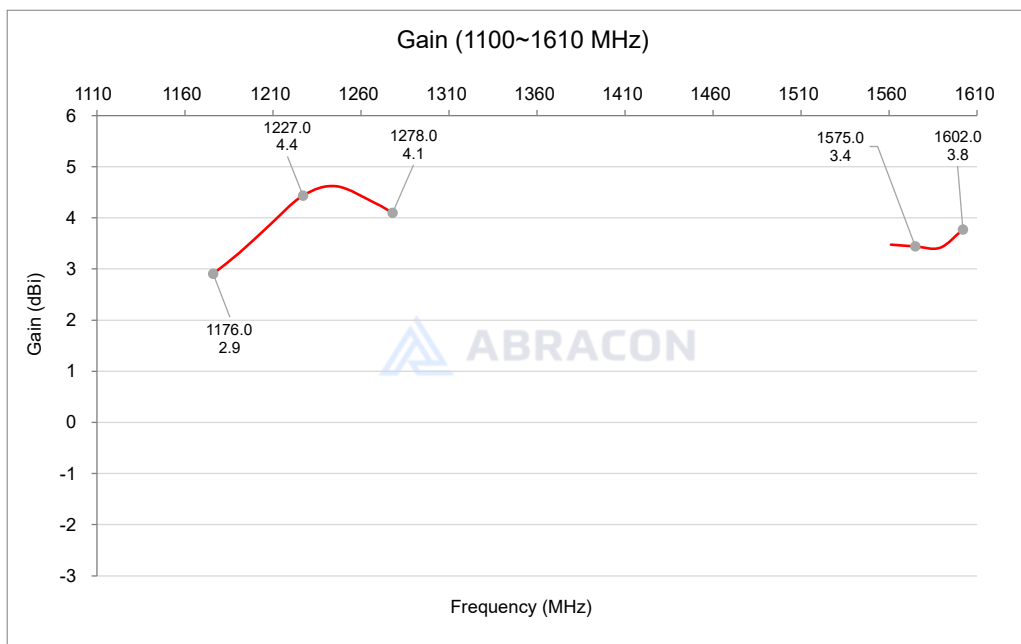


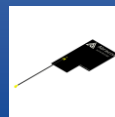
Check Inventory



76 x 47 x 0.2 mm
RoHS Compliant
MSL Level = N/A

Radiation Characteristics –Passive Peak Gain





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Check Inventory

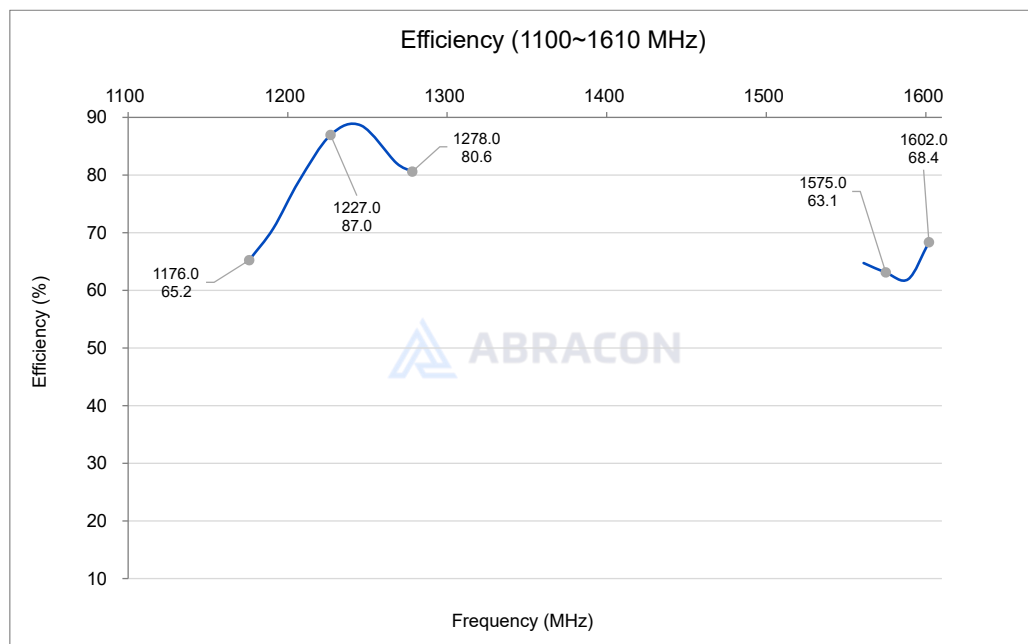


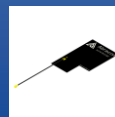
76 x 47 x 0.2 mm

RoHS Compliant

MSL Level = N/A

Radiation Characteristics –Efficiency





AANI-FB-0180

Request Samples



Check Inventory



76 x 47 x 0.2 mm

RoHS Compliant

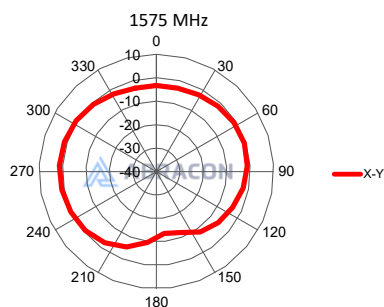
MSL Level = N/A

Radiation Characteristics – 3D & 2D Pattern

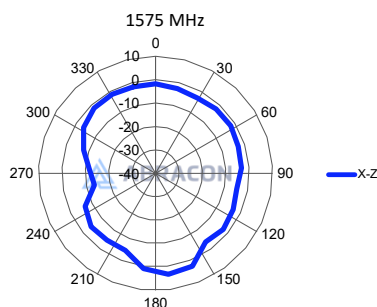
1575MHz (L1 Band)



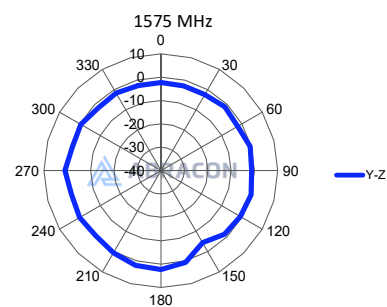
XY plane

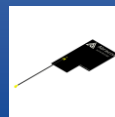


XZ plane



YZ plane





AANI-FB-0180

Request Samples



Check Inventory

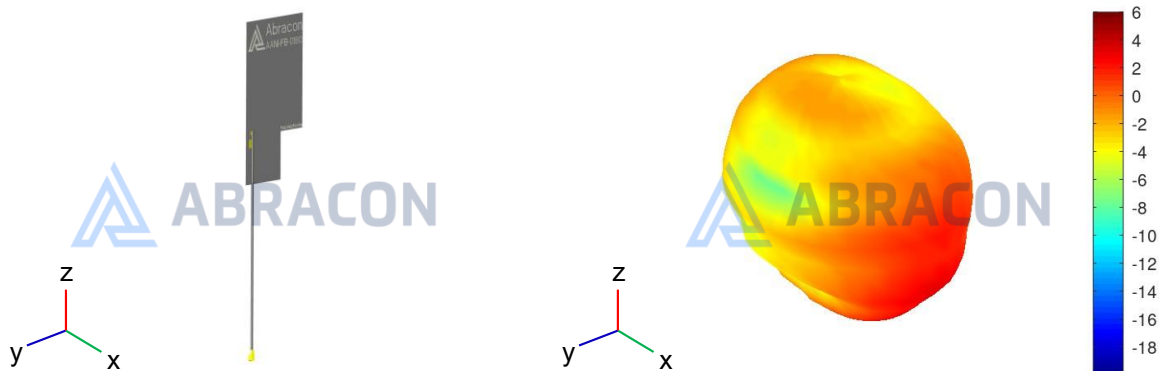


76 x 47 x 0.2 mm

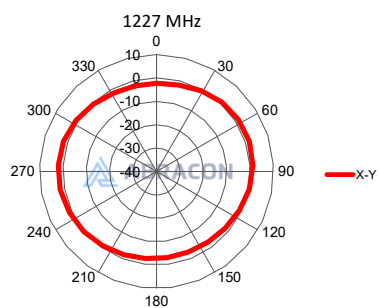
RoHS Compliant

MSL Level = N/A

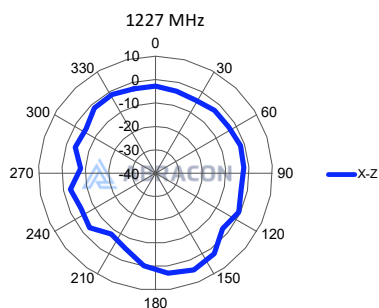
1227MHz (L2 Band)



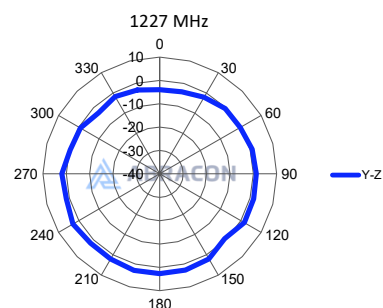
XY plane

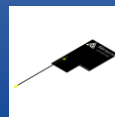


XZ plane



YZ plane





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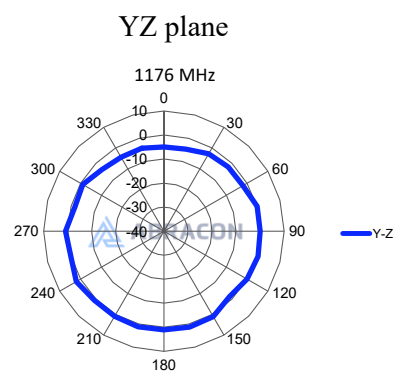
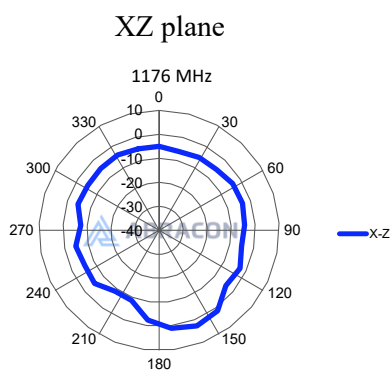
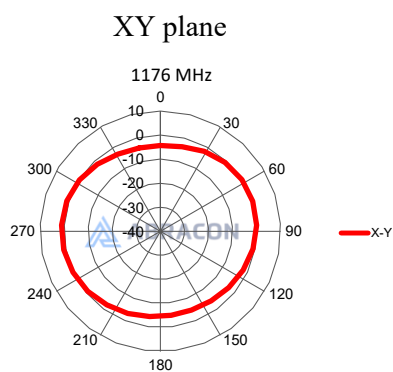
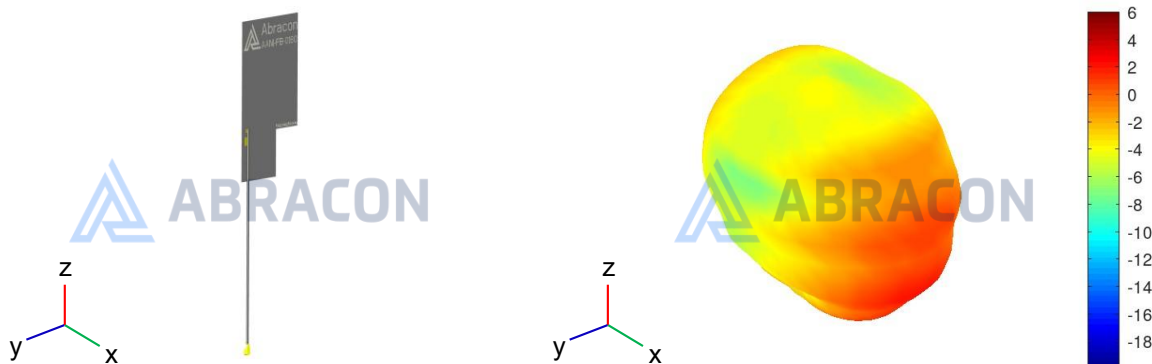


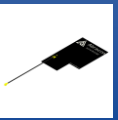
Check Inventory



76 x 47 x 0.2 mm
RoHS Compliant
MSL Level = N/A

1176MHz (L5 Band)





AANI-FB-0180

Request Samples

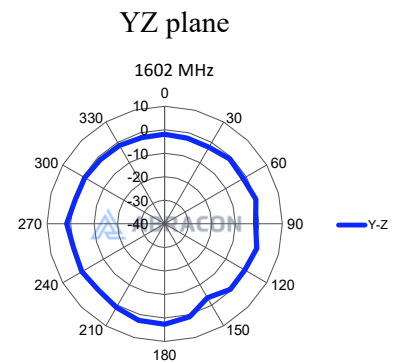
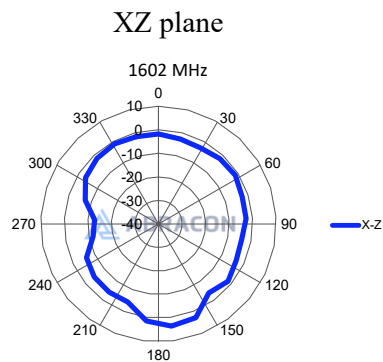
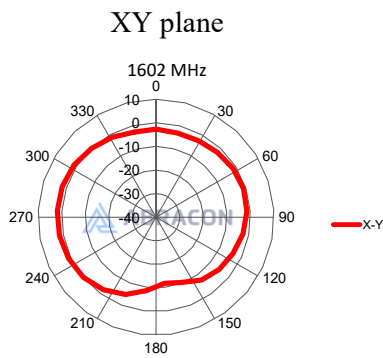
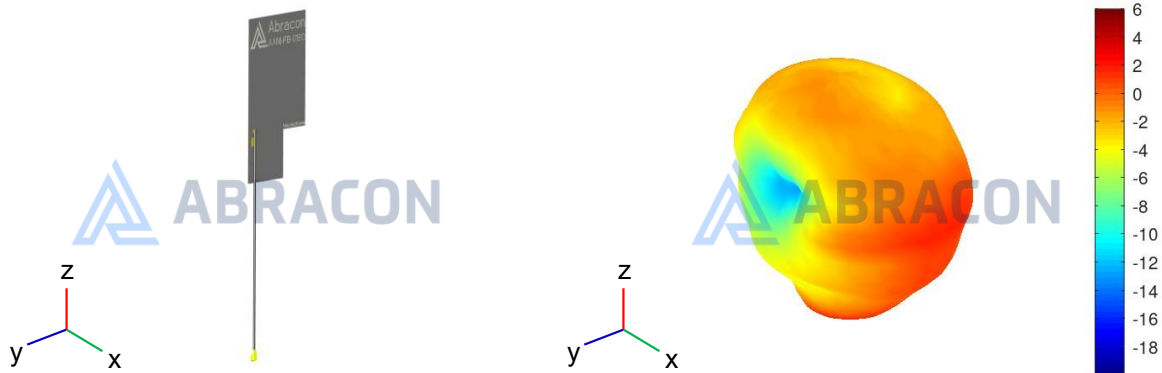


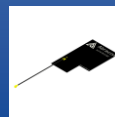
Check Inventory



76 x 47 x 0.2 mm
RoHS Compliant
MSL Level = N/A

1602MHz (G1 Band)





AANI-FB-0180

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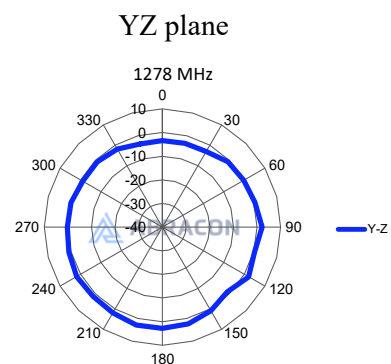
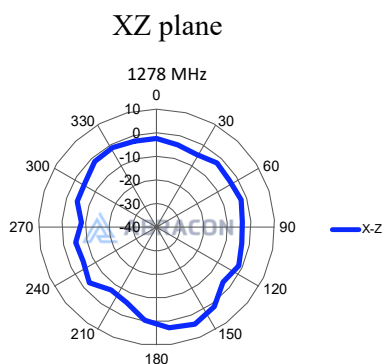
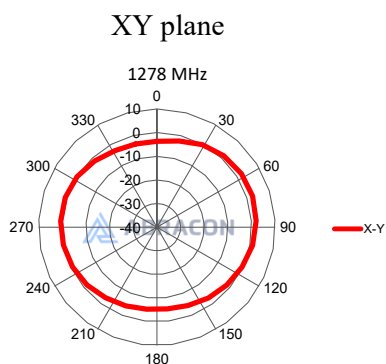
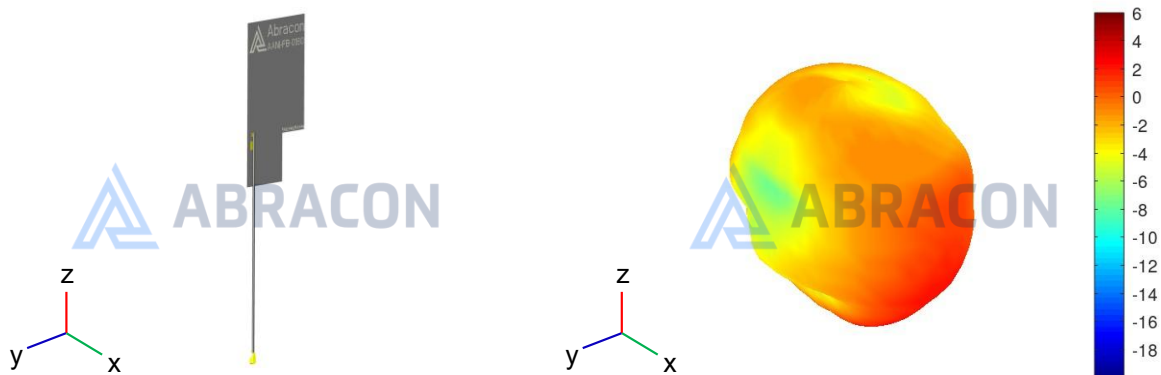


76 x 47 x 0.2 mm

RoHS Compliant

MSL Level = N/A

1278MHz (L6 Band)



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