

Part No. 9000440F0

GPS/GLONASS/Beidou/Galileo FPC Antenna

1.560 GHz, 1.575 GHz, 1.598 GHz, 1.606 GHz

Supports: Tracking, Smart Home, Agriculture, Healthcare, Digital Signage, Wearables, Industrial Devices



KYOCERA AVX's embedded GNSS Antenna delivers high RF performance and functionality in M2M designs where a more standard GPS patch approach is not possible. This innovative antenna provides compelling advantages for GNSS enabled M2M / IoT applications such as vehicle tracking or asset tracking. Based on a flexible substrate, this GNSS antenna can maintain high efficiency in various device configurations. In addition, the 9000440F0 antenna can be integrated easily into the end product.

GPS / GLONASS / Beidou / Galileo FPC Antenna

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KEY BENEFITS

Reduced Costs and Time-to-Market
 Standard antenna eliminates design fees and cycle time associated with a custom solution; getting products to market faster.

Quicker Time-to-Market
 By optimizing antenna size, performance and emissions, customer and regulatory specifications are more easily met.

Reliability
 Products are the latest RoHS version compliant.

APPLICATIONS

- Embedded design
- POS, Gateway, Handheld
- Telematics
- Tracking
- Healthcare
- M2M, Industrial devices
- Smart Grid
- OBD-II

Electrical Specifications

Typical characteristics with 150 mm cable, antenna is mounted directly on plastic material.

Frequency (GHz)	1.559 – 1.563	1.575	1.559 – 1.591	1.593 – 1.610
GNSS Bands	Beidou	GPS	Galileo	Glonass
Peak Gain (dBi)	2.4	2.4	2.5	2.5
Efficiency (%)	49	47	50	46
VSWR	< 2.3:1			
Polarization	Linear			
Radiation Pattern	Omni-directional			
Feed Point Impedance	50 Ω unbalanced			

Mechanical Specifications & Ordering Part Number

Ordering Part Number	9000440F0-AA12L0150
Dimensions (mm)	41.0 ± 0.2 length 15.5 ± 0.2 width
Connector Type	U.FL compatible
Weight (grams)	0.85
Cable (mm)	150
Operating Temperature Range (°C)	[-40°C ~+ 85°C]

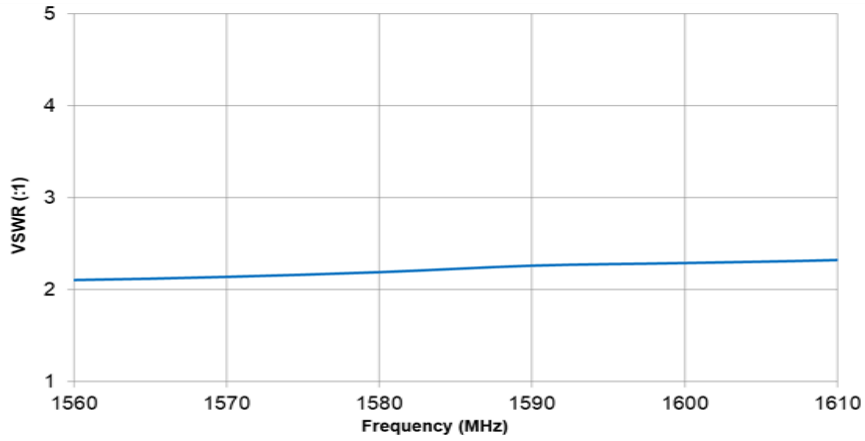
GNSS KYOCERA AVX FPC Embedded Antenna Specifications
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs..

VSWR Efficiency, and Peak Gain Plots

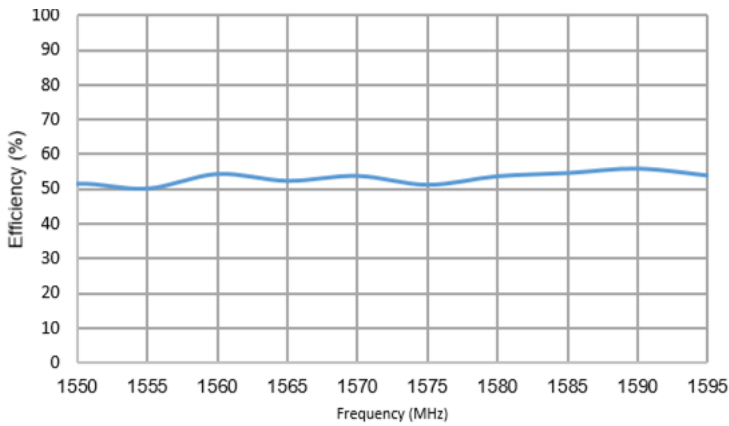
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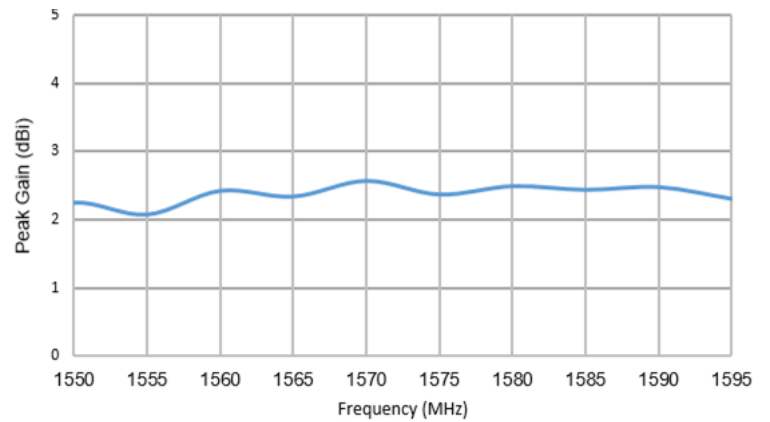
VSWR



Efficiency



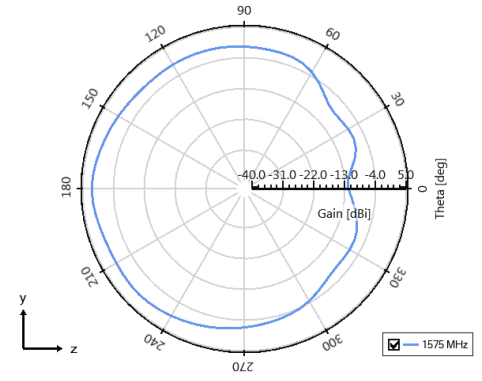
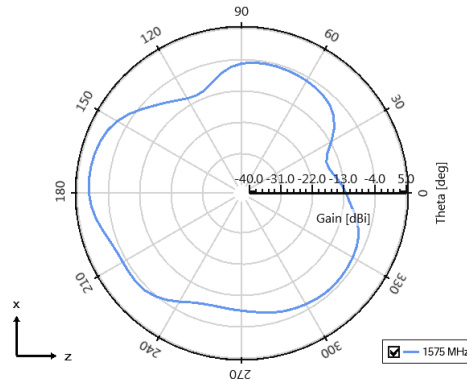
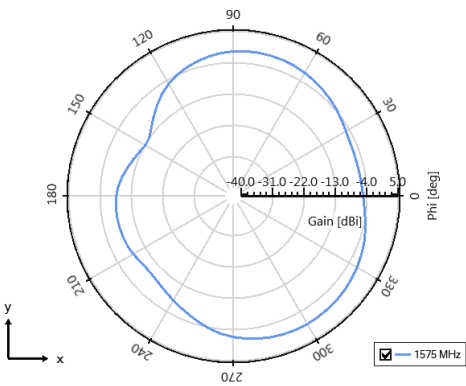
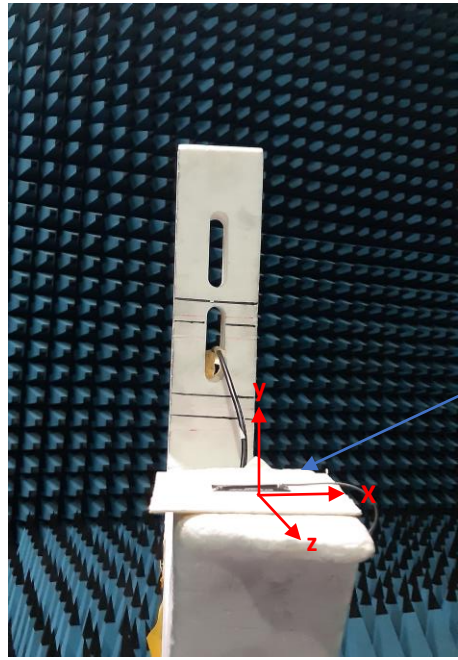
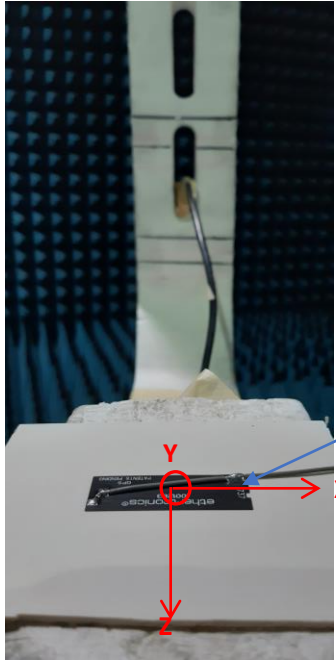
Peak Gain



GNSS KYOCERA AVX FPC Embedded Antenna Specifications
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VSWR and Peak Gain Plots

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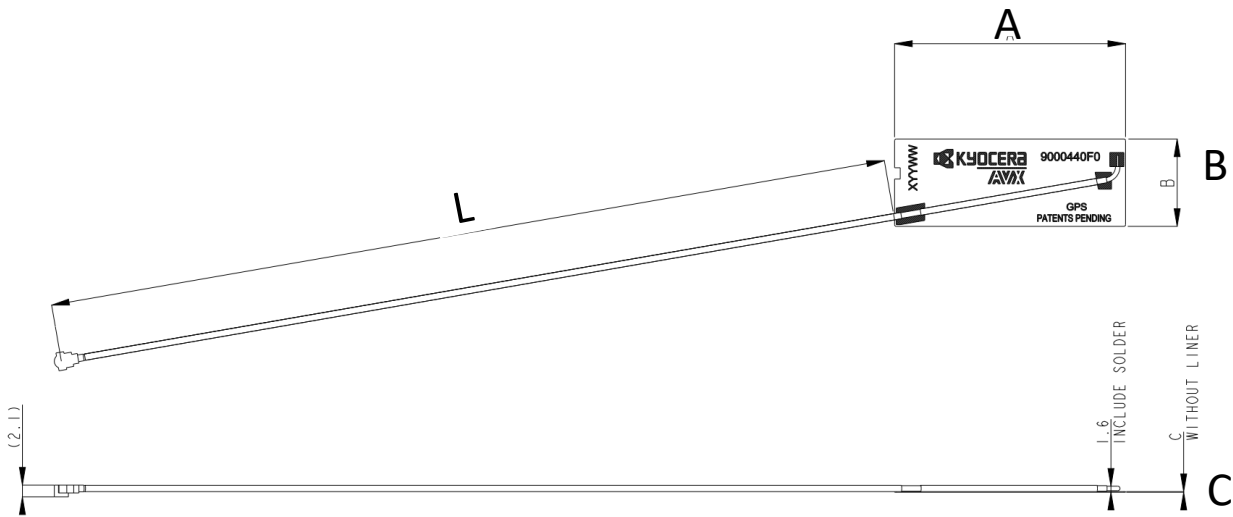


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Mechanical Dimensions

Typical antenna dimensions (mm)

PN	A (mm)	B (mm)	Thickness C (mm)	Lenth Cable L (mm)
9000440F0-AA12L0050	41.0 ± 0.2	15.5 ± 0.2	0.14 ± 0.2	50
9000440F0-AA12L0100	41.0 ± 0.2	15.5 ± 0.2	0.14 ± 0.2	100
9000440F0-AA12L0150	41.0 ± 0.2	15.5 ± 0.2	0.14 ± 0.2	150
9000440F0-AA12L0200	41.0 ± 0.2	15.5 ± 0.2	0.14 ± 0.2	200
9000440F0-AA12L0250	41.0 ± 0.2	15.5 ± 0.2	0.14 ± 0.2	250
9000440F0-AA12L0300	41.0 ± 0.2	15.5 ± 0.2	0.14 ± 0.2	300
9000440F0-AA12LXXXX	41.0 ± 0.2	15.5 ± 0.2	0.14 ± 0.2	XXXX



XXXX (mm)	CONDITION	TOLERANCE Z
0050	XXXX < 150	± 3.0
0100		
OTHER XXXX		
0150	150 ≤ XXXX < 300	± 4.0
0200		
0250		
OTHER XXXX		
0300		
0400	300 ≤ XXXX < 500	± 5.0
OTHER XXXX		
0500		
0600	500 ≤ XXXX < 1000	± 7.0
OTHER XXXX		
1000		
OTHER XXXX	1000 ≤ XXXX	± 1%

XXXX = CABLE LENGTH MENTIONNED IN PART NUMBER (CUSTOMER REQUEST)
 Z = TOLERANCE FOR XXXX DIMENSION