

Datasheet

2.4-2.5GHz & 5.15-5.85GHz
Internal Antenna



30 x 10 x 0.2mm

FPC Antenna

Features:

- Adhesive backing on the FPC simplifies mounting within the device
- Global frequency coverage
- FPC antenna assembly

Applications:

- Smart metering and utilities
- Industrial IoT
- Quick service restaurants
- Medical devices



Electrical Specifications

Antenna Characteristics

Antenna Type	Radiation Pattern	Polarization	Max. Input Power	Impedance
FPC Antenna	Omni	Linear	1W	50Ω

Frequency (GHz)	2.4~2.5	5.15~5.825
Return Loss (dB)	< -10	< -10
Peak Gain (dBi)	2.1	Band I (5150-5250 MHz): Gain: 2.58 dBi Band II (5250~5350 MHz): Gain: 2.51 dBi Band III (5470-5725 MHz): Gain: 2.28 dBi Band IV (5725-5850MHz): Gain: 3.10 dBi
Average Gain (dB)	-1.2	-1.5
Efficiency (%)	77	71

Mechanical Specifications

Environmental

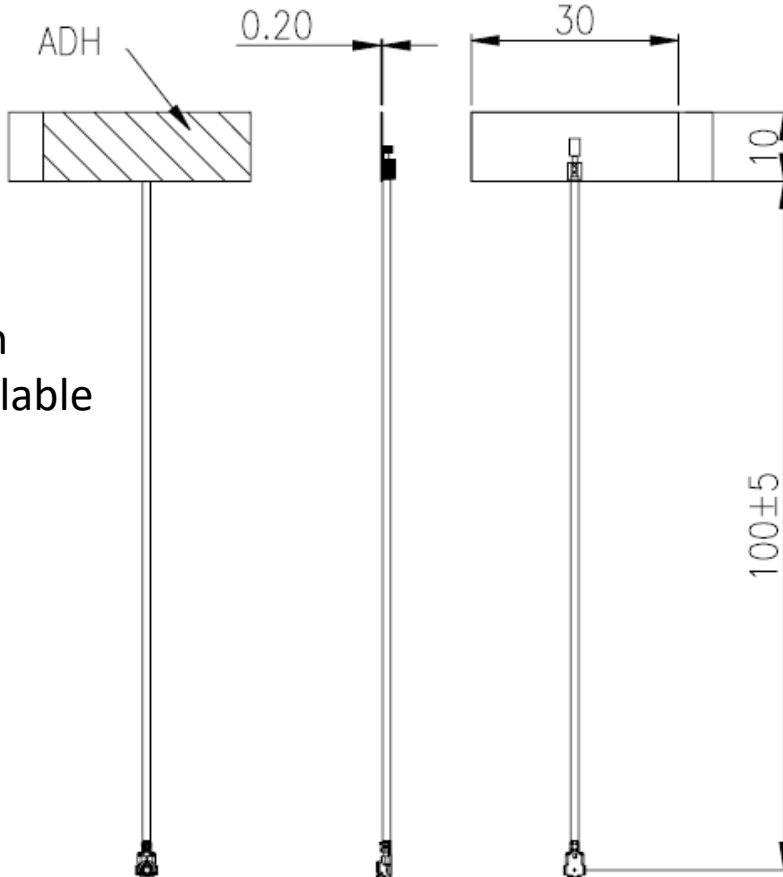
Temperature Range (°C)	-40 to 85
Humidity	Non-condensing 65°C 95% RH

RoHS Compliant

Part Number	Dim. (mm)	Weight (g)	Conn. Type	Cable Type	Material	Adhesive
ST0224-10-401-A	30 × 10 × 0.2	0.67	I-PEX MHF 1	Ø 1.37	PI	3M 467

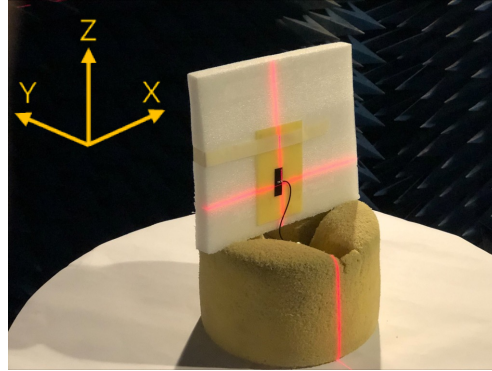
Mechanical Drawing

Unit : mm

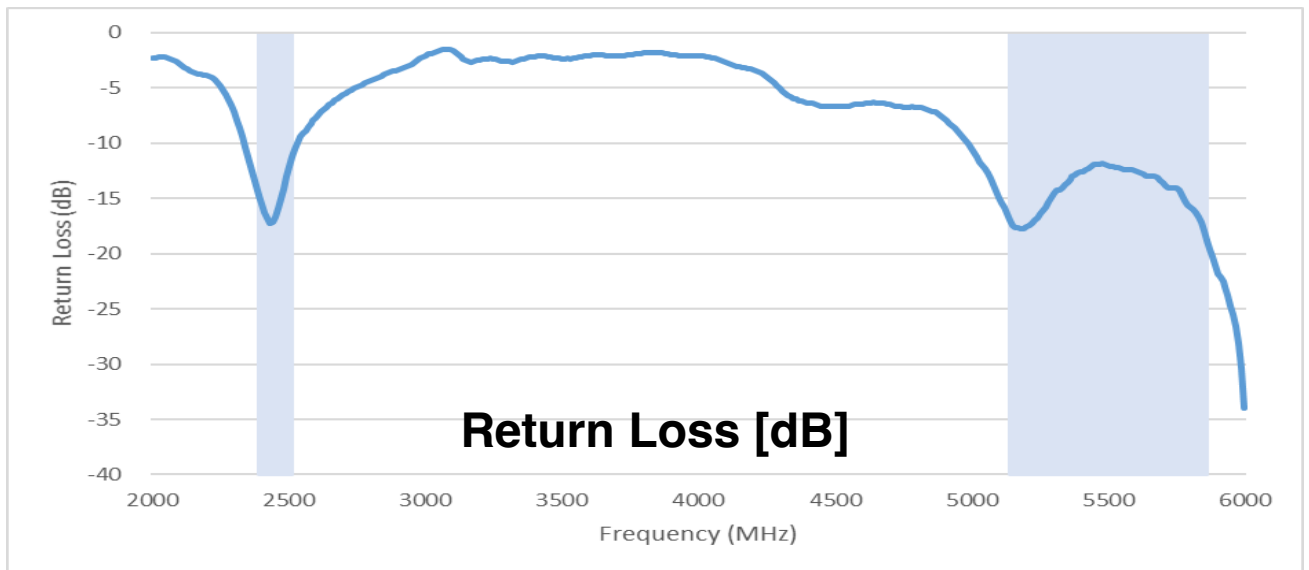


ST0224-10-401-A

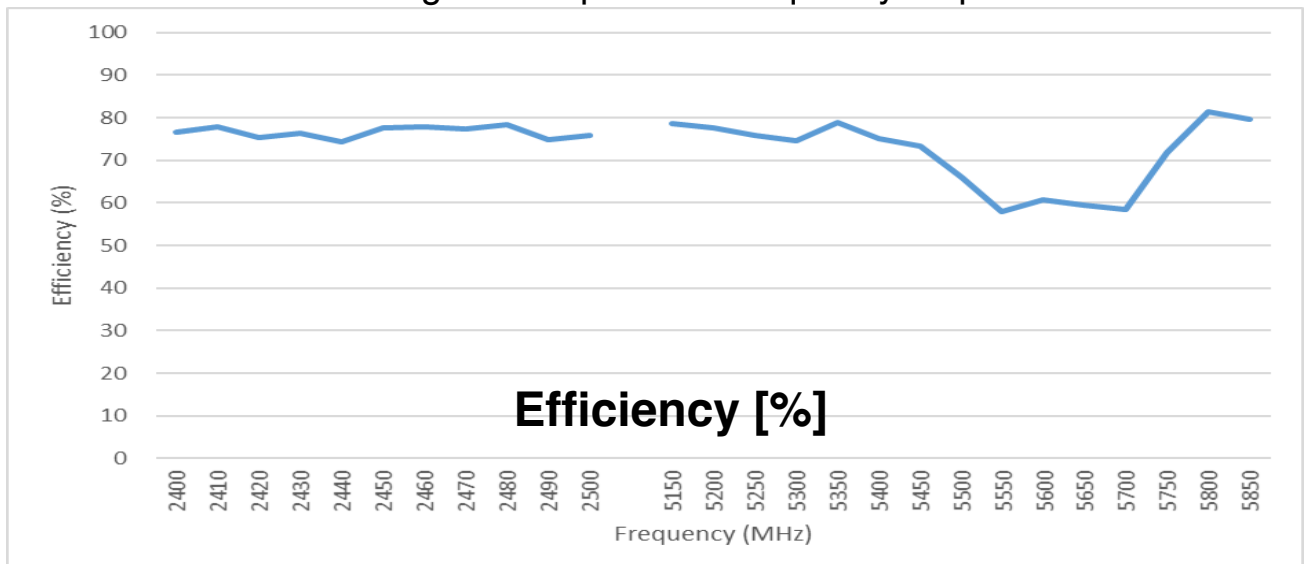
Charts In Free Space



Test setup, measurement performed in 3D anechoic chamber.

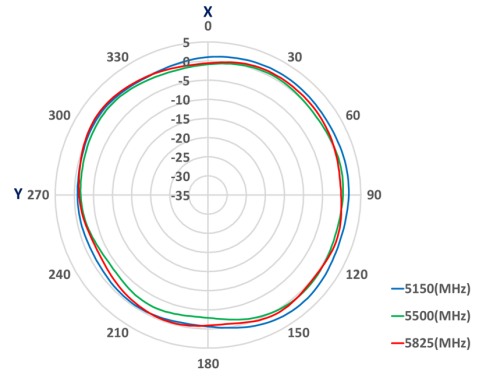
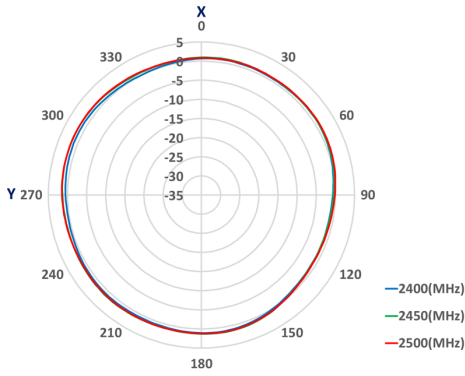


Blue background represents frequency response.

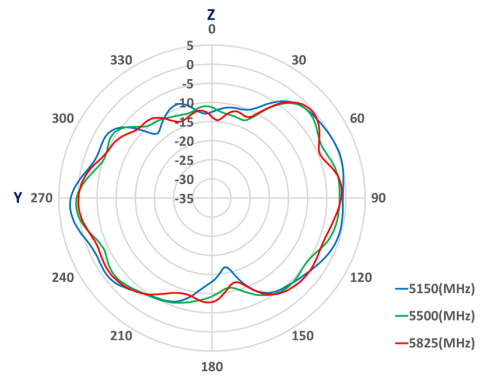
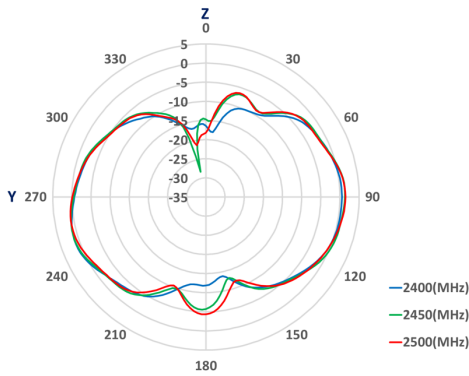


Radiation Pattern - Free Space

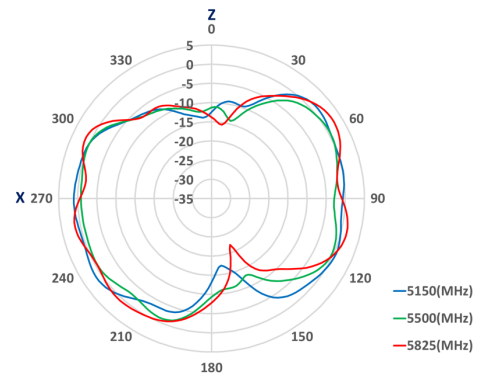
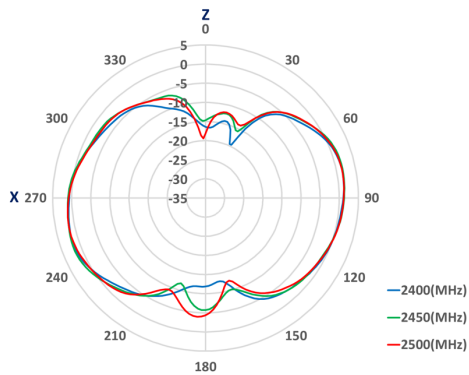
XY - Plane



YZ - Plane



XZ - Plane



Revisions

Rev	Description	Date	ECN	Approval
A	Initial Release	2022-10-25	ST0224-10-401-A-RA00	ATC
B	Additional info added. RF Performance update.	2023-01-02	ST0224-10-401-A-RB00	ATC

NOTICE - These drawings, specifications, or other data (1) are, and remain the property of Amphenol corp. (2) must be returned upon request; and (3) are confidential and not to be disclosed to any person other than those to whom they are given by Amphenol Corp. the furnishing of these drawings, specifications, or other data by Amphenol Corp., or to any other person to anyone for any purpose is not to be regarded by implication or otherwise in any manner licensing, granting rights to permitting such holder or any other person to manufacture, use or sell any product, process or design, patented or otherwise, that may in any way be related to or disclosed by said drawings, specifications, or other data.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Amphenol:](#)

[ST0224-10-401-A](#)