

ST0428-40-001-B

### **Datasheet**

# Amphenol

# 0.69-0.96GHz & 1.7-5.9GHz

External / In-building

# Features:

High performing full Sub-6 band antenna with SMA connector for indoor applications.

# Applications:

- CPE Router, Set-top boxes, Gateway
- IoT devices
- Sub-6 Mesh
- **Smart Metering**
- **Robotics**



Electrical Specifications									
Antenna Characteristics									
Antenna Type	Radiation Pattern		Polarizatior	n Max. Inp	ut Power	Impedance			
Stick Antenna	Omni		Linear	1	W	50Ω			
Frequency (GHz)		0.698~0.96	1.71~2.17	2.3~2.69	3.3~5	5.15~5.925			
Return Loss (dB)		< -6	< -6	< -6	< -6	< -6			
Peak Gain (dBi)		4.1	3.8	2.9	4.6	4.8			
Average Gain (dB)		-2.7	-1.4	-1.1	-1.5	-1.7			
Efficiency (%)		54	73	77	70	68			





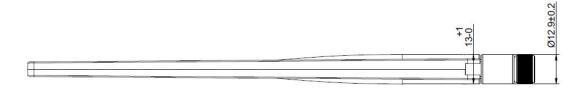
#### **Mechanical Specifications**

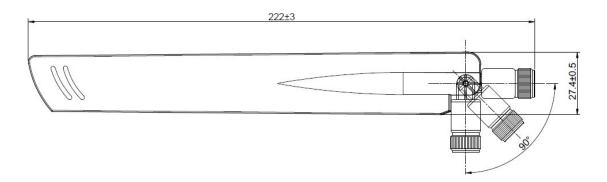
Mechanical					
Dimension (mm)	222.0				
Connector Type	SMA (Plug)				
Material	ABS				
Weight (g)	34.1				

Environmental					
Temperature Range (°C)	-30 to 75				
Humidity	Non-condensing 65°C 95% RH				
RoHS Compliant					

## **Mechanical Drawing**

Unit : mm



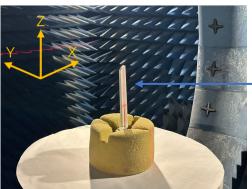


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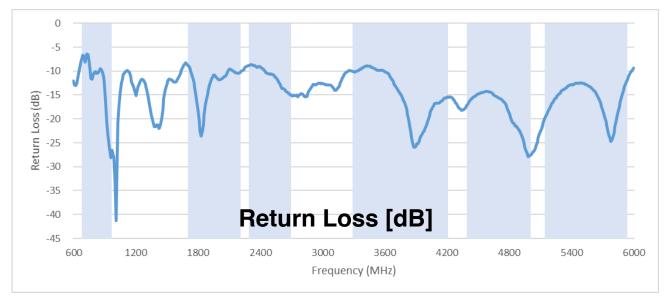


### **Charts In Free Space**

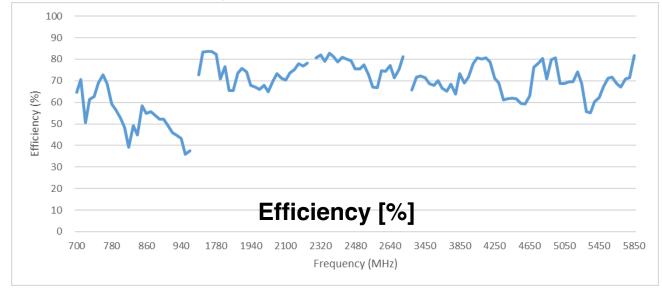


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Test setup, measurement performed in 3D anechoic chamber.



#### Blue background represents frequency response.

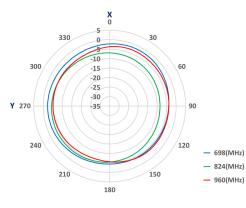


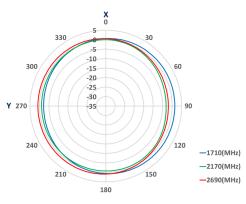
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## **Radiation Pattern - Free Space**

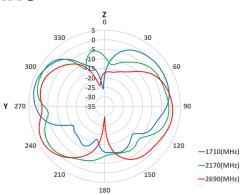




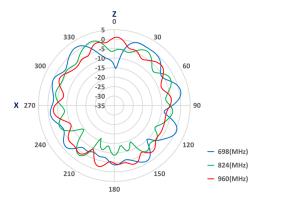


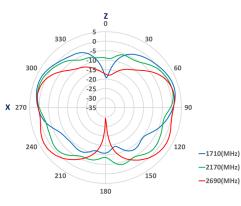
Z 0 330 30 -10 300 -15 60 -20 -25 -30 Y 270 -35 240 120 698(MHz) 824(MHz) 210 150 960(MHz) 180





**XZ - Plane** 

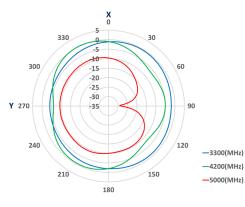


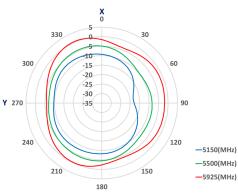




# **Radiation Pattern - Free Space**



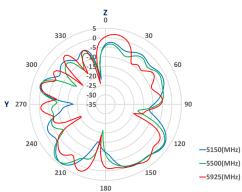




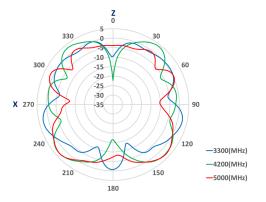
—5500(MHz) —5925(MHz)

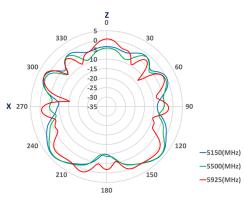
Z 0 330 20 0 300 -15 -20 -25 -30 Y 270 240 120 -3300(MHz) -4200(MHz) 210 150 -5000(MHz) 180

**YZ** - Plane



**XZ - Plane** 







Revisions							
Rev.	Description	Date	ECN	Approval			
А	Initial Release	2023-02-20	ST0428-40-001-B-RA00	ATC			

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