

#### Datasheet

# Amphenol

#### 2.4-2.5GHz & 5.15-7.2GHz

Internal Antenna

#### Features:

Wi-Fi 6E, also including Wi-Fi 6E new 6GHz band, Bluetooth, ZigBee Adhesive backing on the PCB simplifies mounting within the device Global frequency coverage

#### 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	
PCB Antenna	Orr	nni	Linear		1W		50Ω	
Frequency (GHz)		2.4~2.5		5.15~5.825		5	5.925~7.125	
Return Loss (dB)		< -10		<-10		< -10		
Peak Gain (dBi)		3.4		4.0			4.2	
Average Gain (dB)		-1.7		-1.8			-1.6	
Average Efficiency (%)		68		67			70	



 $50.4\times13.8\times0.7mm$ 

**PCB** Antenna



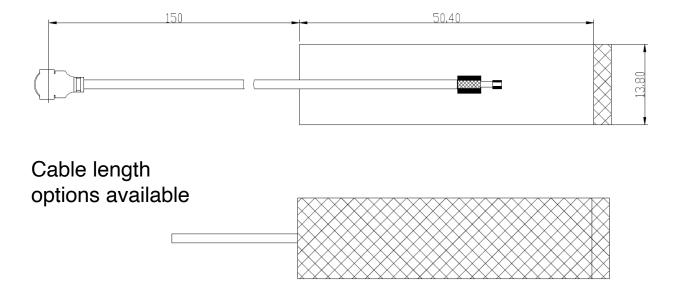


Mechanical Specifications							
Environmental							
Temperature Range	e (°C)	-40 to 65					
Humidity		Non-condensing 65°C 95% RH					
RoHS Compliant							
			_		_	-	
Part Number	Dimeı (m		Weight (q)	Conn. Type	Cable Type	Material	Adhesive

	(mm)	(g)	туре	туре		
ST1225-20-001-A	$50.4\times13.8\times0.7$	1.8	I-PEX MHF 1	Ø 1.13	FR-4	Sony G9000

### **Mechanical Drawing**

Unit : mm

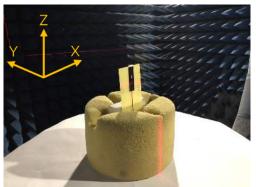


#### ST1225-20-001-A

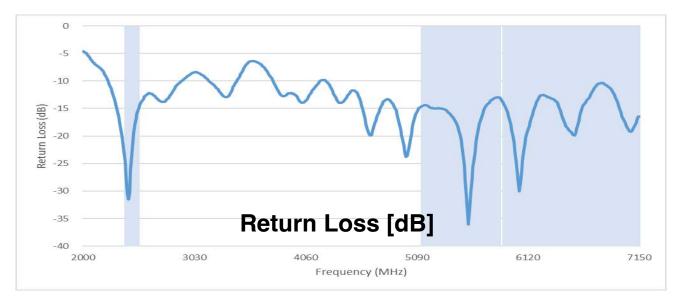


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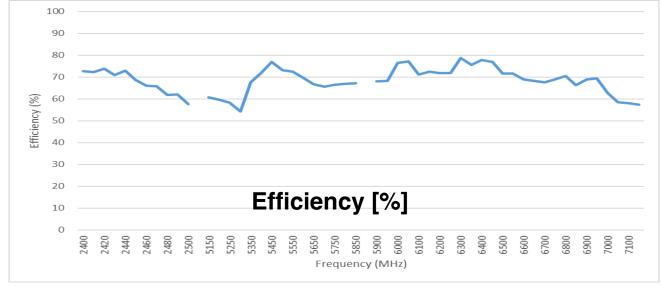
#### **Charts In Free Space**



Test setup, measurement performed in 3D anechoic chamber.



Blue background represents frequency response.

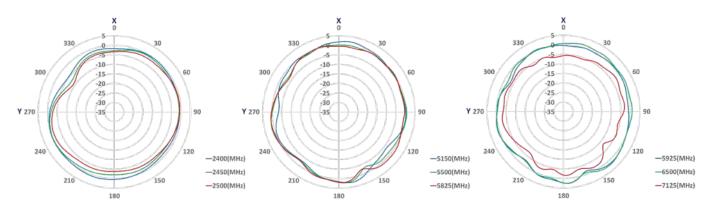




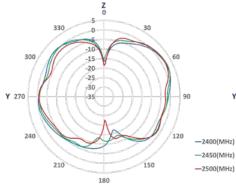


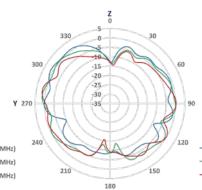
## **Radiation Pattern - Free Space**

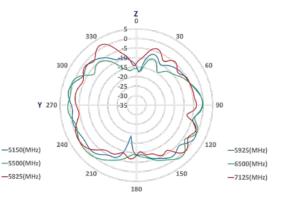
**XY - Plane** 



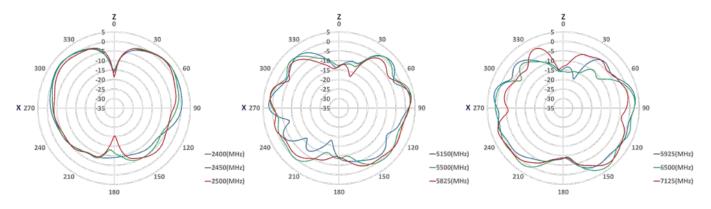
YZ - Plane







**XZ - Plane** 





Revisions							
Rev	Description	Date	ECN	Approval			
А	Initial Release	2022-10-25	ST1225-20-001-A -RA00	ATC			
В	Additional info added. RF Performance update.	2023-01-02	ST1225-20-001-A -RB00	ATC			

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