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Datalogic Joya Touch 22 Antenna Datasheet

Model Name	Joya Touch 22
Brand	Datalogic-USI
Revision	Ver. 05
Prepared by	Jack

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1. Abbreviation

1.1 Abbreviation and Definitions

VSWR : Voltage Standing Wave Ratio

Gain : Shall be read as Realized Gain.

dBi : Antenna gain in dB relative to an isotropic source.

MHz : Megahertz

GHz : Gigahertz

3D : Three-Dimensional

2. ELECTRICAL PROPERTIES

2.1 Electrical Specification

	BT/Wi-Fi main	Wi-Fi aux
Antenna model name	JOYA TOUCH 22 main antenna	JOYA TOUCH 22 aux antenna
Antenna Type	PIFA	PIFA
Antenna technology	PCB	LDS
Radiator elements	Main	Aux
Frequency bands	2400-2485 MHz & 5150-5850 MHz	
Reference input impedance	50 Ω	
Maximum input power	1 W	

2.2 Physical and Environmental Specifications

	BT/Wi-Fi main	Wi-Fi aux
Antenna model name	JOYA TOUCH 22 main antenna	JOYA TOUCH 22 aux antenna
RF connector	U.FL	PCB spring
Operating temperature	-20 ~ 70 $^{\circ}\text{C}$	

2.3 Peak gain

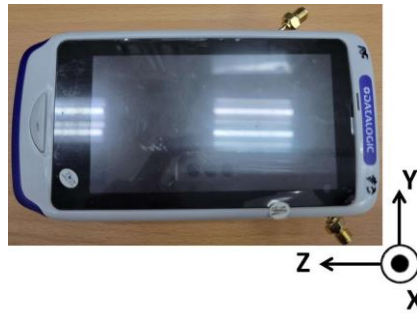
BT/Wi-Fi main

Frequency (MHz)	Horizontal (dBi)	Vertical (dBi)
2400-2485	0.8	-2
5150-5250	1.2	2.1
5250-5350	2.5	3.2
5350-5725	2.8	3.4
5725-5850	1.8	0.8

Wi-Fi aux

Frequency (MHz)	Horizontal (dBi)	Vertical (dBi)
2400-2485	-1.9	1.2
5150-5250	2.0	-1.4
5250-5350	2.6	-1.1
5350-5725	3.8	1.3
5725-5850	3.2	1.1

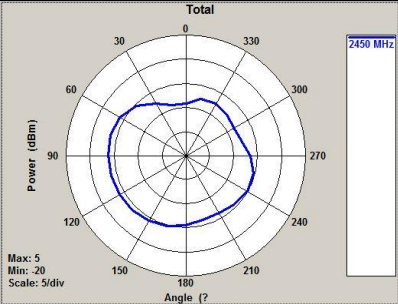
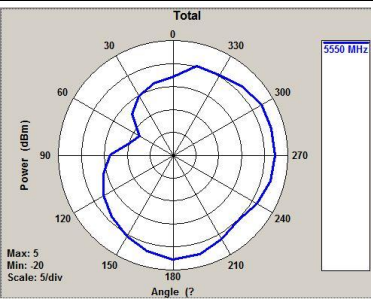
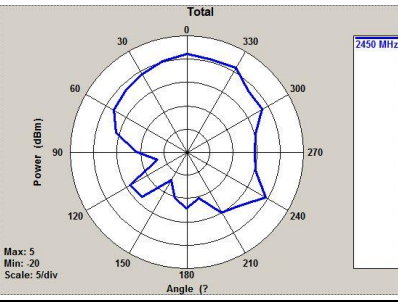
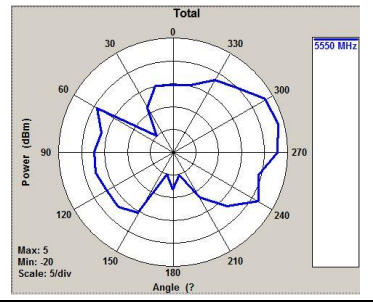
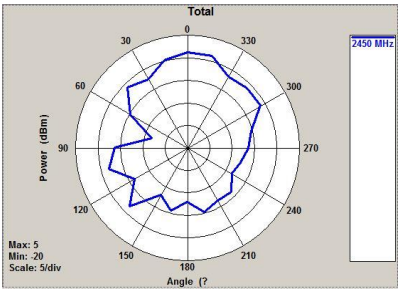
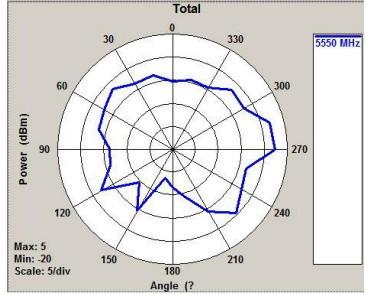
2.4 2D Radiation Pattern



Wi-Fi main

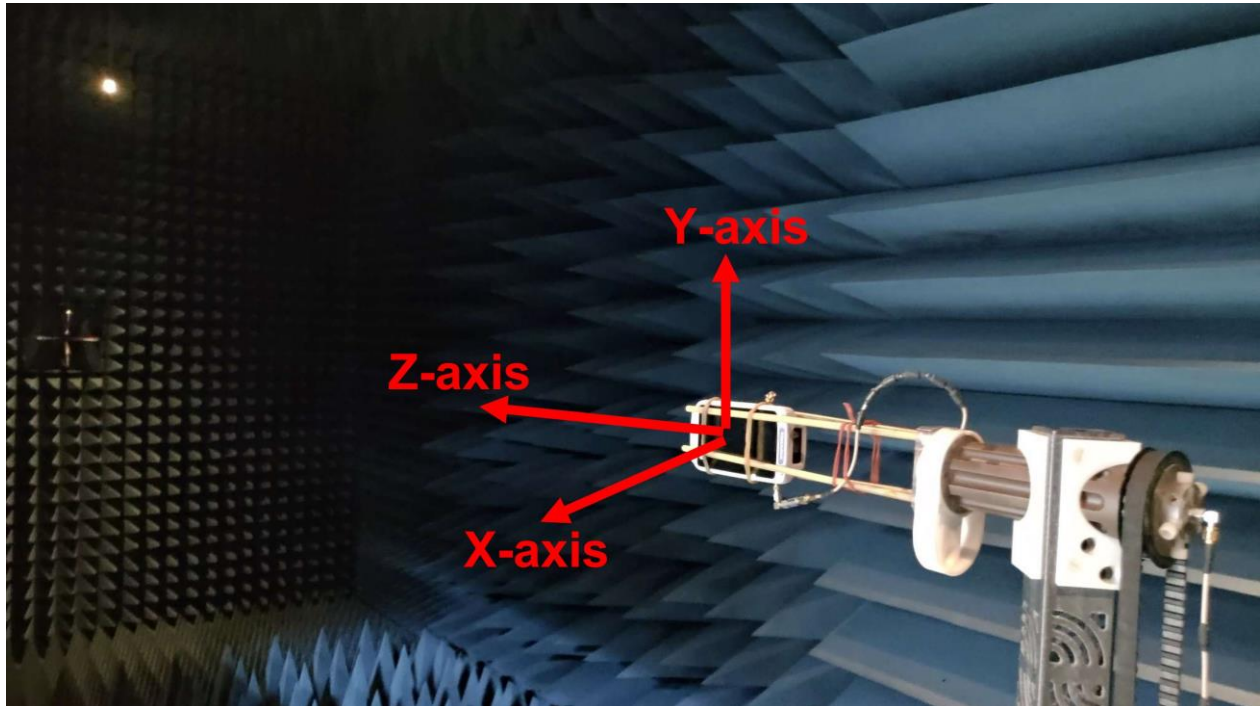
Frequency	2.45 GHz	5.55 GHz
XY		
XZ		
YZ		

Wi-Fi aux

Frequency	2.45 GHz	5.55 GHz
XY		
XZ		
YZ		

3. Test Environment & Equipment

3.1 Test Environment



The co-ordinate system in chamber is defined as follows.
Positive X axis is directed to Door.
Positive Y axis is directed to Rooftop.
Positive Z axis is directed to Horn.

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3.2 Test Equipment

Instrument	Manufacturer	Model No.	Characteristics	Calibration Date	Calibration Due Date
Chamber	ETS	AMS-8500	0.7 GHz~6 GHz	11/July/2022	10/July/2023
Network Analyzer	Agilent	E5071C	9 kHz~8.5 GHz	04/July/2022	03/July/2023
Position Controller	ETS	7001-002	-	NCR	NCR
Multi-Device Controller	ETS	2090	-	NCR	NCR

Test by Universal Scientific Industrial