

Antenna Report

Foxtron

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01. Antenna Electrical Specification

(1) BLE

Model Name		Fusion Domain Combo Ant. Module D21 Fusion Domain Combo Ant. Module D31H Fusion Domain Combo Ant. Module D31F		
Brand Name		JEBSEE ELECTRONICS CO., LTD		
Brand Address		No. 24-3, Xinle Rd., South Dist., Tainan City, Taiwan (R.O.C.)		
Antenna Type		Monopole		
Antenna Gain	Frequency (GHz)	2.4	2.45	2.5
	Average (dBi)	-3.26	-3.28	-4.02
	Peak (dBi)	2.41	2.53	1.00
Cable Type		RG 174		
Cable Length		950 mm / 1050 mm		
• D21, D31H and D31F with the same antenna but different cable length. • Antenna gain is performed with 950 mm cable length.				

(2) UWB

- UWB1

Model Name		Fusion Domain Combo Ant. Module D21 Fusion Domain Combo Ant. Module D31H Fusion Domain Combo Ant. Module D31F					
Brand Name		JEBSEE ELECTRONICS CO., LTD					
Brand Address		No. 24-3, Xinle Rd., South Dist., Tainan City, Taiwan (R.O.C.)					
Antenna Type		Monopole					
Antenna Gain	Frequency (GHz)	7.7	7.8	7.9	8.1	8.2	8.3
	Average (dBi)	-3.83	-4.17	-3.69	-3.55	-4.51	-3.21
	Peak (dBi)	5.13	4.87	4.50	5.41	3.60	4.39
Cable Type		RTK 044					
Cable Length		950 mm / 1050 mm					
• D21, D31H and D31F with the same antenna but different cable length. • Antenna gain is performed with 950 mm cable length.							

- **UWB2**

Model Name		Fusion Domain Combo Ant. Module D21 Fusion Domain Combo Ant. Module D31H Fusion Domain Combo Ant. Module D31F					
Brand Name		JEBSEE ELECTRONICS CO., LTD					
Brand Address		No. 24-3, Xinle Rd., South Dist., Tainan City, Taiwan (R.O.C.)					
Antenna Type		Monopole					
Antenna Gain	Frequency (GHz)	7.7	7.8	7.9	8.1	8.2	8.3
	Average (dBi)	-4.28	-4.27	-3.66	-2.89	-4.11	-2.59
	Peak (dBi)	4.11	3.19	4.20	6.13	3.88	5.87
Cable Type		RTK 044					
Cable Length		950 mm / 1050 mm					
• D21, D31H and D31F with the same antenna but different cable length. • Antenna gain is performed with 950 mm cable length.							

02. Antenna Mechanical Specification

(1) Fusion Domain Combo Ant. Module D21

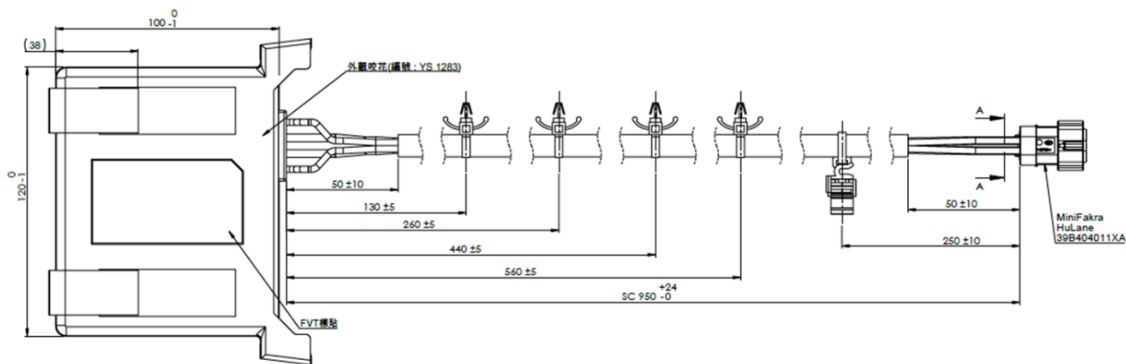


Figure 1. Top View

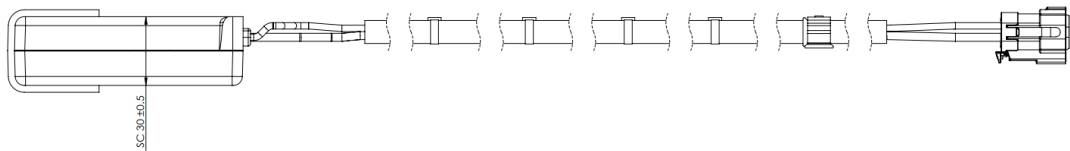


Figure 2. Side View

(2) Fusion Domain Combo Ant. Module D31H/D31F

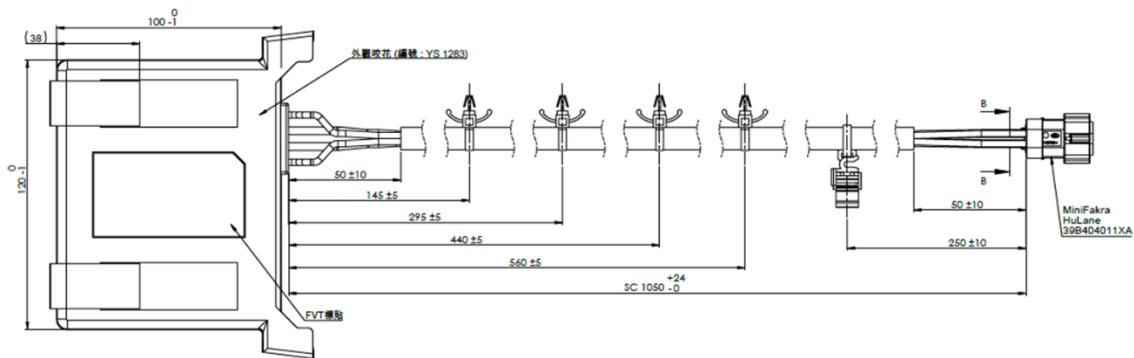


Figure 3. Top View

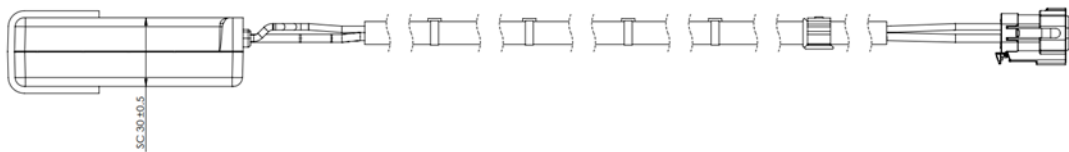


Figure 4. Side View

(3) Connector Pin Define

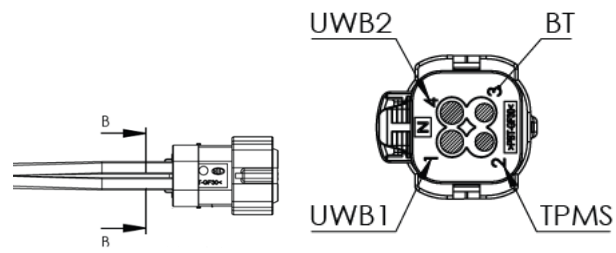


Figure 5. Sectional View B-B

03. Antenna Radiation Pattern – 2D Plots

(1) BLE

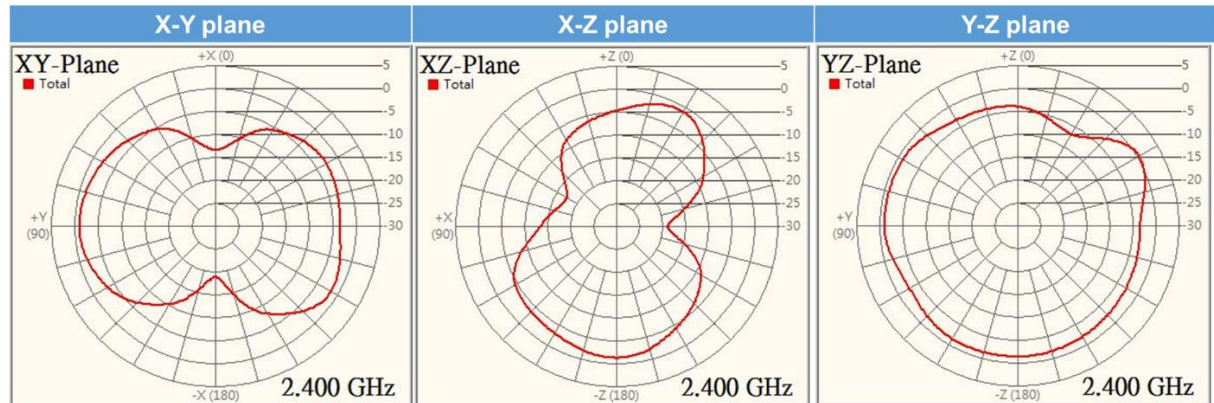


Figure 6. BLE Gain at 2.4GHz

(2) UWB

- UWB1

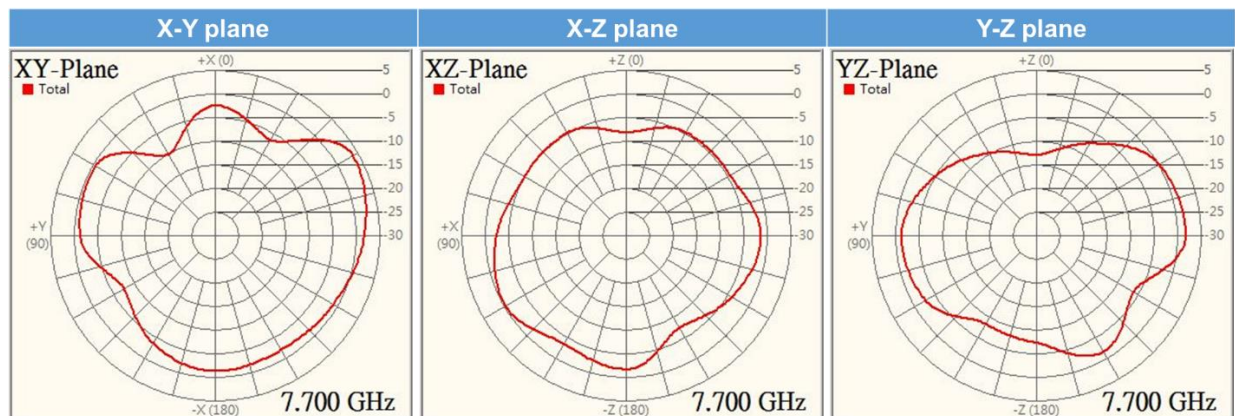


Figure 7. UWB1 Gain at 7.7GHz

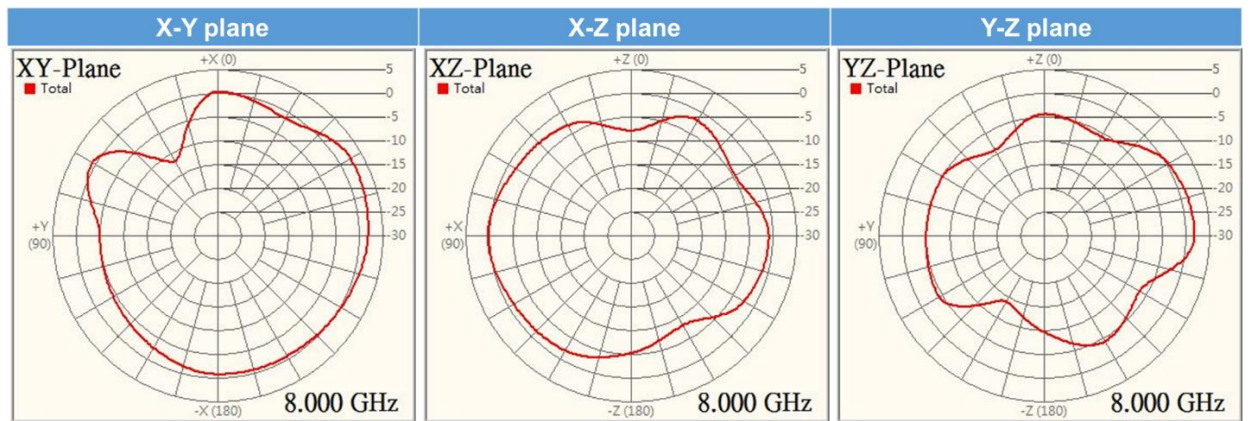


Figure 8. UWB1 Gain at 8GHz

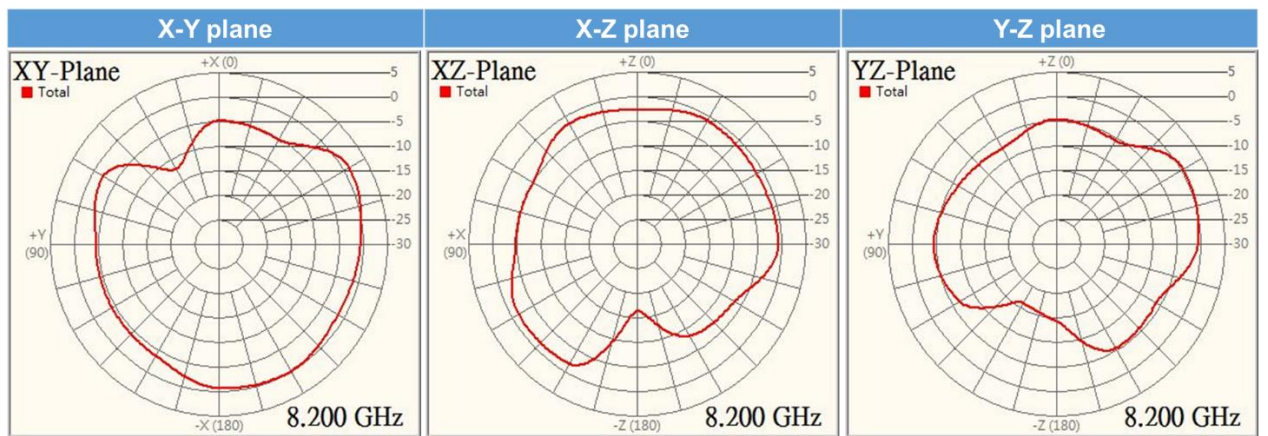


Figure 9. UWB1 Gain at 8.2GHz

- **UWB2**

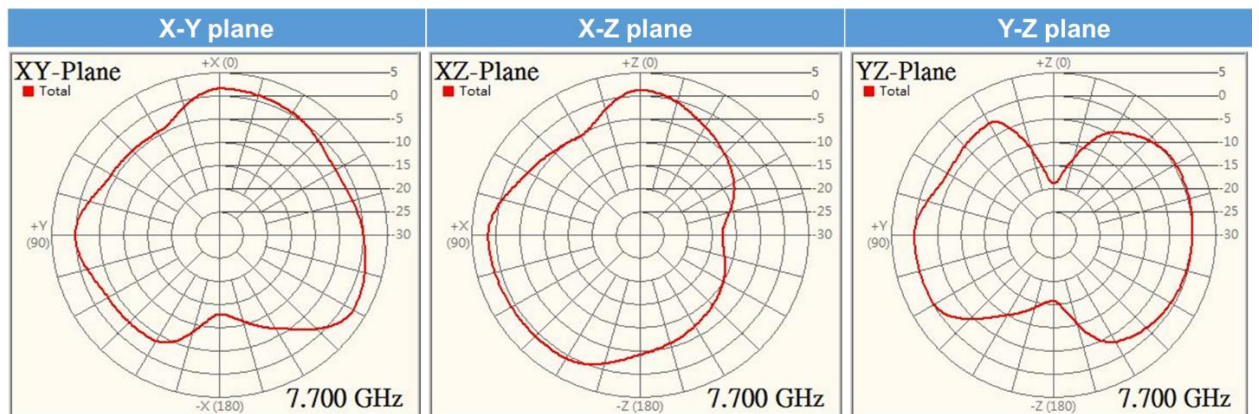


Figure 10. UWB2 Gain at 7.7GHz

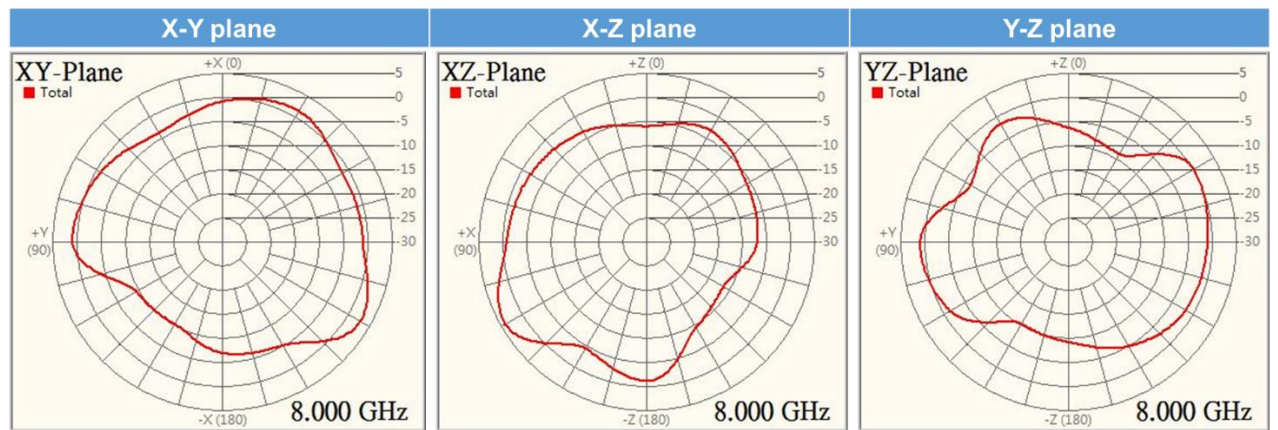


Figure 11. UWB2 Gain at 8GHz

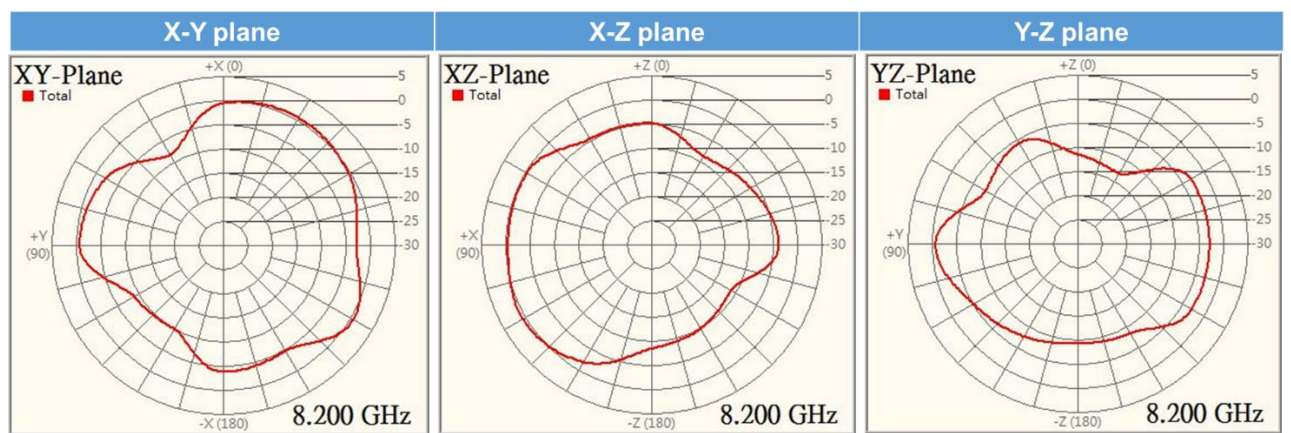


Figure 12. UWB2 Gain at 8.2GHz