

Bluetooth Antenna

1. Specification

Antenna Type	Inverted-F PCB Antenna
Nominal Center Frequency	2440MHz
Impeadance	50Ω (nominal)
Antenna Gain	-2.4 dBi Peak
Alloable Input Power	500mW or less (Average)

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測定内容/Measurement content

1.測定条件/Measurement condition

- ・ 測定ANT/Measurement ANT： BBHA9120 (0.5～6GHz)
- ・ 基準ANT/Reference ANT： MA5612B4 (2.25～2.6GHz)
- ・ 測定器/measuring instrument： E8357A (Agilent network analyzer)

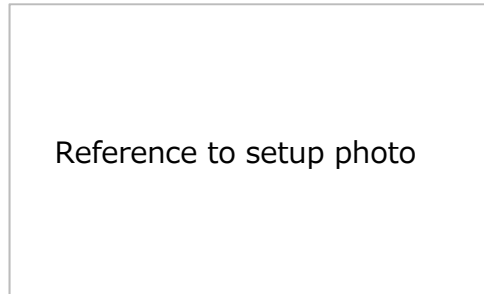
- ・ 測定距離/Measured distance： 3m (高さ1m/1m high)
- ・ 測定範囲/range of measurement： 360度/1度ステップ/360 degree/1 degree step
- ・ 測定レイアウト/Measurement layout： 測定環境は以下のレイアウトで測定
The measurement environment is measured with the following layout.

See separate setup photo for layout of measurement environment

2.測定方向/measurement direction

XY平面

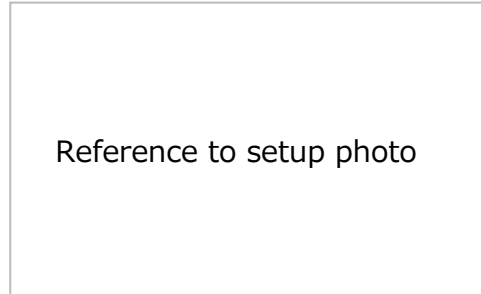
XY plane



(RX-ANT_View)

ZX平面

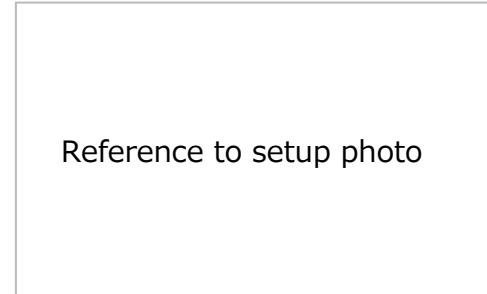
ZY plane



(RX-ANT_View)

YZ平面

YZ plane



(RX-ANT_View)

- ・測定日時/test dates : 20. May. 2022
- ・測定者/names of test personnel : Ohtsuka, Yasue @DENSO TEN Limited
- ・ソフトウェア/names of commercial test software being used : TN0041A Version:1.0

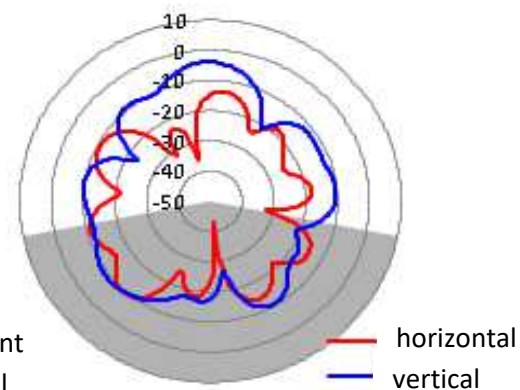
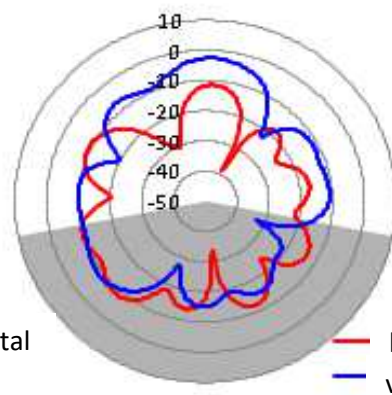
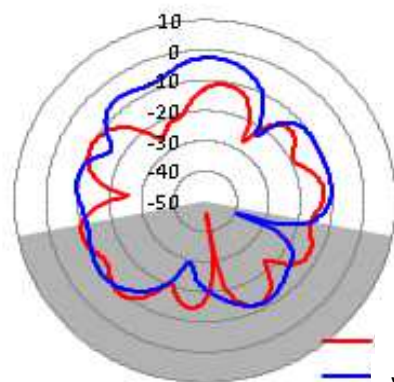
3. アンテナゲイン/antenna gain

frequency [MHz]	Plane	plane of polarizatio	±100° Average	±100° true mean	Composite true value	Composite [dBi]	DIP[dBi]	DIP-AVE [dB]
2402	XY	HOR.	-14.38	0.04	0.20	-7.01	-45.93	38.92
		VER.	-7.89	0.16				
	XZ	HOR.	-7.04	0.20	0.23	-6.34	-36.87	30.53
		VER.	-14.61	0.03				
2441	XY	HOR.	-15.13	0.03	0.18	-7.35	-38.57	31.22
		VER.	-8.14	0.15				
	XZ	HOR.	-7.96	0.16	0.19	-7.15	-54.95	47.80
		VER.	-14.87	0.03				
2480	XY	HOR.	-16.79	0.02	0.13	-8.71	-43.22	34.51
		VER.	-9.45	0.11				
	XZ	HOR.	-8.44	0.14	0.16	-7.98	-42.52	34.54
		VER.	-17.93	0.02				

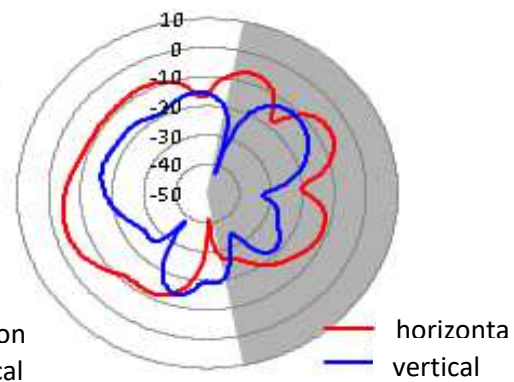
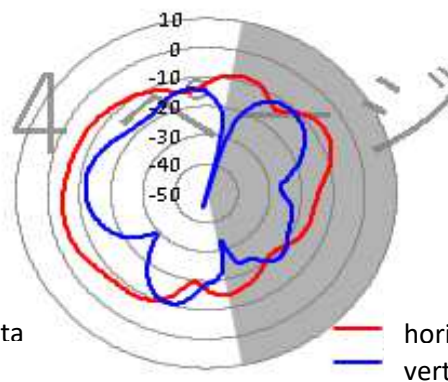
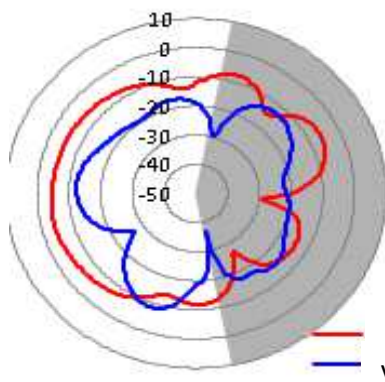
*Correction during measurement: cable loss = 0.35 dB After correction **-7.01 dBi Ave**
-2.4 dBi Max Peak

Radio wave radiation pattern (directivity graph)

XY-plane @2402/2441/2480 MHz



ZX-plane @2402/2441/2480 MHz



YZ-plane @2402/2441/2480 MHz

