

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)

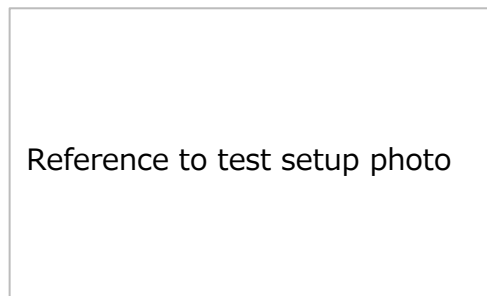
- ・測定距離/Measured distance： 3m (高さ1m/1m high)
- ・測定範囲/range of measurement： 360度/1度ステップ/360 degree/1 degree step
- ・測定レイアウト/Measurement layout： 測定環境は以下のレイアウトで測定
The measurement environment is measured with the following layout.

See test setup photo file for layout of measurement environment

2.測定方向/measurement direction

XY平面

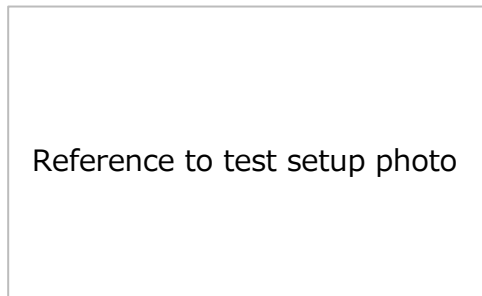
XY plane



(RX-ANT_View)

ZX平面

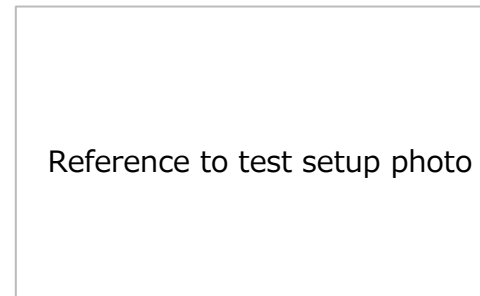
ZY plane



(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 : TN0046A Version:1.0

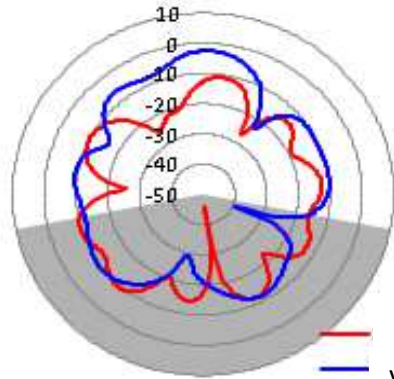
3.アンテナゲイン/antenna gain

frequency [MHz]	Plane	plane of polarizatio	$\pm 100^\circ$ Average	$\pm 100^\circ$ 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		
		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		
		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		
		VER.	-17.93	0.02				

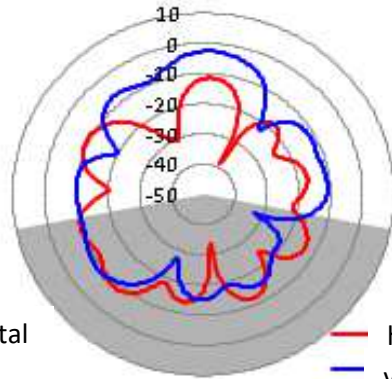
*Correction during measurement: cable loss = 0.35 dB After correction **-7.01 dBi Ave**
-2.4 dBi Max Peak

Radio wave radiation pattern (directivity graph)

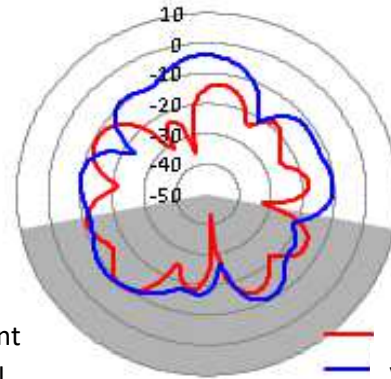
XY-plane @2402/2441/2480 MHz



— horizontal
— vertical

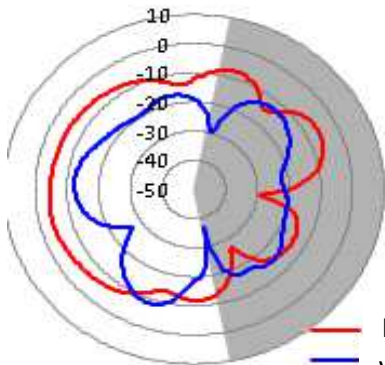


— horizont
— vertical

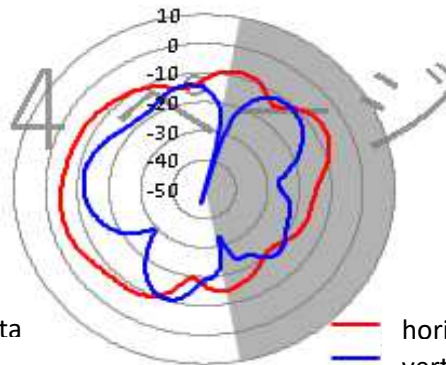


— horizontal
— vertical

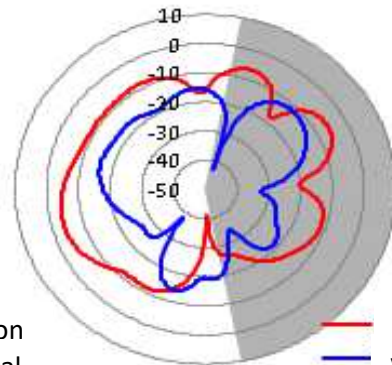
ZX-plane @2402/2441/2480 MHz



— horizonta
— vertical

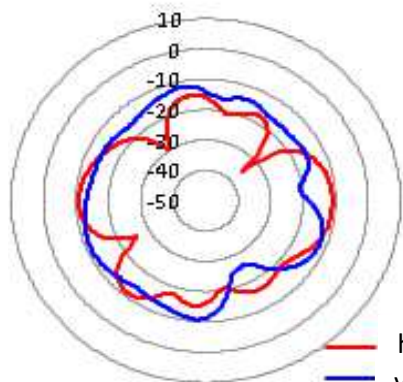


— horizon
— vertical

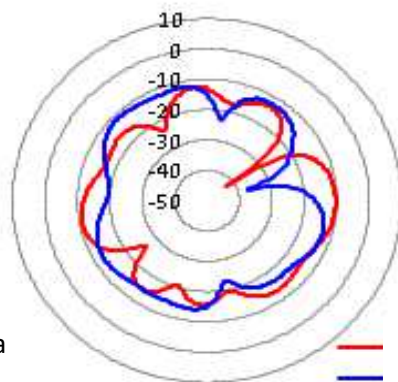


— horizonta
— vertical

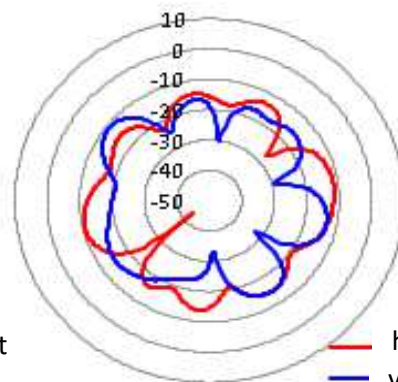
YZ-plane @2402/2441/2480 MHz



— horizontal
— vertical



— horizont
— vertical



— horizont
— vertical