

# Each of Antenna Overview

	Model	Type	Material	Polarization	Support Frequency[GHz]	Size[mm]
Wi-Fi Antenna 0	WL_ANT0_6E_7911	Inverted F	Metal on PCB	Linear	2.4 ~ 2.5, 5.0 ~ 7.2	28.3x11.7x5.2
Wi-Fi Antenna 1	WL_ANT1_6E_7911	Inverted F	Metal on PCB	Linear	2.4 ~ 2.5, 5.0 ~ 7.2	28.3x11.7x5.2
Bluetooth Internal Antenna	BT_ANT_7911	Inverted F	Metal on PCB	Linear	2.4 ~ 2.5	26.0x11.0x4.76
Bluetooth External Antenna	BT_EXT_ANT_7911	Slit	PCB	Linear	2.4 ~ 2.5	55.0x11.0x1.0

- Manufacturer: Panasonic Entertainment & Communication Co., Ltd.  
1-10-12, Yagumo-higashi-machi, Moriguchi City, Osaka, Japan
- Brand: Panasonic

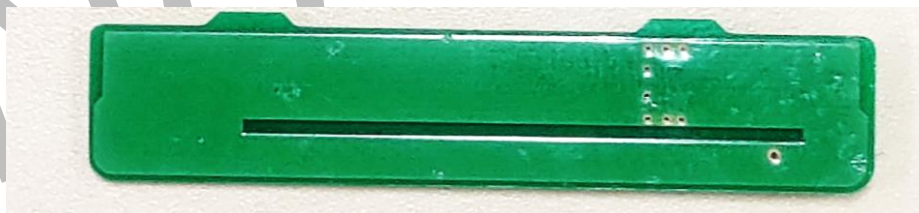
Bluetooth Antenna



Wi-Fi Antenna(Wi-Fi0)

Wi-Fi Antenna(Wi-Fi1)

Ext. Bluetooth Antenna



Size x x [mm]



# Wi-Fi Antenna Average and MAX Gain

Unit[dBi]

Wi-Fi 0

		2.40	2.45	2.50	5.2	5.6	5.8	5.9	6.50	6.8	7.00
XY	Average	-6.1	-6.8	-7.2	-5.7	-6.1	-6.6	-6.4	-4.9	-5.9	-5.5
	MAX	-3.5	-3.2	-4.9	-3.6	-3.0	-2.6	-1.2	1.1	0.3	0.8
YZ	Average	-3.5	-5.4	-5.4	-7.7	-7.1	-7.9	-7.1	-7.0	-7.8	-7.7
	MAX	-1.2	-2.8	-3.2	-1.3	-2.7	-3.0	-2.7	-3.1	-5.0	-2.6
ZX	Average	-5.4	-7.3	-7.1	-8.5	-6.8	-6.7	-5.8	-3.4	-3.7	-3.4
	MAX	-1.5	-3.9	-3.4	-3.1	-2.0	-1.6	-0.3	1.6	2.2	0.5

Wi-Fi 1

		2.40	2.45	2.50	5.2	5.6	5.8	5.9	6.50	6.8	7.00
XY	Average	-6.2	-7.5	-9.3	-5.6	-6.3	-6.4	-6.5	-5.2	-5.1	-5.5
	MAX	-3.6	-4.5	-6.4	-3.2	-3.1	-2.0	-1.6	1.7	2.7	1.2
YZ	Average	-2.9	-5.6	-7.3	-8.2	-9.0	-7.9	-8.1	-7.6	-8.2	-9.1
	MAX	-0.2	-2.8	-3.7	-1.5	-4.2	-3.9	-4.2	-2.0	-2.2	-2.5
ZX	Average	-4.6	-6.6	-8.5	-8.7	-7.1	-6.2	-5.9	-2.7	-2.4	-3.5
	MAX	-0.4	-3.5	-5.2	-3.1	-0.9	-0.7	-0.1	1.9	1.6	0.6

# Wi-Fi Antenna Average and MAX Gain

Unit[dBi]

Wi-Fi 0

XY

		2.40	2.45	2.50	5.2	5.6	5.8	5.9	6.50	6.8	7.00
V pol.	Average	-9.6	-6.9	-7.7	-5.7	-6.2	-6.9	-7.2	-5.3	-6.1	-6.0
	MAX	-4.8	-3.2	-5.1	-3.6	-3.0	-2.6	-1.2	1.1	0.3	0.8
H pol.	Average	-7.6	-10.7	-9.6	-13.7	-15.0	-16.6	-16.3	-16.5	-16.4	-15.4
	MAX	-3.5	-6.3	-4.9	-6.1	-7.3	-8.6	-5.9	-7.1	-7.5	-6.9

YZ

V pol.	Average	-9.6	-6.9	-7.7	-5.7	-6.2	-6.9	-7.2	-5.3	-6.1	-6.0
	MAX	-4.8	-3.2	-5.1	-3.6	-3.0	-2.6	-1.2	1.1	0.3	0.8
H pol.	Average	-7.6	-10.7	-9.6	-13.7	-15.0	-16.6	-16.3	-16.5	-16.4	-15.4
	MAX	-3.5	-6.3	-4.9	-6.1	-7.3	-8.6	-5.9	-7.1	-7.5	-6.9

ZX

V pol.	Average	-9.6	-6.9	-7.7	-5.7	-6.2	-6.9	-7.2	-5.3	-6.1	-6.0
	MAX	-4.8	-3.2	-5.1	-3.6	-3.0	-2.6	-1.2	1.1	0.3	0.8
H pol.	Average	-7.6	-10.7	-9.6	-13.7	-15.0	-16.6	-16.3	-16.5	-16.4	-15.4
	MAX	-3.5	-6.3	-4.9	-6.1	-7.3	-8.6	-5.9	-7.1	-7.5	-6.9

Wi-Fi 1

XY

		2.40	2.45	2.50	5.2	5.6	5.8	5.9	6.50	6.8	7.00
V pol.	Average	-9.6	-6.9	-7.7	-5.7	-6.2	-6.9	-7.2	-5.3	-6.1	-6.0
	MAX	-4.8	-3.2	-5.1	-3.6	-3.0	-2.6	-1.2	1.1	0.3	0.8
H pol.	Average	-7.6	-10.7	-9.6	-13.7	-15.0	-16.6	-16.3	-16.5	-16.4	-15.4
	MAX	-3.5	-6.3	-4.9	-6.1	-7.3	-8.6	-5.9	-7.1	-7.5	-6.9

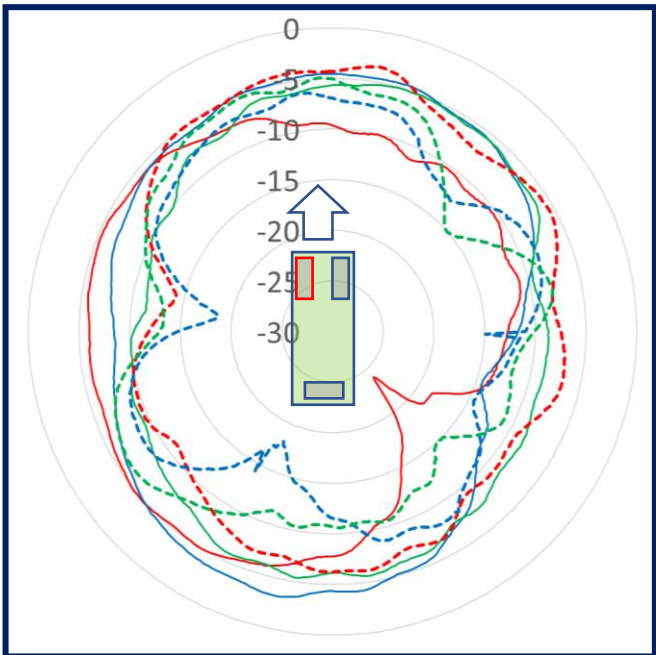
YZ

V pol.	Average	-9.6	-6.9	-7.7	-5.7	-6.2	-6.9	-7.2	-5.3	-6.1	-6.0
	MAX	-4.8	-3.2	-5.1	-3.6	-3.0	-2.6	-1.2	1.1	0.3	0.8
H pol.	Average	-7.6	-10.7	-9.6	-13.7	-15.0	-16.6	-16.3	-16.5	-16.4	-15.4
	MAX	-3.5	-6.3	-4.9	-6.1	-7.3	-8.6	-5.9	-7.1	-7.5	-6.9

ZX

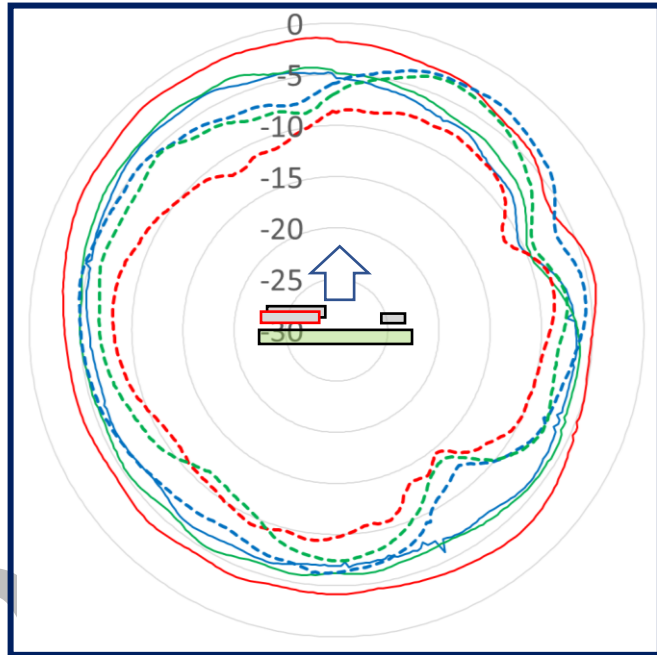
V pol.	Average	-9.6	-6.9	-7.7	-5.7	-6.2	-6.9	-7.2	-5.3	-6.1	-6.0
	MAX	-4.8	-3.2	-5.1	-3.6	-3.0	-2.6	-1.2	1.1	0.3	0.8
H pol.	Average	-7.6	-10.7	-9.6	-13.7	-15.0	-16.6	-16.3	-16.5	-16.4	-15.4
	MAX	-3.5	-6.3	-4.9	-6.1	-7.3	-8.6	-5.9	-7.1	-7.5	-6.9

Wi-Fi0 XY 2.4GHz



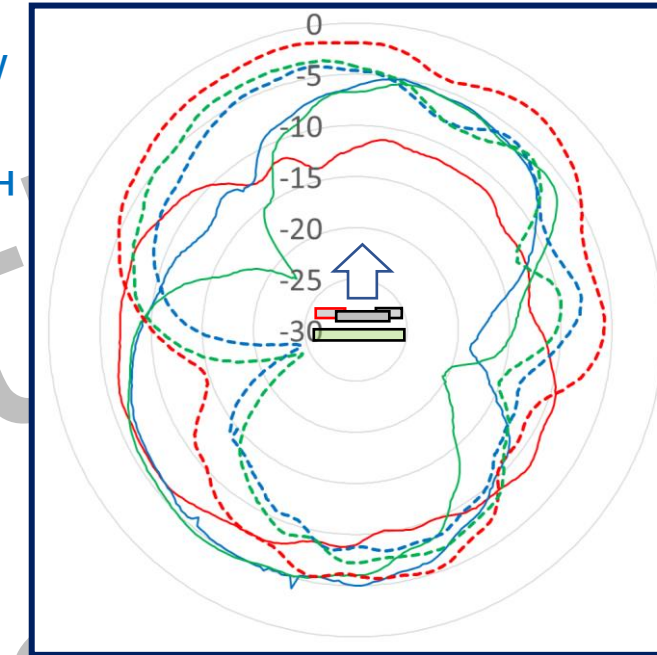
— 2.4G V  
 — 2.45G V  
 — 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H

Wi-Fi0 YZ 2.4GHz



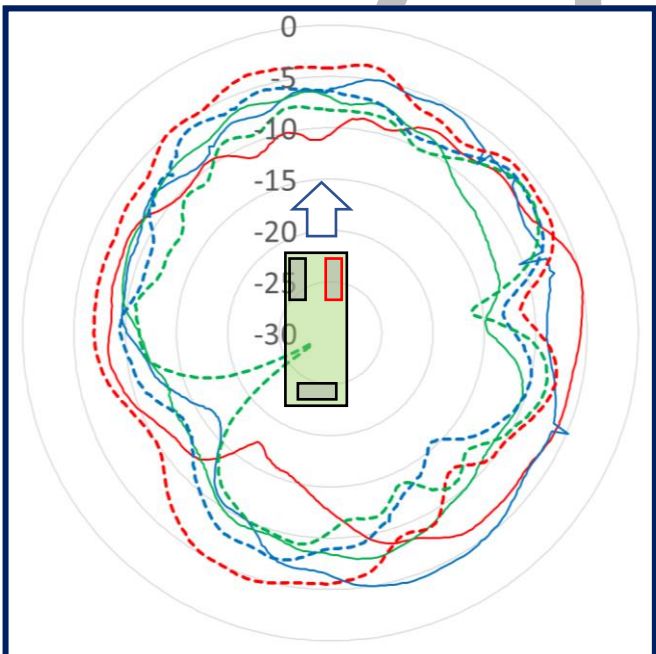
— 2.4G V  
 — 2.45G V  
 — 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H

Wi-Fi0 ZX 2.4GHz



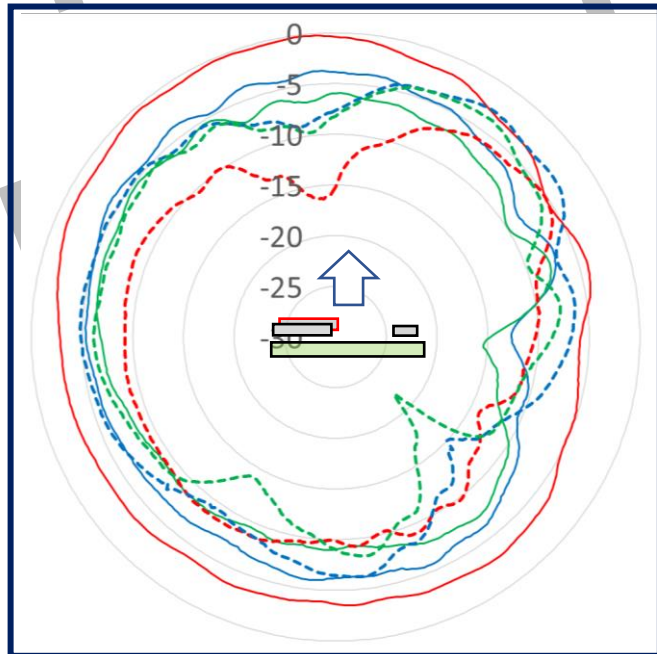
— 2.4G V  
 — 2.45G V  
 — 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H

Wi-Fi1 XY 2.4GHz



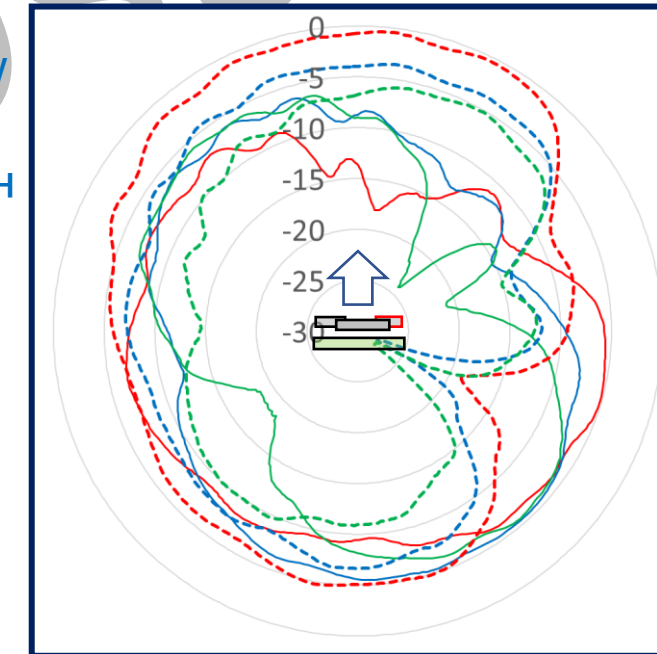
— 2.4G V  
 — 2.45G V  
 — 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H

Wi-Fi1 YZ 2.4GHz



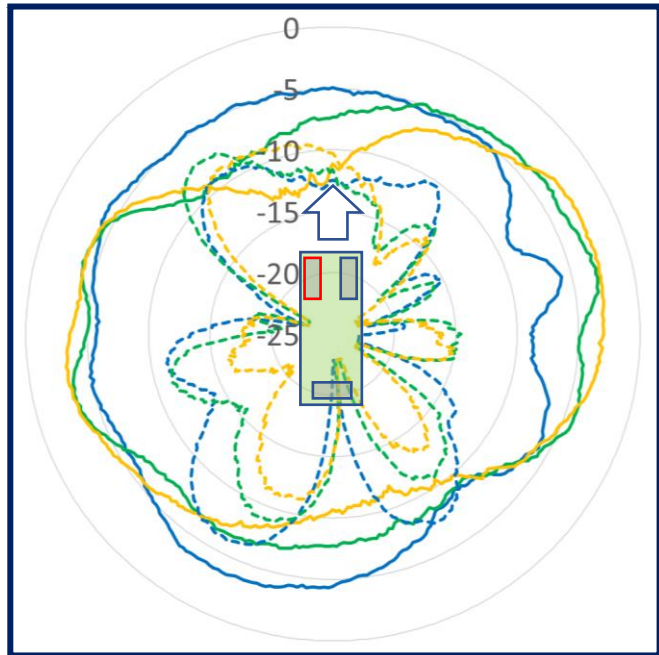
— 2.4G V  
 — 2.45G V  
 — 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H

Wi-Fi1 ZX 2.4GHz



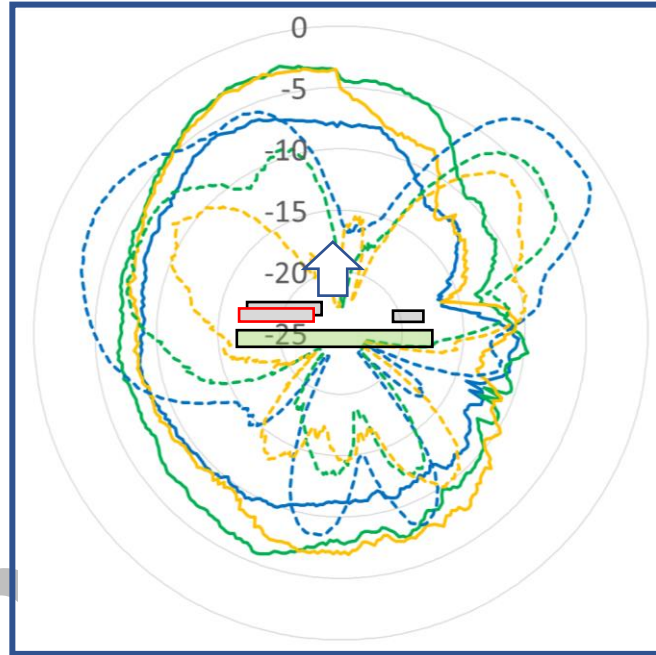
— 2.4G V  
 — 2.45G V  
 — 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H

Wi-Fi0 XY 5GHz



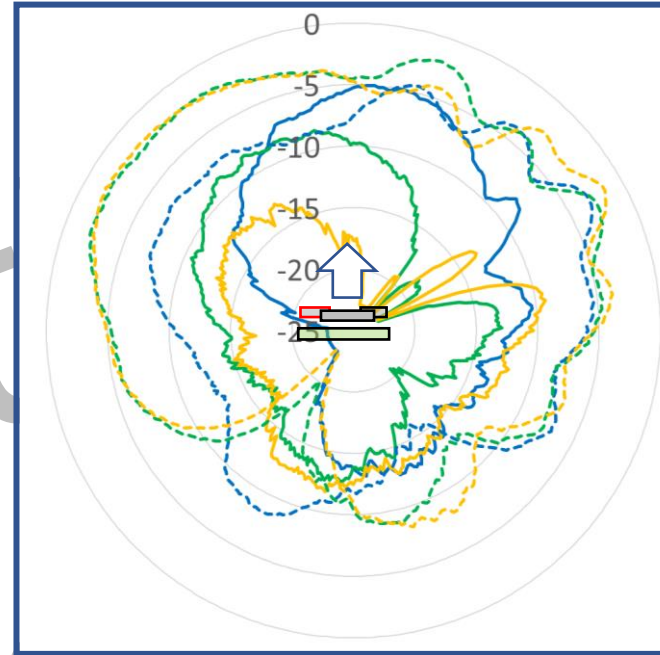
- 5.2G V
- 5.6G V
- 5.8G V
- 5.2G H
- 5.6G H
- 5.8G H

Wi-Fi0 YZ 5GHz



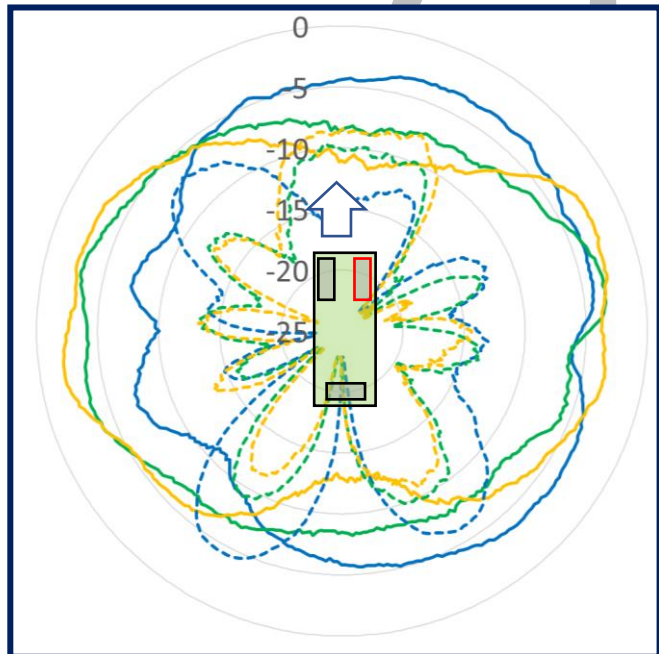
- 5.2G V
- 5.6G V
- 5.8G V
- 5.2G H
- 5.6G H
- 5.8G H

Wi-Fi0 ZX 5GHz



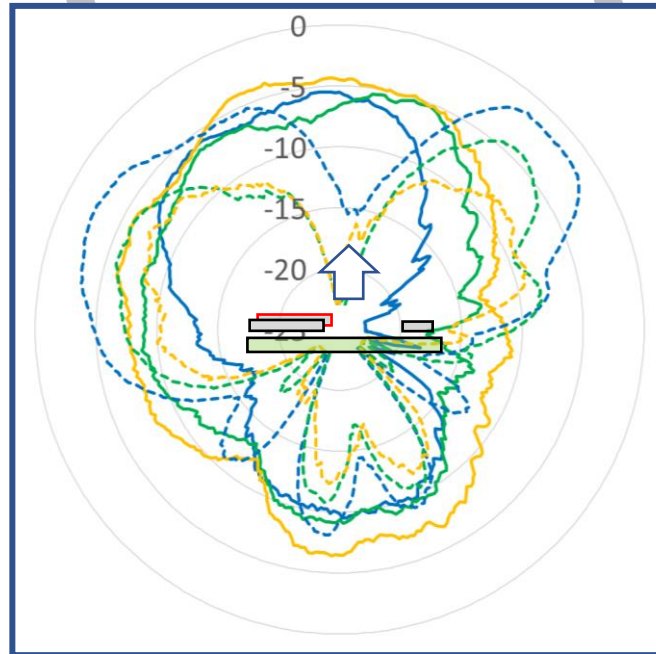
- 5.2G V
- 5.6G V
- 5.8G V
- 5.2G H
- 5.6G H
- 5.8G H

Wi-Fi1 XY 5GHz



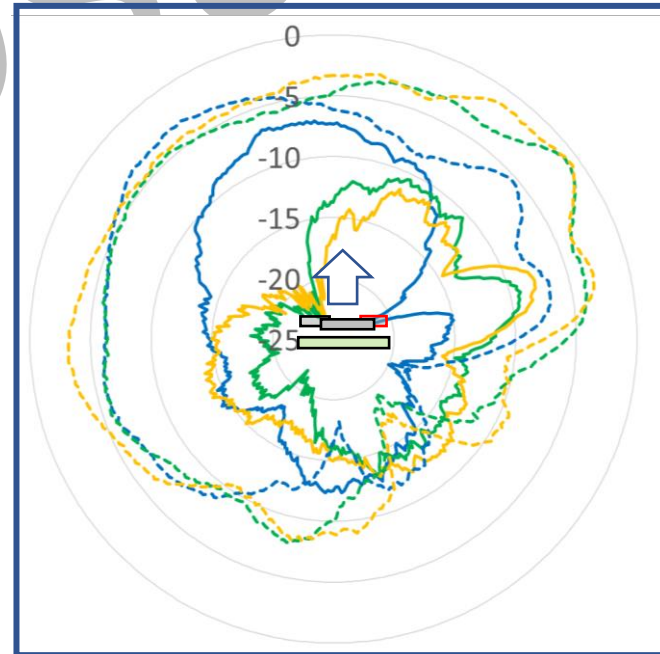
- 5.2G V
- 5.6G V
- 5.8G V
- 5.2G H
- 5.6G H
- 5.8G H

Wi-Fi1 YZ 5GHz



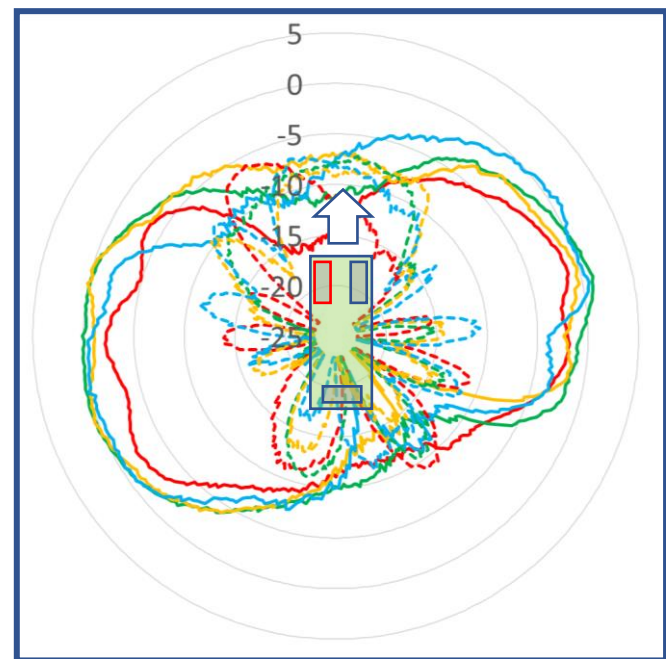
- 5.2G V
- 5.6G V
- 5.8G V
- 5.2G H
- 5.6G H
- 5.8G H

Wi-Fi1 ZX 5GHz



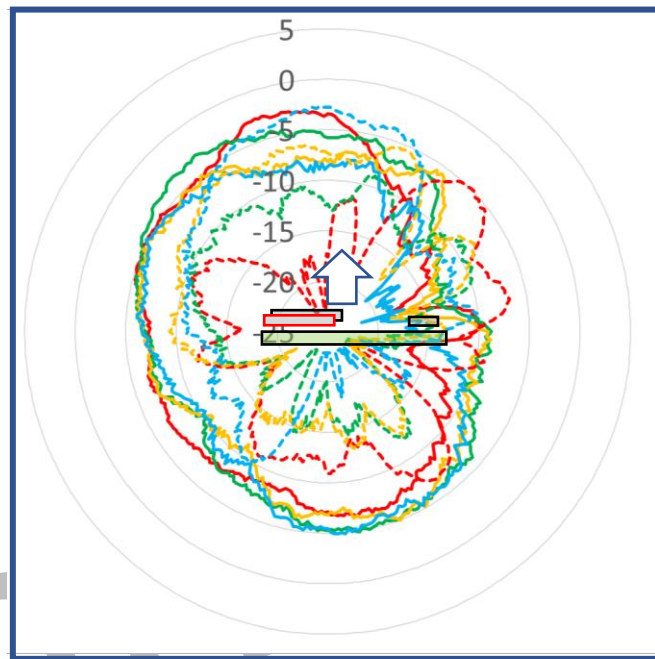
- 5.2G V
- 5.6G V
- 5.8G V
- 5.2G H
- 5.6G H
- 5.8G H

Wi-Fi0 XY 6GHz



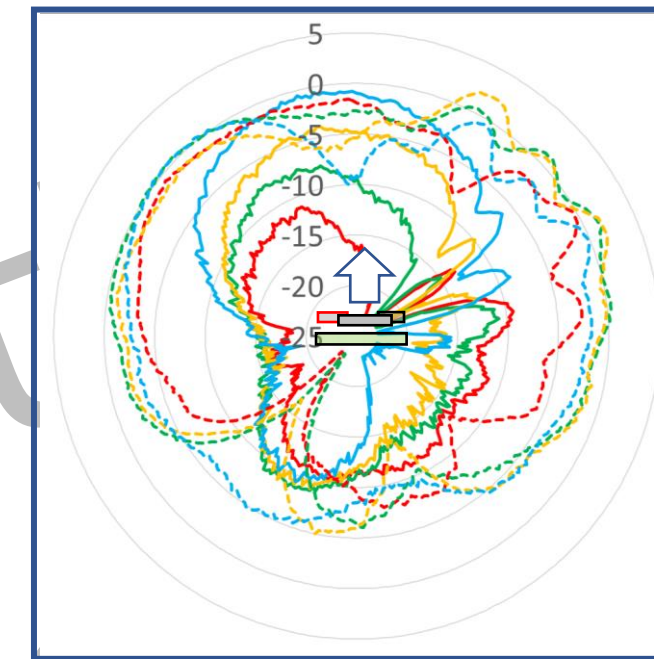
- 5.9G V
- 6.5G V
- 6.8G V
- 7.0G V
- - 5.9G H
- - 6.5G H
- - 6.8G H
- - 7.0G H

Wi-Fi0 YZ 6GHz



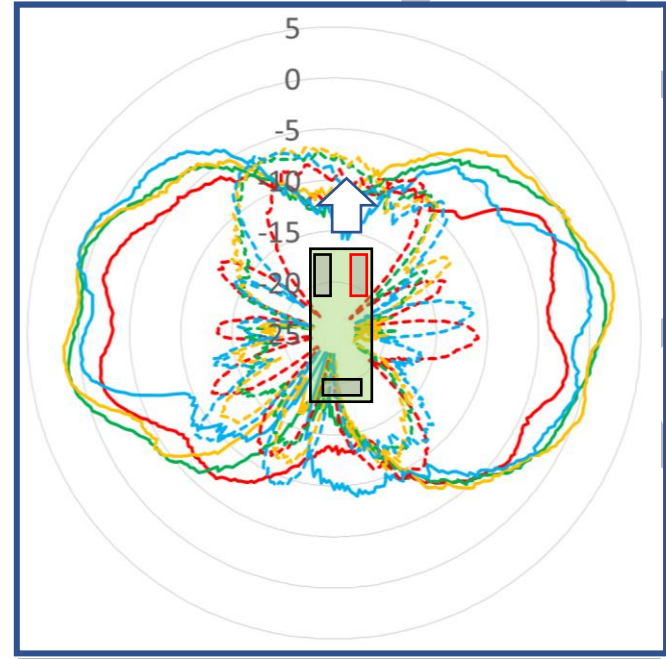
- 5.9G V
- 6.5G V
- 6.8G V
- 7.0G V
- - 5.9G H
- - 6.5G H
- - 6.8G H
- - 7.0G H

Wi-Fi0 ZX 6GHz



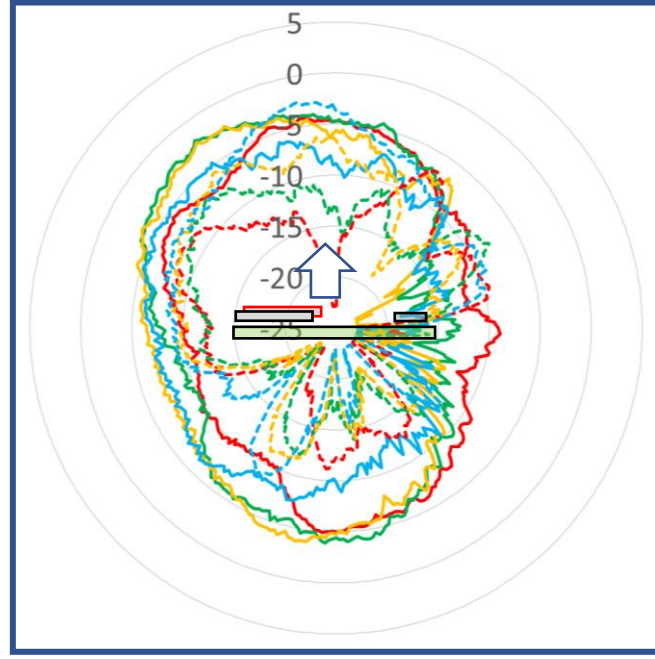
- 5.9G V
- 6.5G V
- 6.8G V
- 7.0G V
- - 5.9G H
- - 6.5G H
- - 6.8G H
- - 7.0G H

Wi-Fi1 XY 6GHz



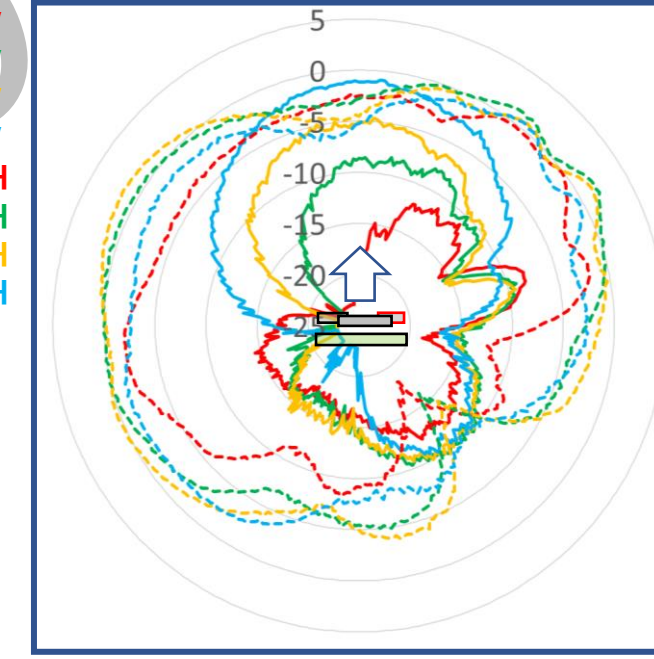
- 5.9G V
- 6.5G V
- 6.8G V
- 7.0G V
- - 5.9G H
- - 6.5G H
- - 6.8G H
- - 7.0G H

Wi-Fi1 YZ 6GHz



- 5.9G V
- 6.5G V
- 6.8G V
- 7.0G V
- - 5.9G H
- - 6.5G H
- - 6.8G H
- - 7.0G H

Wi-Fi1 ZX 6GHz



- 5.9G V
- 6.5G V
- 6.8G V
- 7.0G V
- - 5.9G H
- - 6.5G H
- - 6.8G H
- - 7.0G H

# Internal BT Antenna Average and MAX Gain

Unit[dBi]

	XY		
	2.40	2.45	2.50
Average	-13.9	-15.7	-16.9
MAX	-9.0	-8.1	-10.6

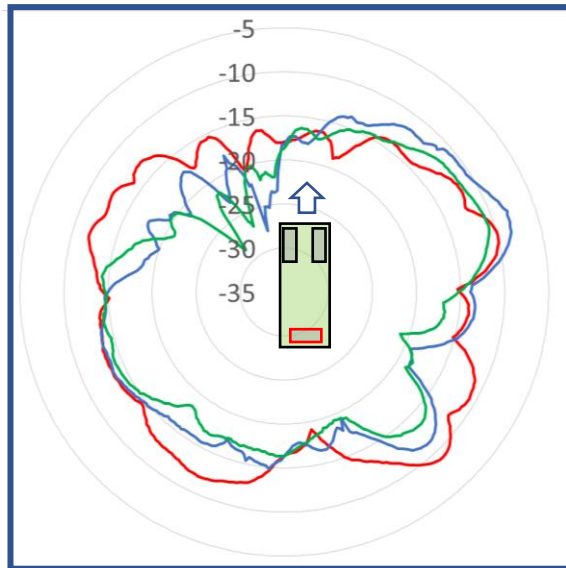
YZ		
2.40	2.45	2.50
-14.5	-15.4	-15.7
-9.8	-10.0	-10.6

ZX		
2.40	2.45	2.50
-13.0	-13.6	-13.9
-8.7	-9.0	-9.1

XY

YZ

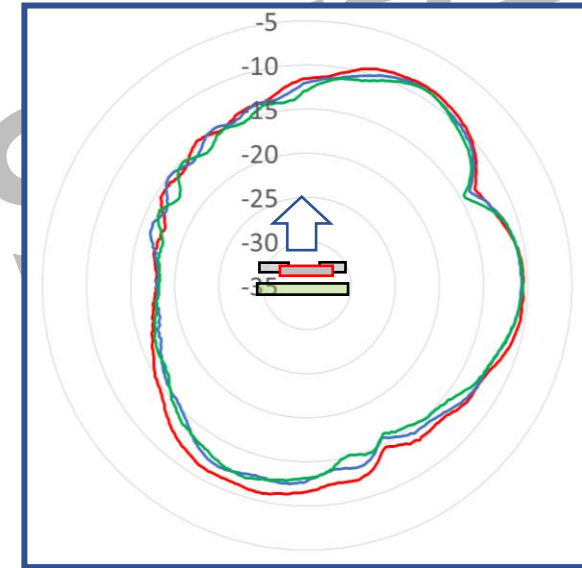
ZX



- 2.4G  
- 2.45G  
- 2.5G



- 2.4G  
- 2.45G  
- 2.5G



- 2.4G  
- 2.45G  
- 2.5G

# Internal BT Antenna Average and MAX Gain

Unit[dBi]

	XY		
	2.40	2.45	2.50
Average	-13.9	-15.7	-16.9
MAX	-9.0	-8.1	-10.6

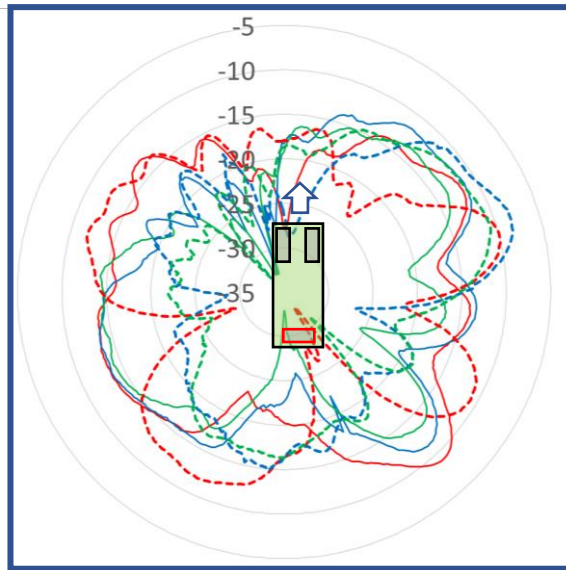
YZ		
2.40	2.45	2.50
-14.5	-15.4	-15.7
-9.8	-10.0	-10.6

ZX		
2.40	2.45	2.50
-13.0	-13.6	-13.9
-8.7	-9.0	-9.1

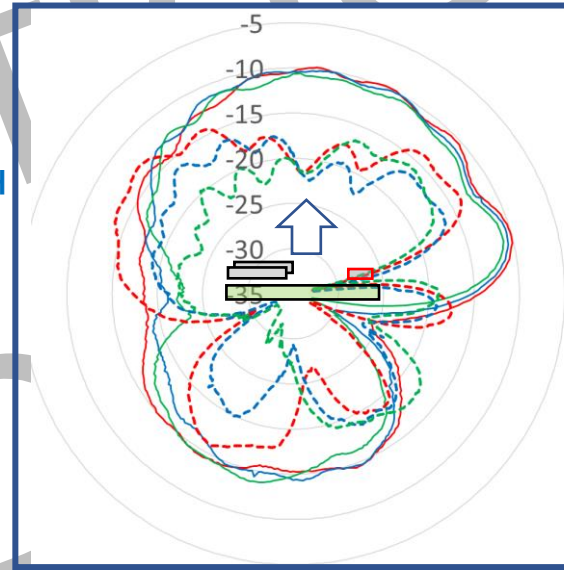
XY

YZ

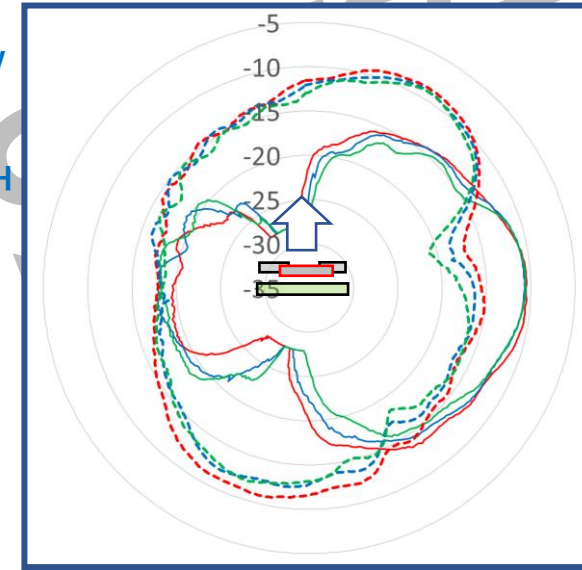
ZX



- 2.4G V  
 - 2.45G V  
 - 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H



- 2.4G V  
 - 2.45G V  
 - 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H



- 2.4G V  
 - 2.45G V  
 - 2.5G V  
 - - 2.4G H  
 - - 2.45G H  
 - - 2.5G H



# External BT Antenna Average and MAX Gain

Unit[dBi]

	XY		
	2.40	2.45	2.50
Average	-9.1	-9.2	-9.7
MAX	-4.8	-4.3	-3.9

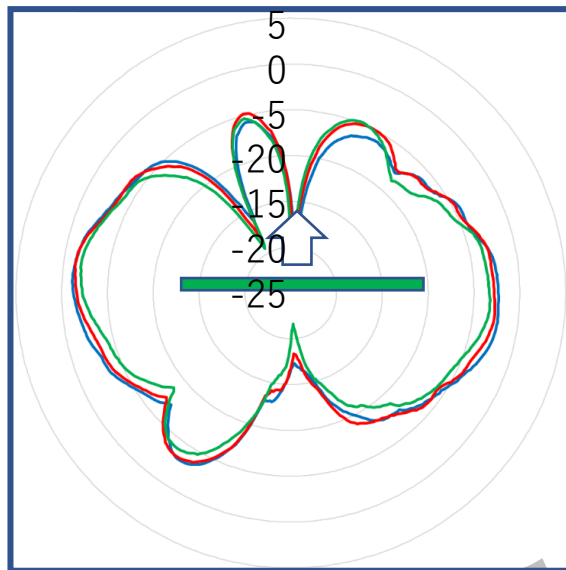
	YZ		
	2.40	2.45	2.50
Average	-5.9	-5.6	-5.0
MAX	-0.7	-0.4	0.6

	ZX		
	2.40	2.45	2.50
Average	-6.2	-6.5	-6.7
MAX	-1.2	-1.2	-1.4

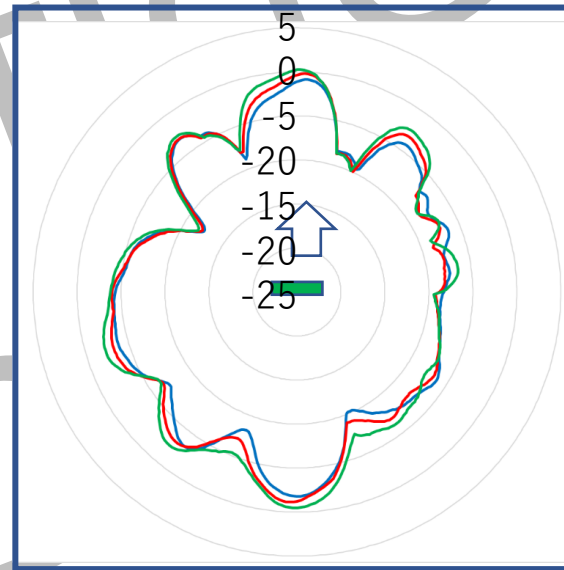
XY

YZ

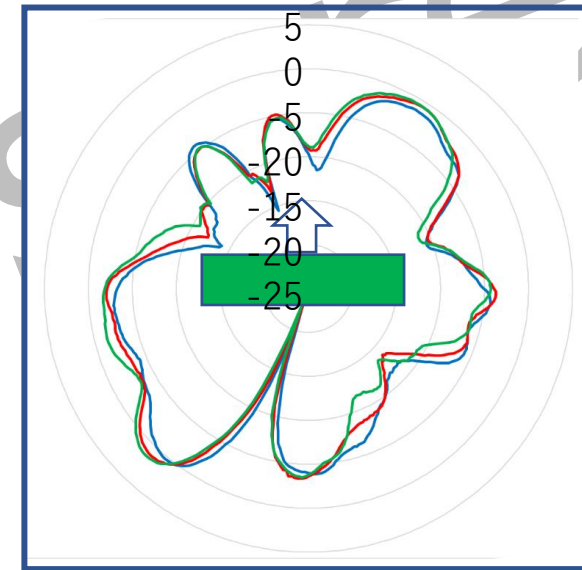
ZX



— 2.4G  
— 2.45G  
— 2.5G



— 2.4G  
— 2.45G  
— 2.5G



— 2.4G  
— 2.45G  
— 2.5G

# External BT Antenna Average and MAX Gain

Unit[dBi]

	XY		
	2.40	2.45	2.50
Average	-9.1	-9.2	-9.7
MAX	-4.8	-4.3	-3.9

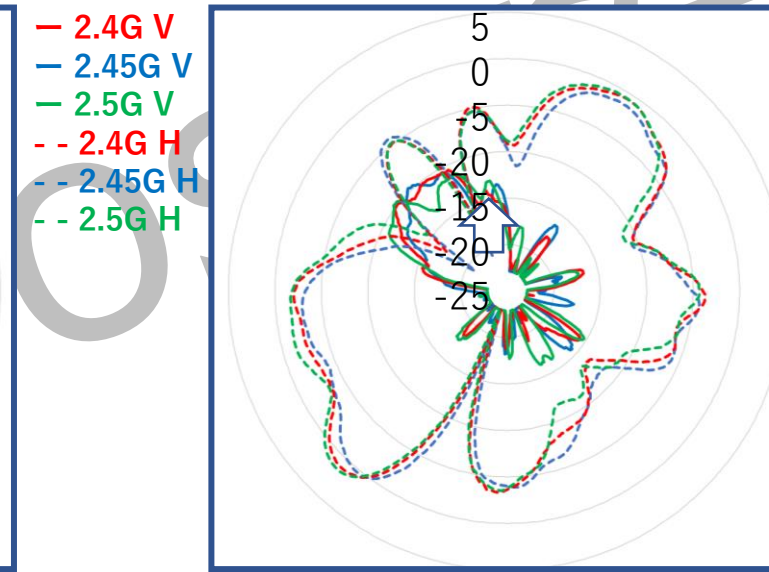
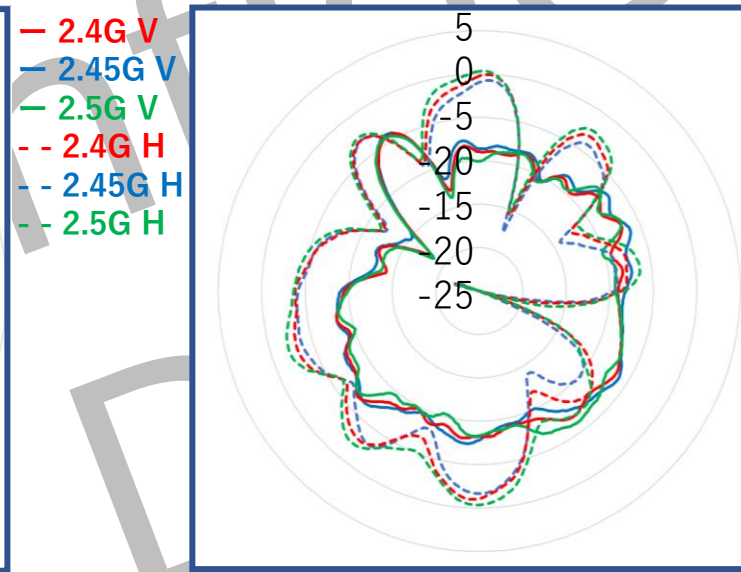
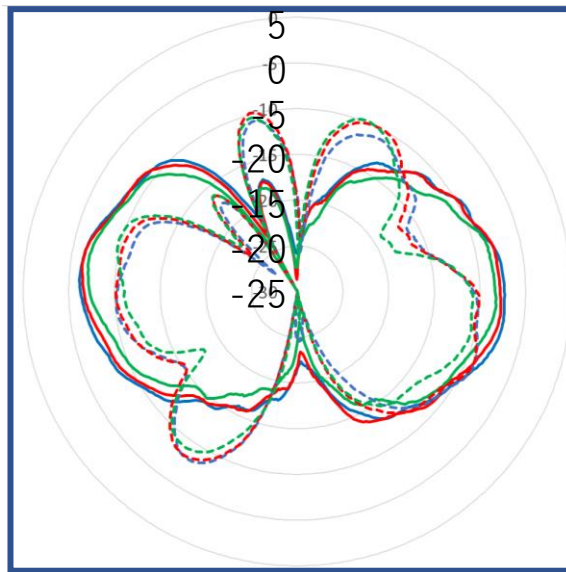
	YZ		
	2.40	2.45	2.50
Average	-5.9	-5.6	-5.0
MAX	-0.7	-0.4	0.6

	ZX		
	2.40	2.45	2.50
Average	-6.2	-6.5	-6.7
MAX	-1.2	-1.2	-1.4

XY

YZ

ZX



— 2.4G V  
— 2.45G V  
— 2.5G V  
- - 2.4G H  
- - 2.45G H  
- - 2.5G H

— 2.4G V  
— 2.45G V  
— 2.5G V  
- - 2.4G H  
- - 2.45G H  
- - 2.5G H

— 2.4G V  
— 2.45G V  
— 2.5G V  
- - 2.4G H  
- - 2.45G H  
- - 2.5G H