

6: Antenna specification;

6-2: Description of Available antennas for FCC



No	Antennas			Cables			
	Model name	Antenna type	Antenna gain[dBi]	Combination (refer to cable list)	Total loss[dB]	Total gain[dBi]	e.i.r.p. [dBm e.i.r.p.]
A	DA-2450-03RP-SMA-04	dipole antenna	4.3	1+2	1.01	3.29	12.04
B	EXT-ANT2	Patch antenna	1.95	1+2	1.01	0.94	9.69

* Change the emission power of radio module to 8.53dBm.

Brand name	HWaYaoTek
Model name	DA-2450-03RP-SMA-04
Manufacturer information	Hwa Yao Technologies Co., Ltd. No.1, Ln. 32, Zhengnan8 th St., Yongkang Dist., Tainan City 710, Taiwan (R.O.C.)
Antenna gain result (table)	Please see the slide 12(for FCC) and 13(for NCC).
gain pattern plots	Please see the slide 15 and the spec. sheet.

SPECIFICATIONS:

Electrical Specifications

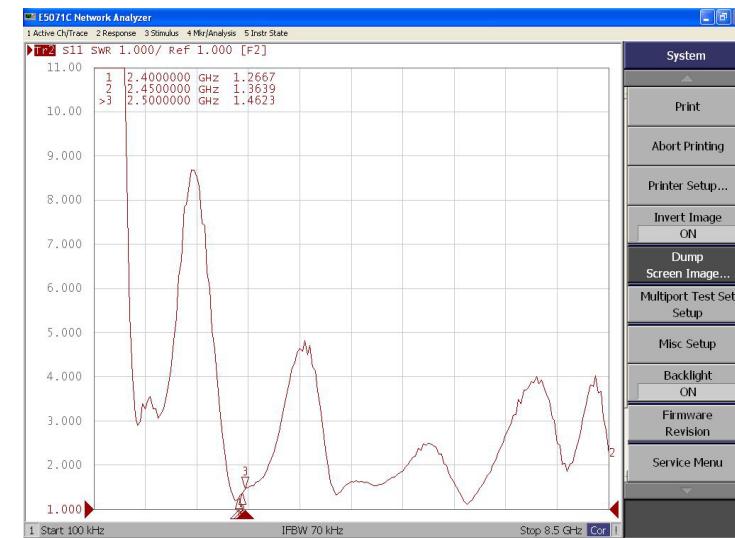
Frequency Range	2400~2500MHz
V.S.W.R	≤2.5:1
Antenna Type	Dipole Sleeve
Gain	≥3.0 +0.5dBi
Polarization	Linear
Horizontal Beam-width	360°
Impedance	50Ω
Connector	RP SMA MALE

Mechanical Specifications

Dimension	136mm
Weight	11.5g
Housing	TPEE
Hinge	ABS
Color	Black
Operating Temperature	-20°C to +70°C
Storage Temperature	-20°C to +70°C

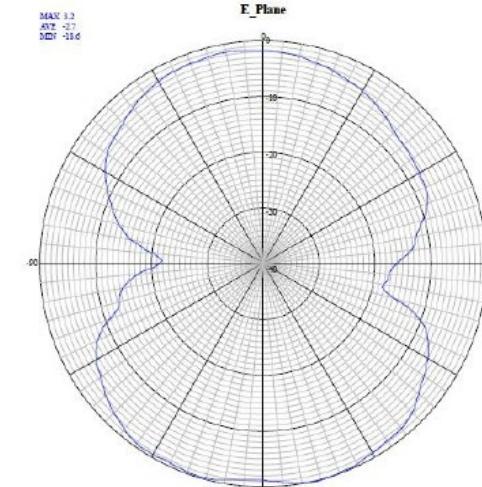
Frequency	Gain H-Plane	Gain E-Plane
2.4 GHz	4.1 dBi	3.8 dBi
2.45 GHz	3.4 dBi	4.0 dBi
2.5 GHz	3.3 dBi	4.3 dBi

VSWR

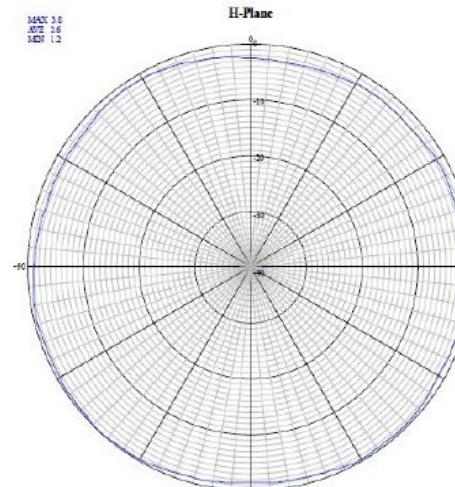


Antenna Vertical & Horizontal Pattern

Vertical



Horizontal



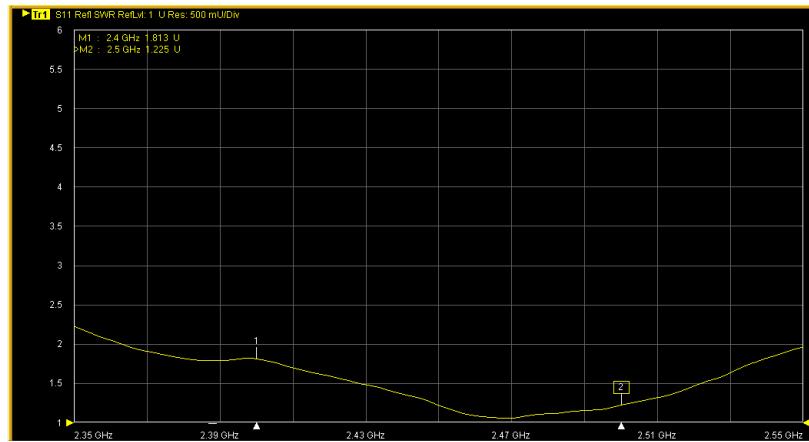
B: Antenna specification: EXT-ANT2

Brand name	FUTABA
Model name	EXT-ANT2
Manufacturer information	FUTABA CORPORATION 629, Oshiba, Mobara, Chiba Prefecture 297- 8588, Japan
Frequency range	2.4GHz～2.5GHz (VSWR<2.0)
Antenna type	Patch antenna
Connector type	SMA-P (Reversed type*)
Antenna gain	1.95dBi

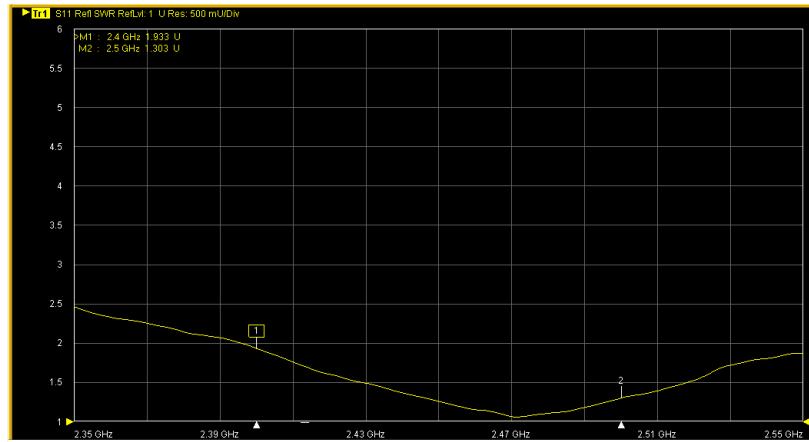
* D-C16-086-A-G is connected to SMA-P and molded by heat shrinkable tube for converting to SMA-RP.

- VSWR

- V偏波アンテナ

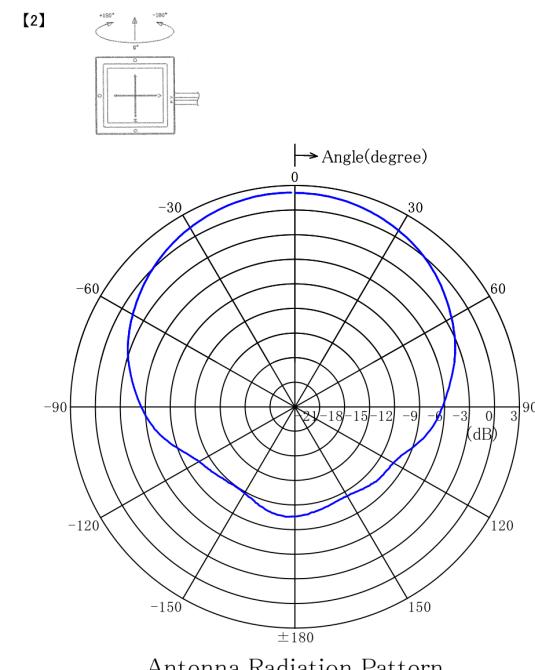
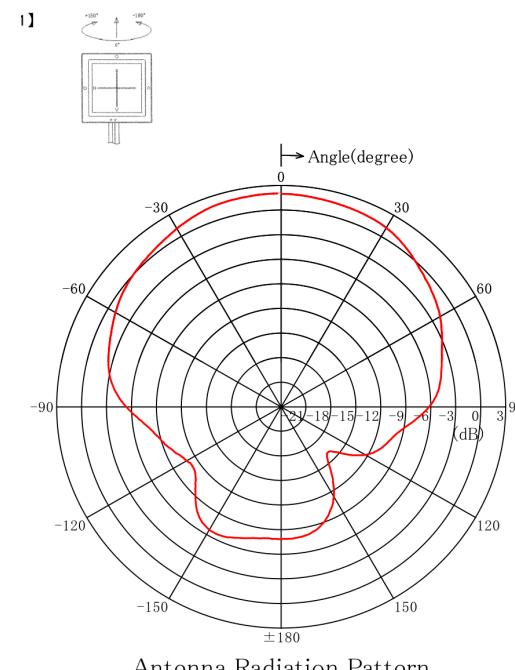


- H偏波アンテナ



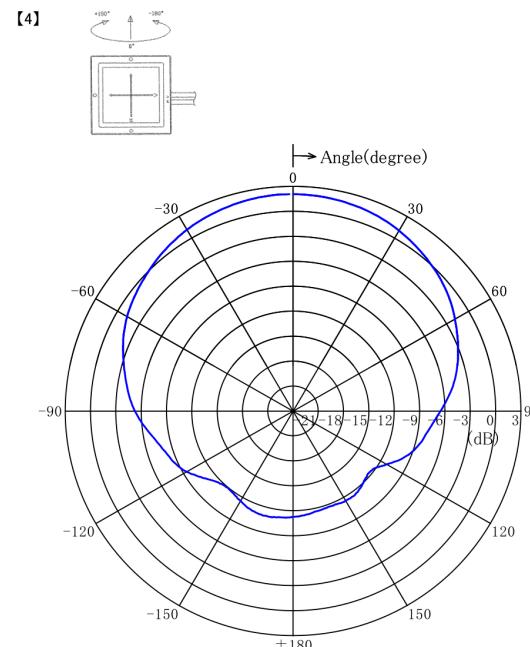
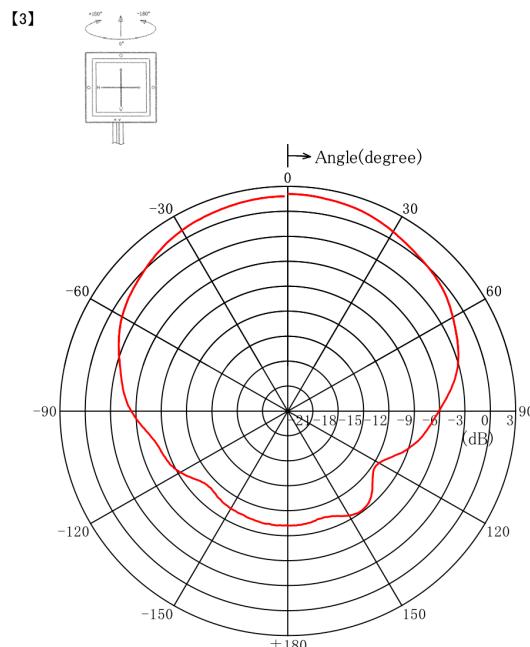
- Radiation patterns(Free space)

- 2400MHz



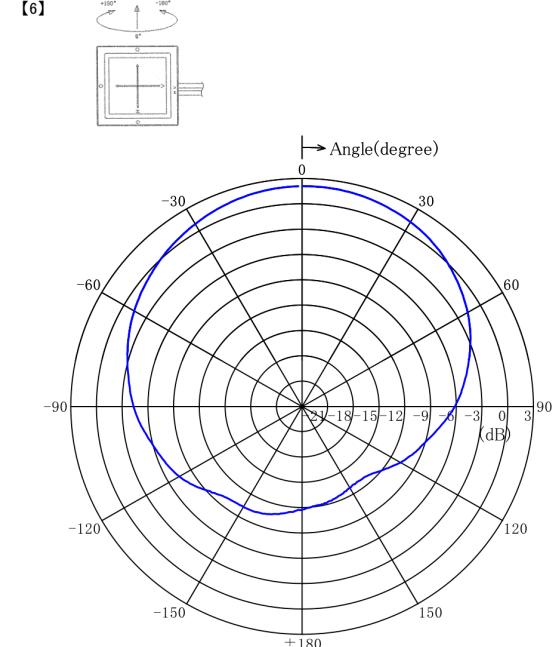
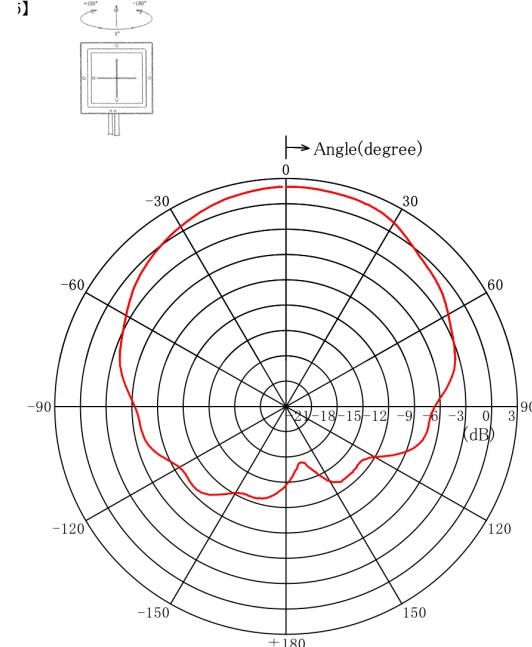
- Radiation patterns(Free space)

- 2450MHz



- Radiation patterns(Free space)

- 2500MHz



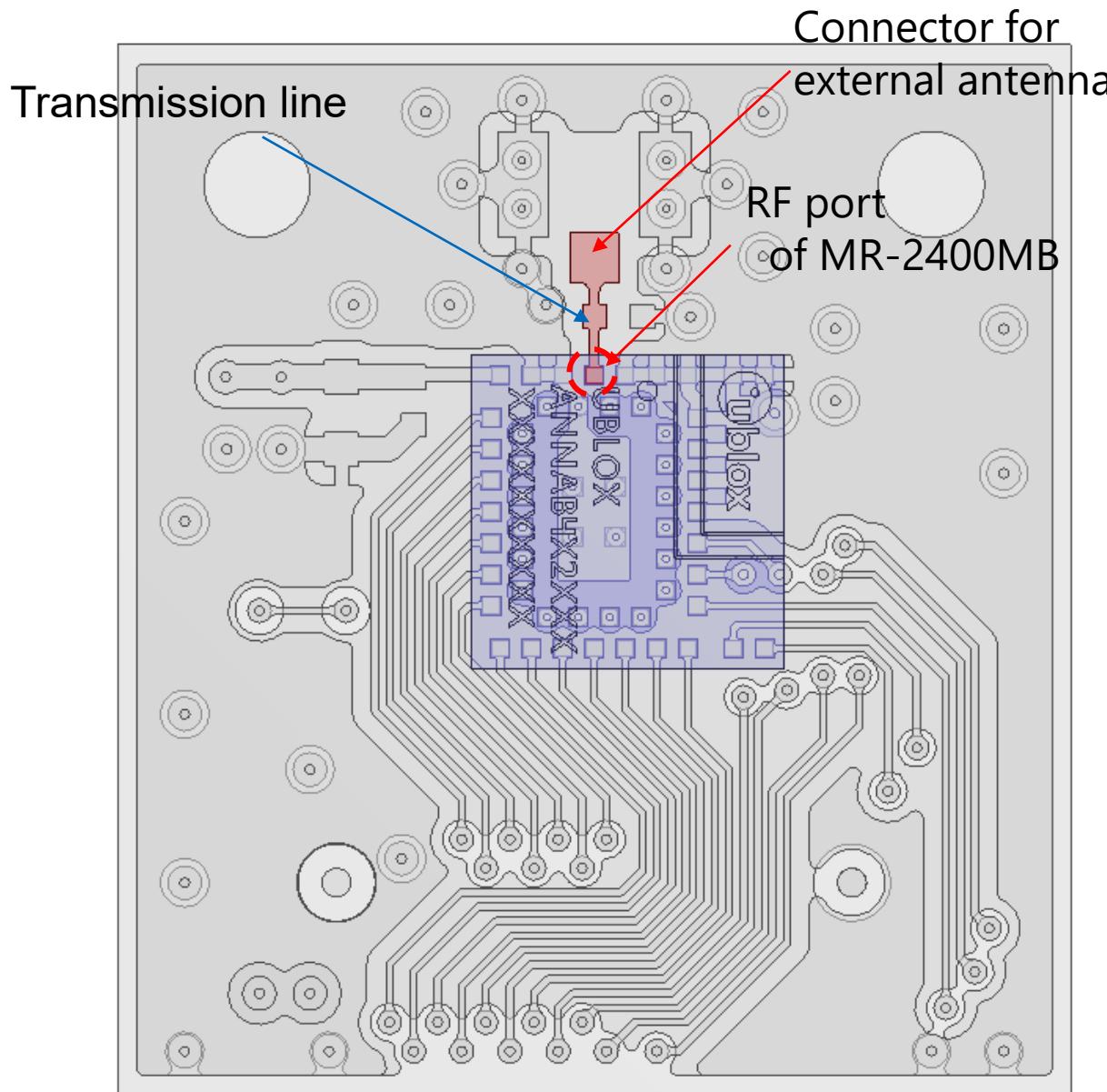
Frequency[MHz]	2400	2450	2500
Antenna gain[dBi]	1.95	1.91	1.91

7: Cable information

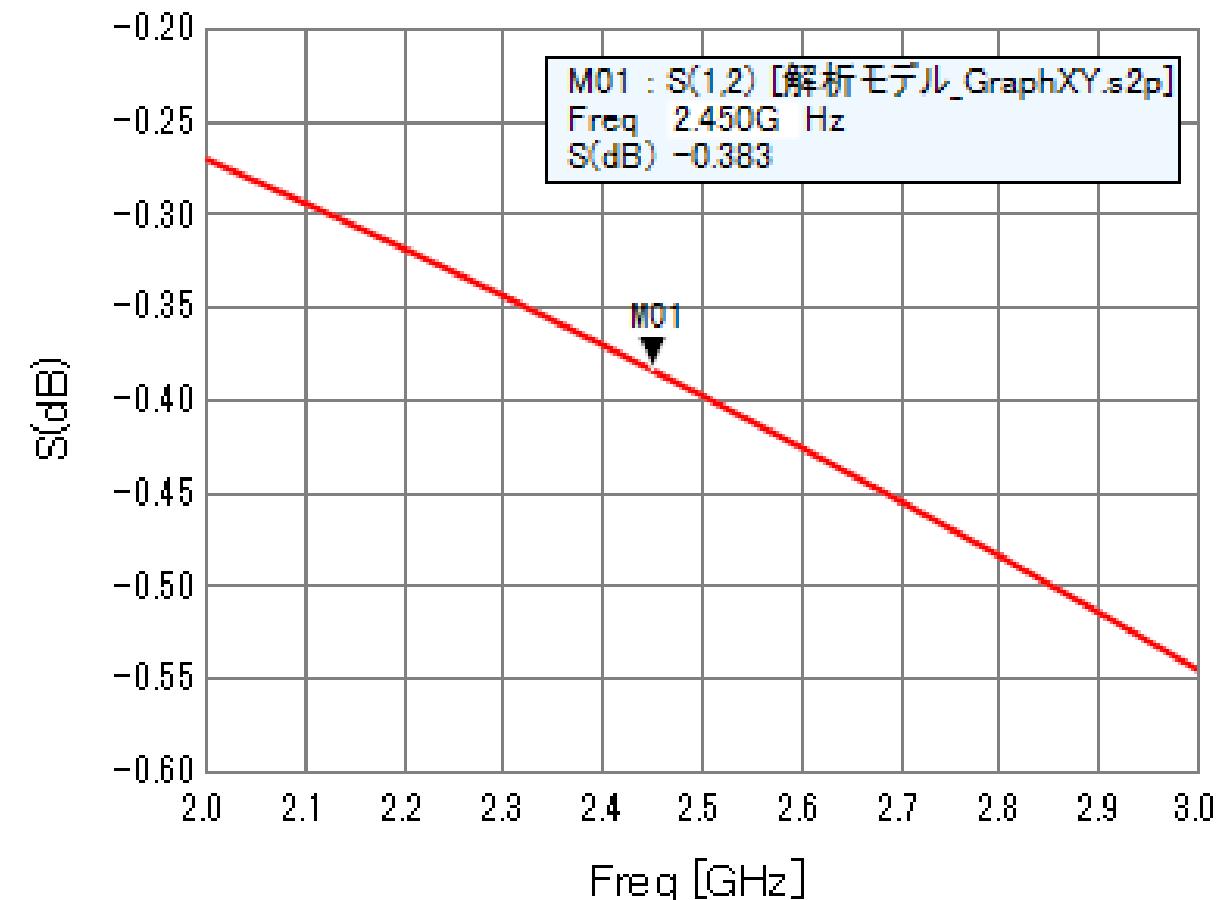
Description of Available Cables



	Product number	Length	Insertion loss
1	WL-456-5000	Refer to attached slide	0.38dB
2	AA-562-2020(SMA-MHF_harness(150mm))	150mm	0.63dB



- Insertion loss of the Strip line: 0.38dB(@2.45GHz)



- Insertion loss: 0.63dB

- Drawing

