MCS Logic CO.,LTD

APPROVAL SHEET

MODEL NAME		MB3021	
MCSLogic P/N			
NO	MODEL	FREQUENCY	
1	HWI-BTP-MB3021	BLUETOOTH	2402~ 2480MHz

SUPPLIER			CUSTOMER		
Engineer	Review	Approved	Engineer	Review	Approved
					
H. CHOI	W.C. LEE	C.G. NAM			

HANWOOL TECHNOLOGY CO., LTD
#1002 IT303-DONG, PUCHONTECHNOPARK Ⅲ 36-1

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TEL: 032) 624-2555
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HISTORY SHEET

Model	BLUETOOTH PCB PATTERN ANTENNA	Developed by	Hwan. Choi	
Part Name	HWI-BTP-MB3021	Director		

Rev. No.	Date	Description	Etc.
0.1	2022-06-23	Initial Version	
1.0	2022-08-09	Changed Antenna Peak Gain Value	

ANTENNA SPECIFICATION

1. MODEL: HWI-BTP-MB3021

2. APPLICATION:

This specification is provided for Bluetooth PCB Pattern ANTENNA.

3 ANTENNA used condition

■Portable ■Fixing ■Movement ■Out-door ■In-door ■Etc( )

4. ANTENNA Drawing

#3. Attached : Drawing paper

5. Electrical specification and performance

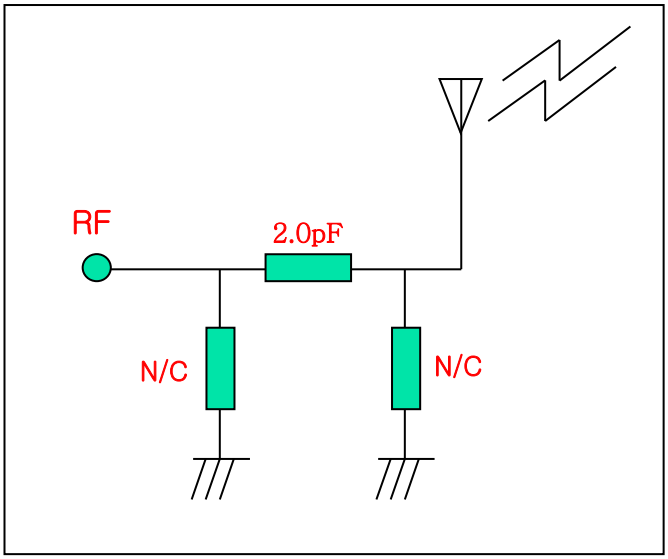
Satisfied next data with real used or similar environment conditions.

No.	ELECTRICAL DATA	SPECIFICATIONS	REMARK
5. 1	FREQUENCY RANGE	2400 ~ 2500 MHz	
5. 2	IMPEDANCE	50 Ω	NOMINAL
5. 3	V. S. W. R	Less than 1:2.0	#1. Attached
5. 4	PEAK GAIN (MAX)	2.90 dBi	#2. Attached
5. 5	RADIATION PATTERN	OMNI - DIRECTIONAL	
5. 6	POLARIZATION	LINEAR	

6. Hardware specification and mechanical

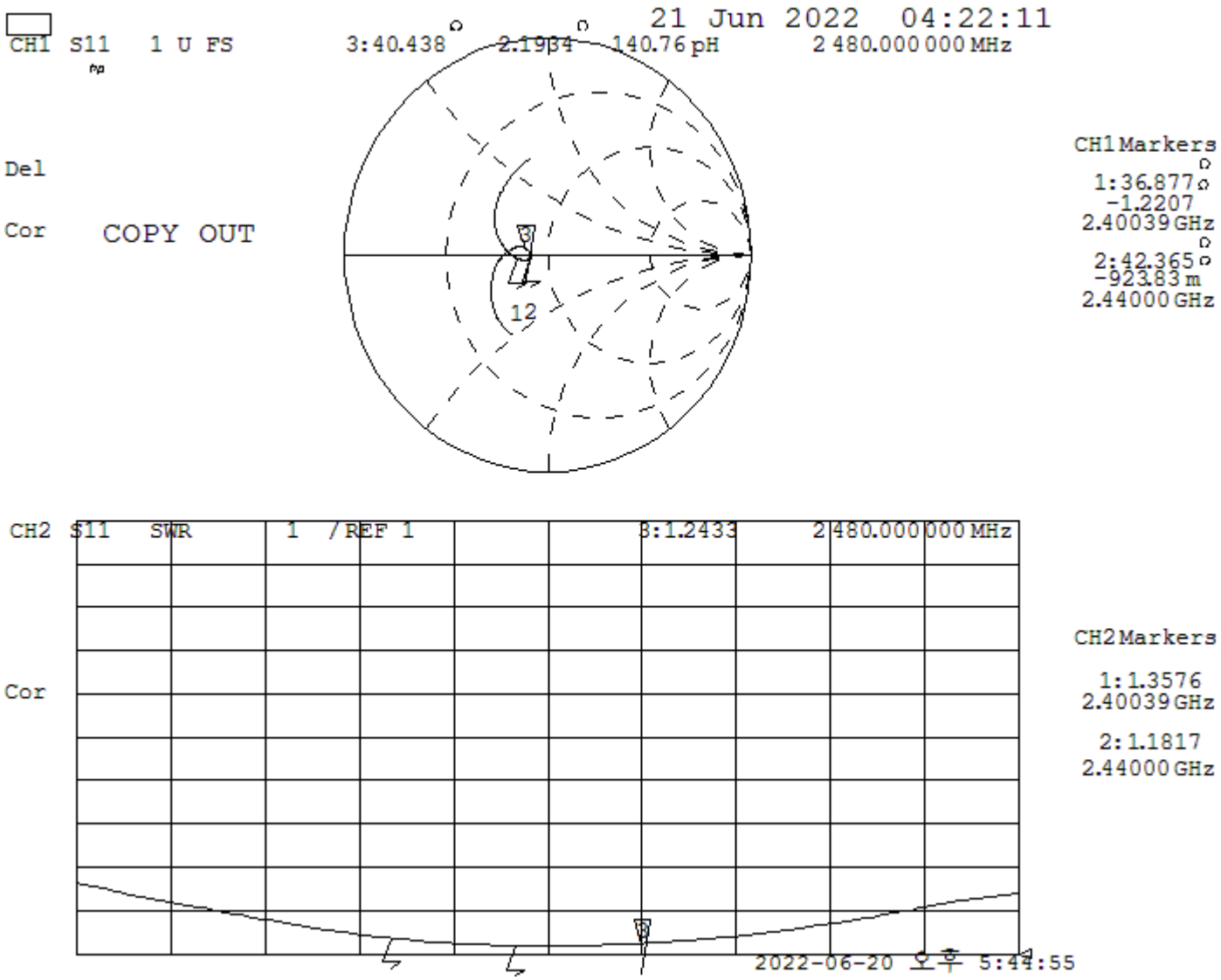
No.	MECHANICAL	SPECIFICATIONS	REMARK
6. 1	Antenna Type	PIFA Type	
6. 2	Matching Value	NC	GND Feeding
6. 3	Matching Value	2.0pF(Series)	
6. 4	Dimension [D X H X W]	17.8 X 4.8 X 1.0T	

7. IMPEDANCE MATCHING



DQ No.	HW-220809-1	Modify No.		Write	Hwan. Choi
Supply to	MCSLogic CO., LTD	Date	2022-08-09	Approval	Chang-gi. Nam

- #1. Attached : VSWR

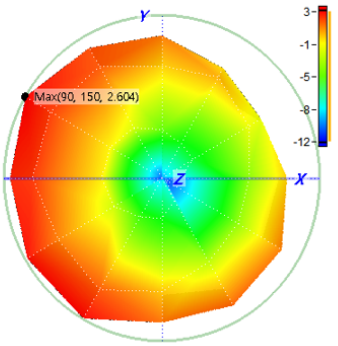
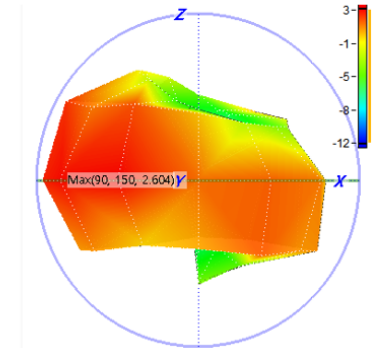
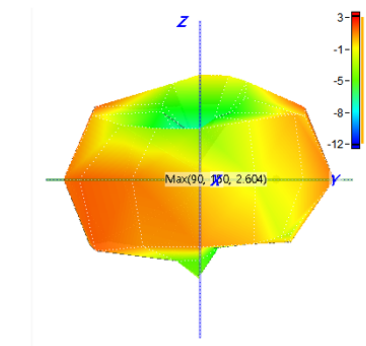


- #2. Attached : RADIATION PATTERN(GAIN)

3D Radiation Pattern Measurement Results

1. Informations

Date		Test Engineer	
Customer		Antenna Version	
Model / Revision			
Test Condition			

XY	XZ	YZ
		

2. Test Results

No	Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
	[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
1	2402.000	2.604211	90 / 150	-11.995363	150 / 240	-0.522344	88.667741
2	2441.000	2.899449	90 / 150	-15.782276	150 / 240	-0.349567	92.266334
3	2480.000	2.807262	90 / 150	-20.626892	150 / 240	-0.643225	86.233786
4							
5							

- #3. Attached : Drawing paper