

EARBUDS_ANT(LEFT)
[HWI-BTL-UW100MK2]

Dreamus Corp.

APPROVAL SHEET

UW100MK2			
NO	MODEL	FREQUENCY	
1	HWI-BTL-UW100MK2	BLUETOOTH	2400 ~ 2483.5 MHz

SUPPLIER			CUSTOMER		
Engineer	Review	Approved	Engineer	Review	Approved
					
23/03/02		23/03/02			



HANWOOL TECHNOLOGY CO., LTD
#1002 IT303-DONG, PUCHONTECHNOPARK III 36-1
SAMJUNG-DONG, OHJUNG-GU, KYOUNG GI-DO, KOREA
TEL: 032) 624-2555
FAX: 032) 624-2559

HISTORY SHEET

[illegible]

ANTENNA SPECIFICATION

1. MODEL: HWI-BTL-UW100MK2

2. APPLICATION:

This specification is provided for BLUETOOTH 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	BLUETOOTH	2400 ~ 2483.5 MHz	
5. 2	IMPEDANCE	50 Ω NOMINAL		
5. 3	V. S. W. R	BLUETOOTH	Less than 1 : 2.78	#1. Attached
5. 4	PEAK GAIN	BLUETOOTH	-3.46 dBi	#2. Attached
5. 5	RADIATION PATTERN	OMNI – DIRECTIONAL		
5. 6	POLARIZATION	LINEAR		

6. Hardware specification and mechanical

No.	MECHANICAL	SPECIFICATIONS	REMARK
2. 6. 1	FPCB Size [W X H X T]	13.40 X 13.80 X 0.15 (mm)	

7. SINUSOIDAL VIBRATION

Vibration Frequencies : 5- 55 Hz (1 cycle)

Sweep Rate : 1 cycle/min

Maximum Amplitude : A - 1 mm

Maximum Acceleration: 2 g

Measuring method

Antenna is combined in the test equipment.

The vibration is done X and Y direction (left, right, up and down) according to below image.

It continued for 2 hours each direction.

8. OPERATING TEMPERATURE

Temperature : - 40℃ / +70℃

Demands : Set Antenna and Cable for 72 hours each temperature.

No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

The antenna shall satisfy the electrical data

9. HUMIDITY

Condition : 95% / +70℃

Measuring method

Antenna is placed in climatic chamber for 72 hours.

Antenna is taken out from the chamber and measured

after another 24 hours in room temperature

Demands : No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

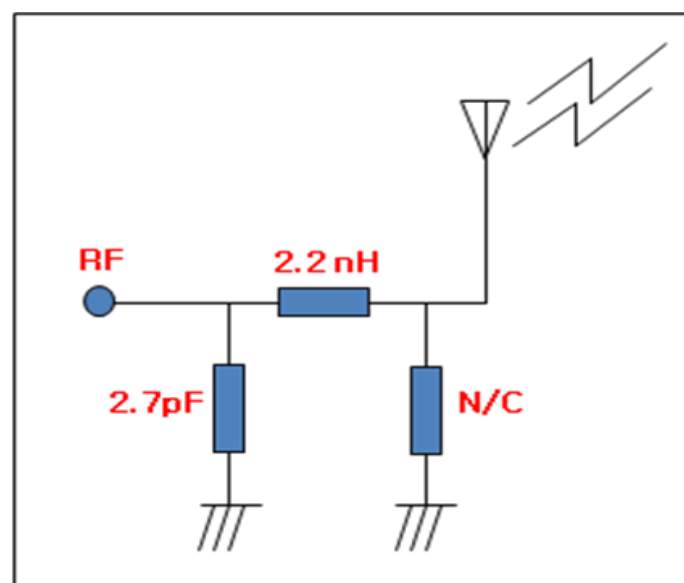
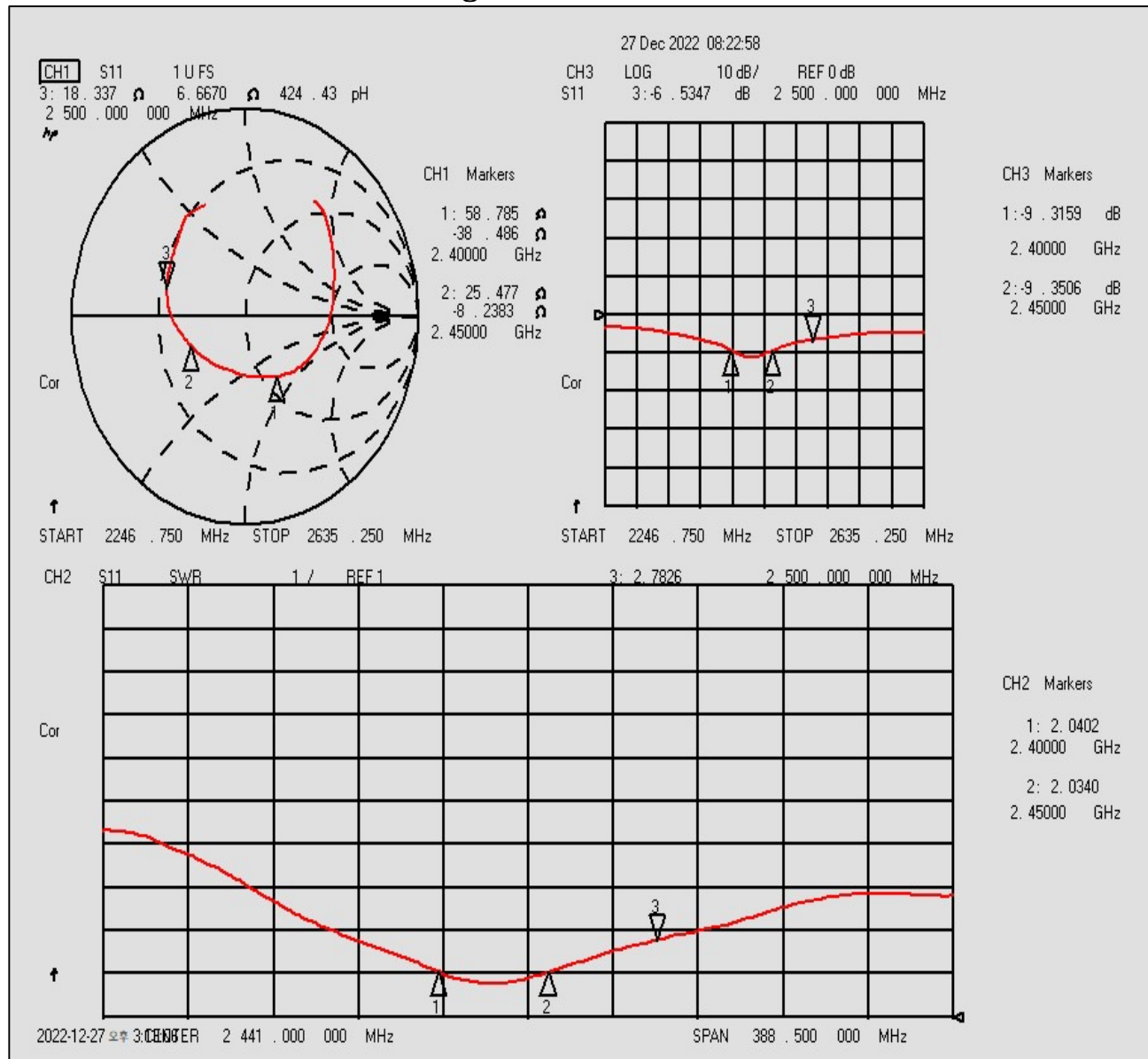
The antenna shall satisfy the electrical data.

10. TEST and Q/C

This specification is according to fixed demands and suitable Hanwool technology Q/C provision.

But it is possible to skip No. 7~9 demands, after consultation with buyer.

- #1. Attached : VSWR + Matching Value



- #2. Attached : RADIATION PATTERN(GAIN)_BLUETOOTH

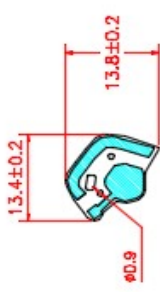


- #3. Drawing paper

No		Revision Note		Checked	Date
A					

Pattern :

TOP



BOTTOM

COVERLAY : YELLOW

TOP



BOTTOM



Silk print : White Color

TOP

HanwoolTech (드림머스)
HWI-BTL-UW100MK2 (V.0)



1. 표시는 패턴 Area임.
2. 표시는 금도금 Area임.
3. 표시는 COVERLAY 영역임.
4. 표시는 3M 467 영역임.
5. 1/2 OZ, 1/2 MIL 적용.

1		Material Description		Q'ty	Finish
No	Part Name	FPCB		HWI-BTL-UW100MK2	
Scale	Unit	Title	Drawn by	Model	
1/1	mm		Checked by	File Name	드림머스
Decimal	Angle	J.G.LIM	Approved by		
X ±0.1			H.CHOI		
XX ±0.05	N/A	230302-56			

Hanwool Technology

EARBUDS_ANT(RIGHT)
[HWI-BTR-UW100MK2]

Dreamus Corp.

APPROVAL SHEET

UW100MK2			
NO	MODEL	FREQUENCY	
1	HWI-BTR-UW100MK2	BLUETOOTH	2400 ~ 2483.5 MHz

SUPPLIER			CUSTOMER		
Engineer	Review	Approved	Engineer	Review	Approved
					
23/03/02		23/03/02			



HANWOOL TECHNOLOGY CO., LTD
#1002 IT303-DONG, PUCHONTECHNOPARK III 36-1
SAMJUNG-DONG, OHJUNG-GU, KYOUNG GI-DO, KOREA
TEL: 032) 624-2555
FAX: 032) 624-2559

HISTORY SHEET

ITEM	FPCB ANTENNA	Developed by	Kyoung-Min Lee	
Part Name	HWI-BTR-UW100MK2	Director		
Rev. No.	Date	Description		Etc.
0	2023-03-02	Initial Version		

ANTENNA SPECIFICATION

1. MODEL: HWI-BTR-UW100MK2

2. APPLICATION:

This specification is provided for BLUETOOTH 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	BLUETOOTH	2400 ~ 2483.5 MHz	
5. 2	IMPEDANCE	50 Ω NOMINAL		
5. 3	V. S. W. R	BLUETOOTH	Less than 1 : 2.78	#1. Attached
5. 4	PEAK GAIN	BLUETOOTH	-3.46 dBi	#2. Attached
5. 5	RADIATION PATTERN	OMNI – DIRECTIONAL		
5. 6	POLARIZATION	LINEAR		

6. Hardware specification and mechanical

No.	MECHANICAL	SPECIFICATIONS	REMARK
2. 6. 1	FPCB Size [W X H X T]	13.40 X 13.80 X 0.15 (mm)	

7. SINUSOIDAL VIBRATION

Vibration Frequencies : 5- 55 Hz (1 cycle)

Sweep Rate : 1 cycle/min

Maximum Amplitude : A - 1 mm

Maximum Acceleration: 2 g

Measuring method

Antenna is combined in the test equipment.

The vibration is done X and Y direction (left, right, up and down) according to below image.

It continued for 2 hours each direction.

8. OPERATING TEMPERATURE

Temperature : - 40℃ / +70℃

Demands : Set Antenna and Cable for 72 hours each temperature.

No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

The antenna shall satisfy the electrical data

9. HUMIDITY

Condition : 95% / +70℃

Measuring method

Antenna is placed in climatic chamber for 72 hours.

Antenna is taken out from the chamber and measured

after another 24 hours in room temperature

Demands : No visual and mechanical changes.

The fitting and mold will be unchanged mechanically during the test.

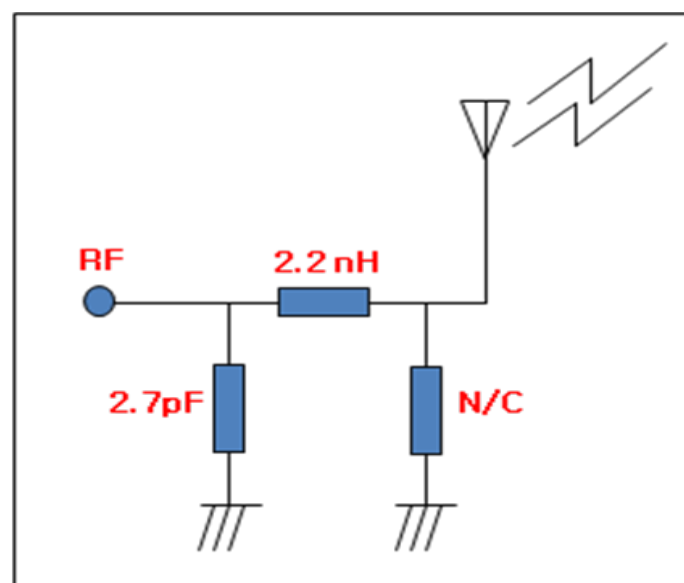
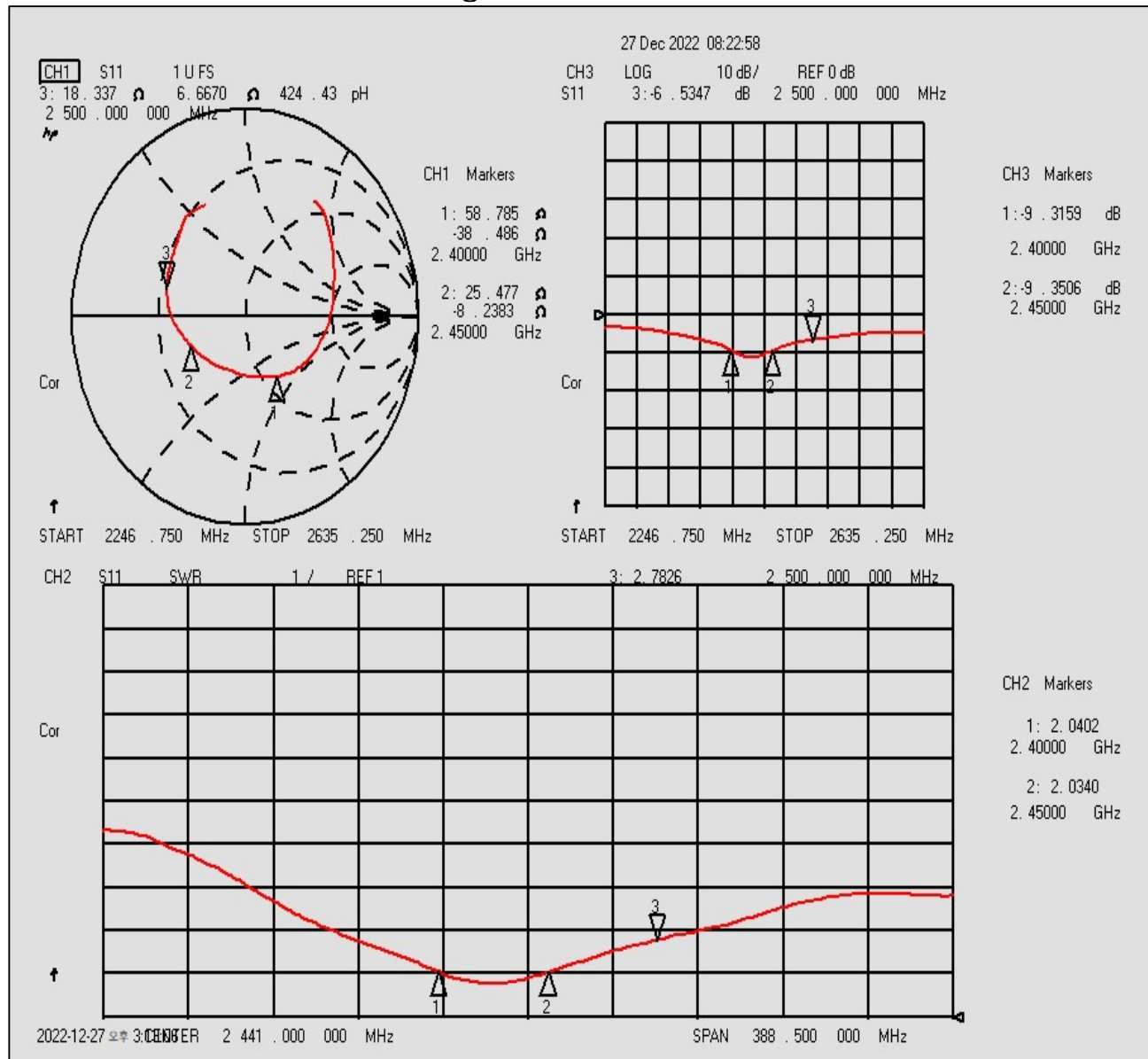
The antenna shall satisfy the electrical data.

10. TEST and Q/C

This specification is according to fixed demands and suitable Hanwool technology Q/C provision.

But it is possible to skip No. 7~9 demands, after consultation with buyer.

- #1. Attached : VSWR + Matching Value



- #2. Attached : RADIATION PATTERN(GAIN)_BLUETOOTH

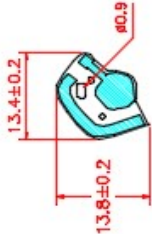


- #3. Drawing paper

No	Revision Note	Checked	Date
1			

Pattern :

TOF



TOP

COVERLAY : YELLOW

TOF



BOTTOM

Silk print : White Color

TOF



HanwoolTech (드림머스)
HWI-BTR-UW100MK2 (V.0)

1.  표시는 패턴 Area임.
2.  표시는 금도금 Area임.
3.  표시는 COVERLAY 영역임.
4.  표시는 3M 467 영역임.
5. 1/2 OZ, 1/2 MIL 적용.

1		Part Name		Material Description		Q'ty		Finish	
No	Scale	Unit	Title	Drawn by	Checked by	FPCB	Model	File Name	
1	1/1	mm		J.O.LIM					HWI-BTR-UW100MK2
	Decimal	Angle							드림머스
	.X ±0.1								
	.XX ±0.05	N/A	230302-57						

Hanwool Technology