



MARK LINK Co., Ltd.

APPROVAL SHEET


IML-C6400W			
NO	MODEL	FREQUENCY	
1	HWI-LTSI-DC6400W	LTE Band 31	452.5 ~ 467.5 MHz
		LTE Band 26	814 ~ 894 MHz
		LoRA	920 ~ 925 MHz

SUPPLIER			CUSTOMER		
Engineer	Review	Approved	Engineer	Review	Approved
					
22/09/28		22/09/28			



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	LPS ANTENNA	Developed by	Kyoung-Min Lee	
Part Name	HWI-LTSI-DC6400W	Director		
Rev. No.	Date	Description		Etc.
0	2022-09-28	Initial Version		

ANTENNA SPECIFICATION

1. MODEL: HWI-LTSI-DC6400W

2. APPLICATION:

This specification is provided for LTE Band31, 26, LoRA 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	LTE Band31	452.5 ~ 467.5 MHz	
		LTE Band26	814 ~ 894 MHz	
		Lora	920 ~ 925 MHz	
5. 2	IMPEDANCE	50 Ω NOMINAL		
5. 3	V. S. W. R	LTE Band31	Less than 1 : 7.04	#1. Attached
		LTE Band26	Less than 1 : 5.25	
		Lora	Less than 1 : 1.91	
5. 4	PEAK GAIN	LTE Band31	-7.31 dBi	#2. Attached
		LTE Band26	-3.38 dBi	
		Lora	-0.08 dBi	
5. 5	RADIATION PATTERN	OMNI – DIRECTIONAL		
5. 6	POLARIZATION	LINEAR		

6. Hardware specification and mechanical

No.	MECHANICAL	SPECIFICATIONS	REMARK
2. 6. 1	CARRIER [W X H X T]	53.3 X 9.5 X 11.7 (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.

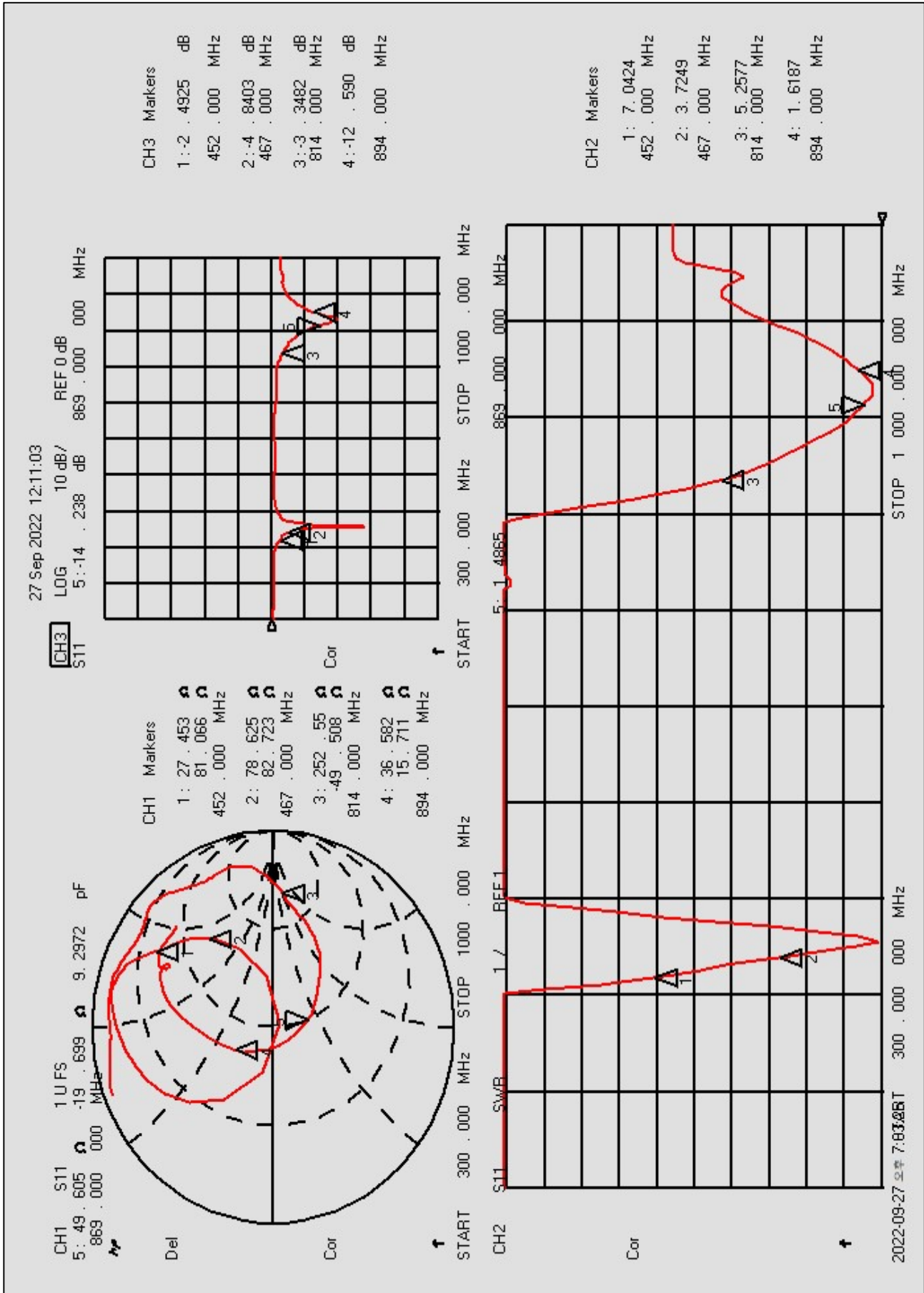
The antenna shall satisfy the electrical data.

10. TEST and Q/C

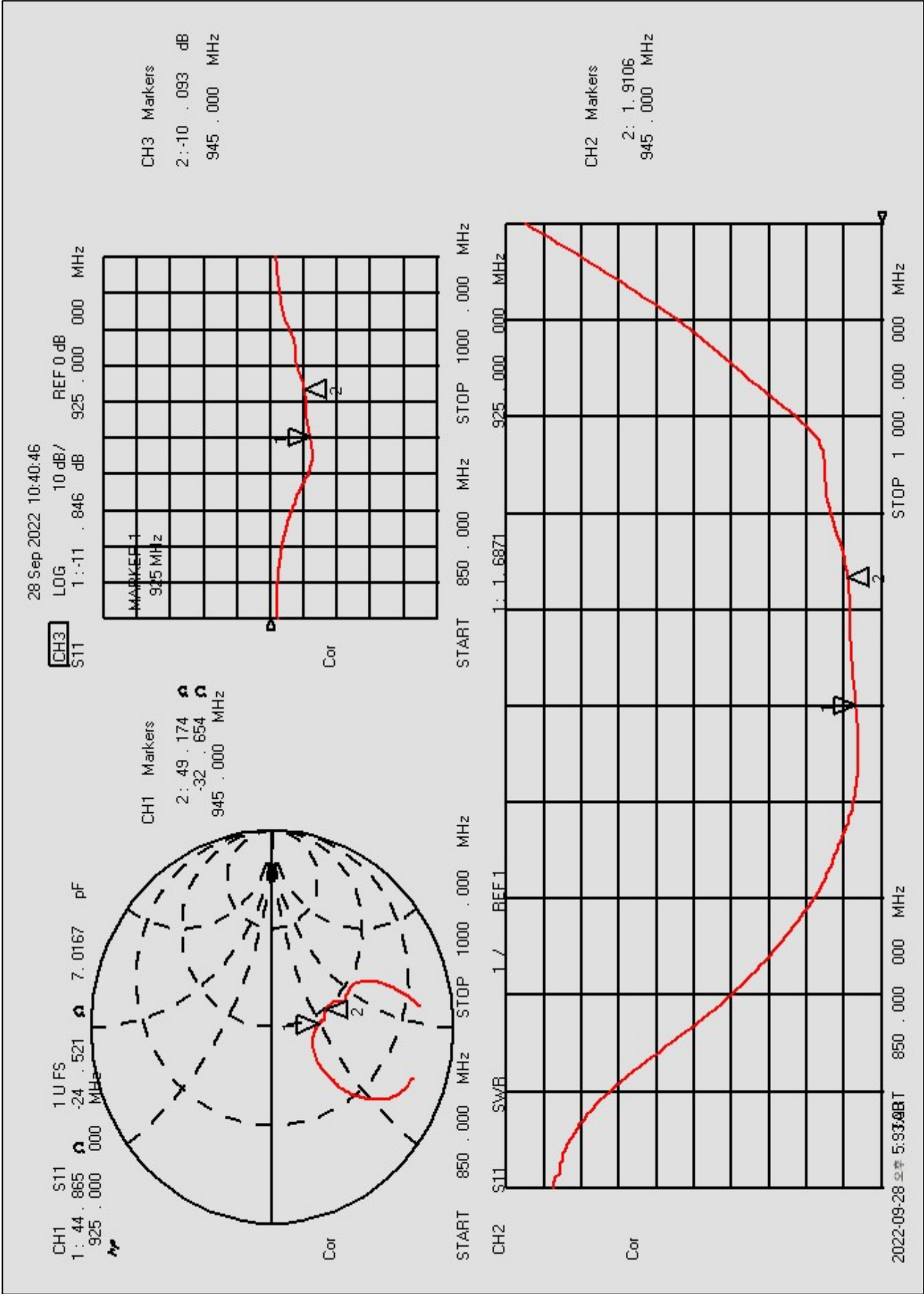
This specification is according to fixed demands and suitable Hanwool technology Q/C provision.

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

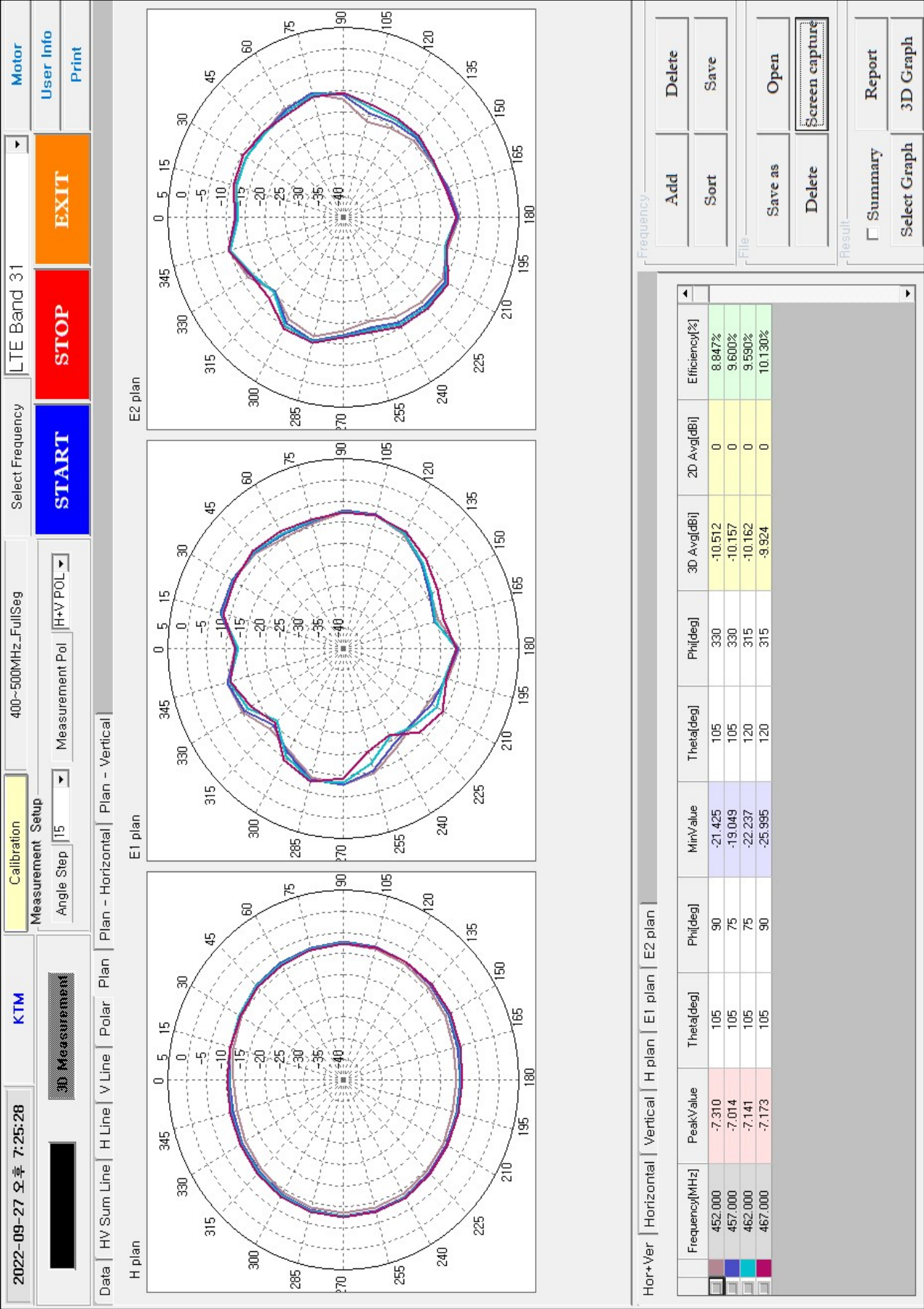
- #1. Attached : DIVERSITY VSWR



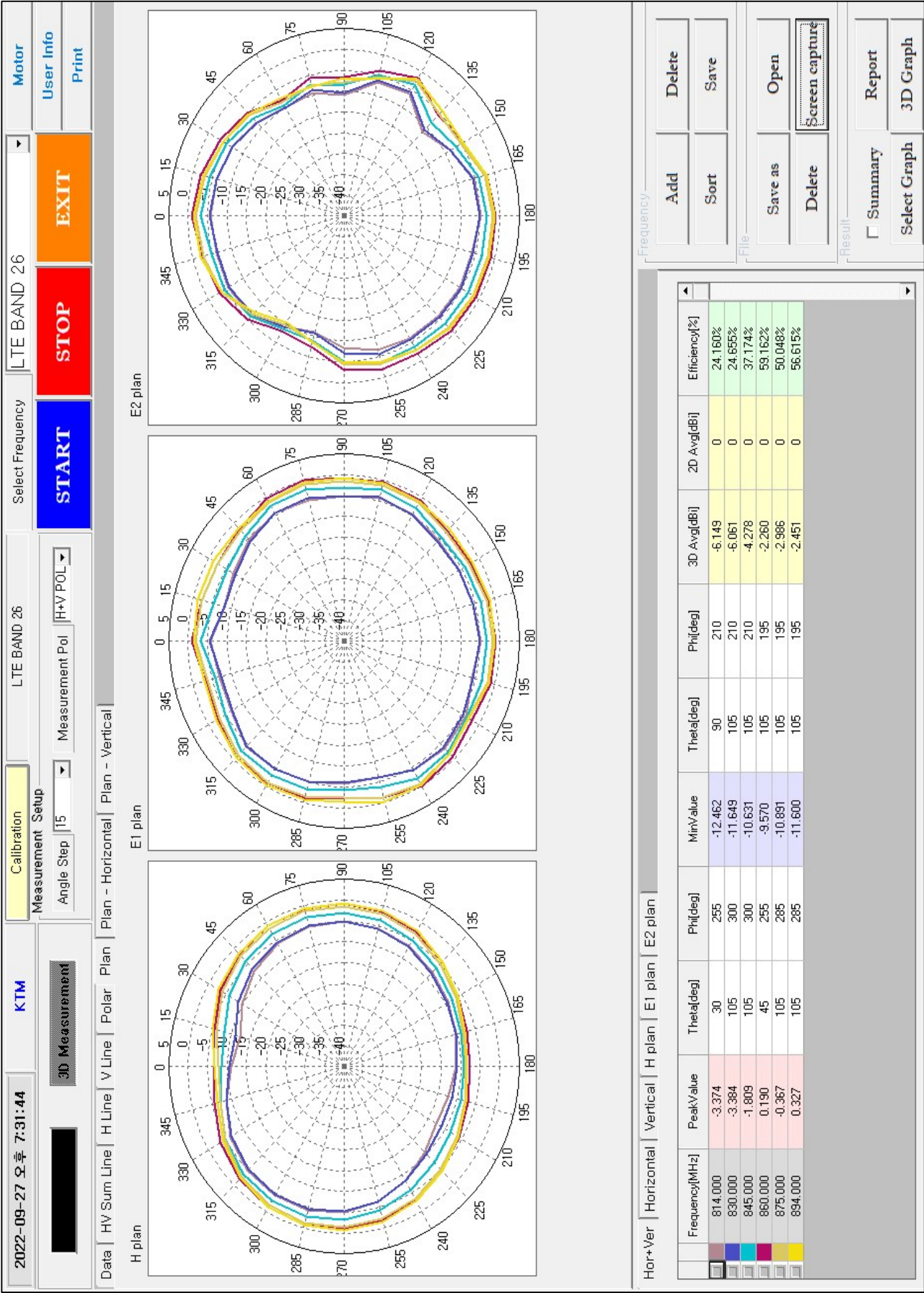
LoRA VSWR



- #2. Attached : RADIATION PATTERN(GAIN)_LTE Band31



RADIATION PATTERN(GAIN)_ LTE Band26



Hor+Ver

Horizontal

Vertical

H plan

E1 plan

E2 plan

Frequency

Add

Delete

Sort

Save

File

Save as

Open

Delete

Screen capture

Result

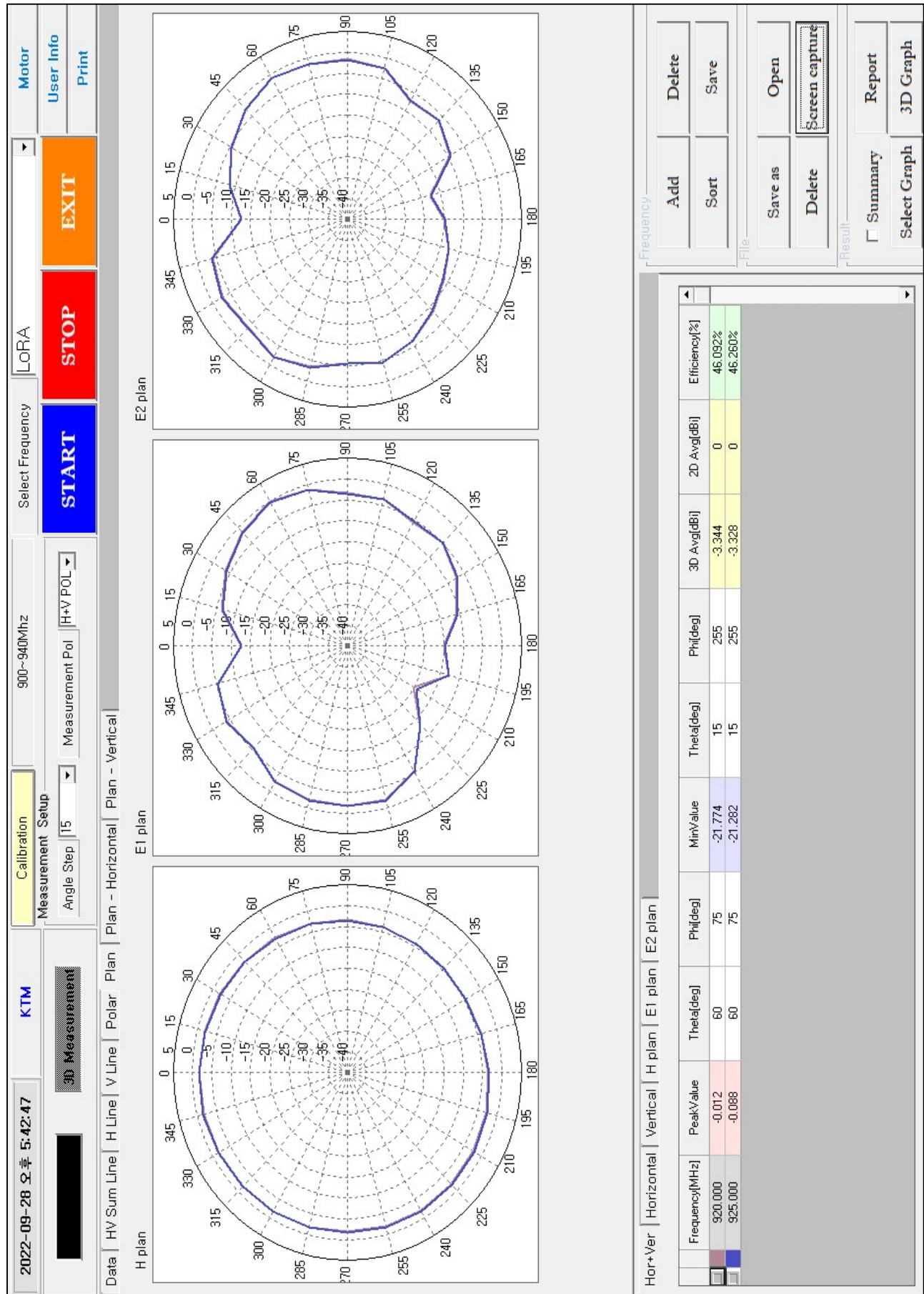
Summary

Report

Select Graph

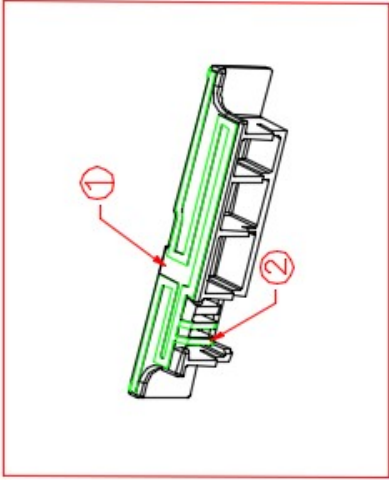



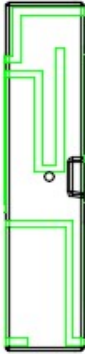
3D Graph

RADIATION PATTERN(GAIN)_ LoRA



- #3. Drawing paper

No		Revision Note		Checked	Date
A					



3D VIEW

PATTERN		LPS		1
CARRIER		PC-LG재질 SC1004		1
Part Name		Material Description		Q'ty
Scale	Unit	ASSY	Model	Finish
1/1	mm	Checked by	Approved by	File Name
Decimal	Angle	J.O,LIM	K.M,LEE	H,CHOI
.X ±0.1	N/A	220825-51		HWI-LTSI-DC6400W
.XX ±0.05				마크잉크

Hanwool Technology