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Model	Type	Rev.	KEITECH	IR
GEN3(90mm)	PCB Antenna		LGIT	A

Pre-APPROVAL SHEET

Customer : LGIT

Company : KEITECH





Product Name : PCB Antenna

Model : GEN3(90mm)

Customer P/N : -

Maker Code : -



Department	Investigation	Verification	Approval
Circuit		/	
Machine			
Safety			



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2. Circuit Specification

2.1 Test Setting

2.1.1 Test Environment (Condition/Method)

① VSWR

Step 1. Connect ANT port with cable included adaptor to port1 of Network analyzer.

Step 2. Point out markers on network analyzer display at target frequencies.

Step 3. Inspect VSWR

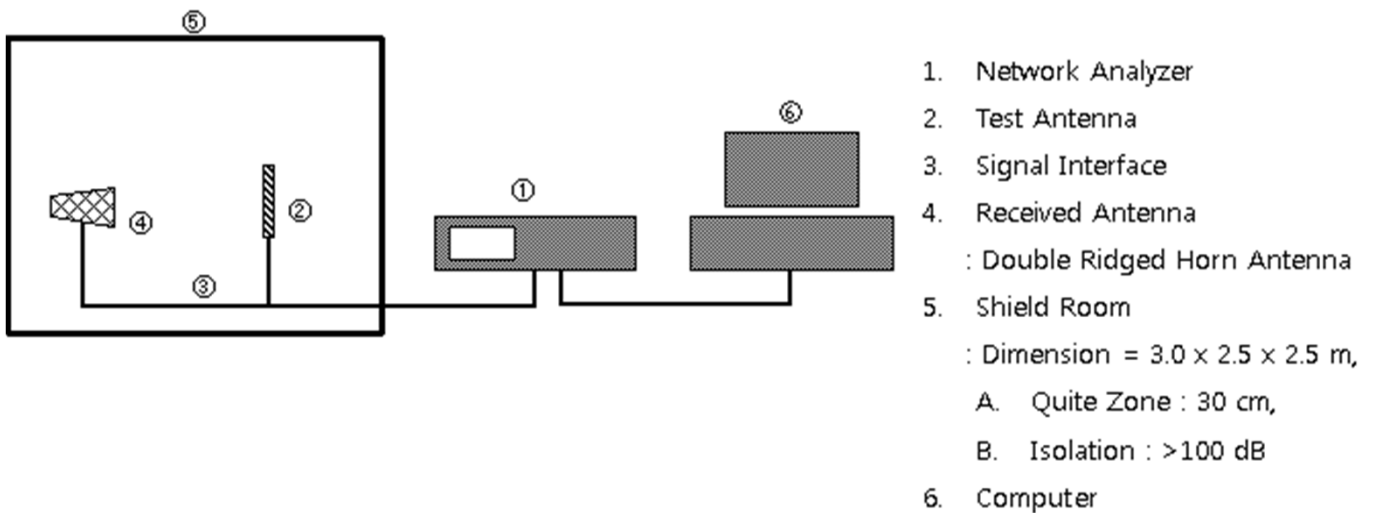
② Radiation Pattern and Gain

Step 1. Calibrate chamber system for gain measurement using horn antenna.

At the same time set up software program for chamber system control.

Step 2. Change over from a horn antenna to measuring antenna on target positioner

Step 3. Start a software program for chamber system control & measuring.





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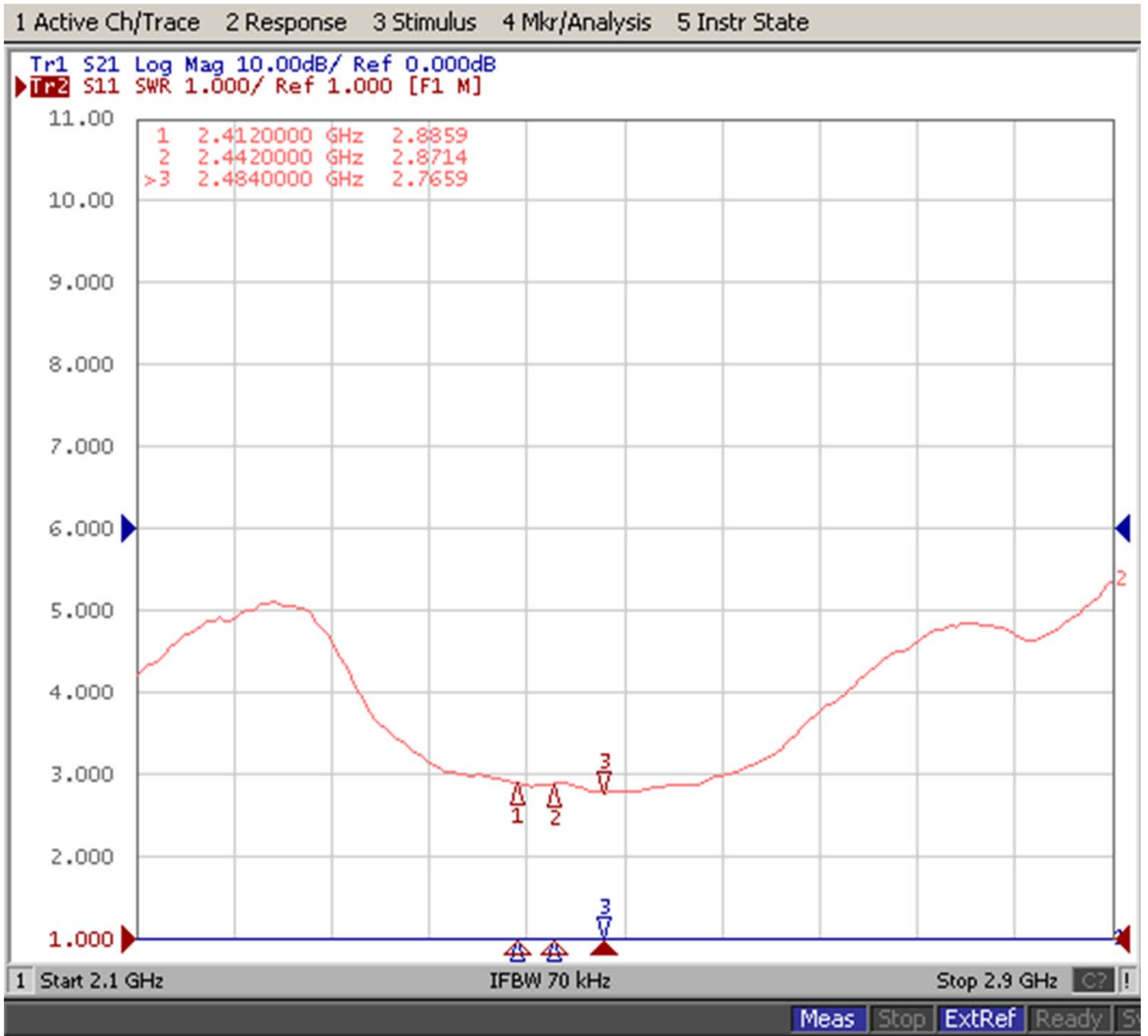
2.2 Electrical Specification

GEN3(90mm)		
Frequency	2412MHz	2484MHz
VSWR	≤ 3.8	≤ 3.8
Peak Gain (dBi)	1.5	1.4
Directivity	Omni-directional	
Polarization	Linear	

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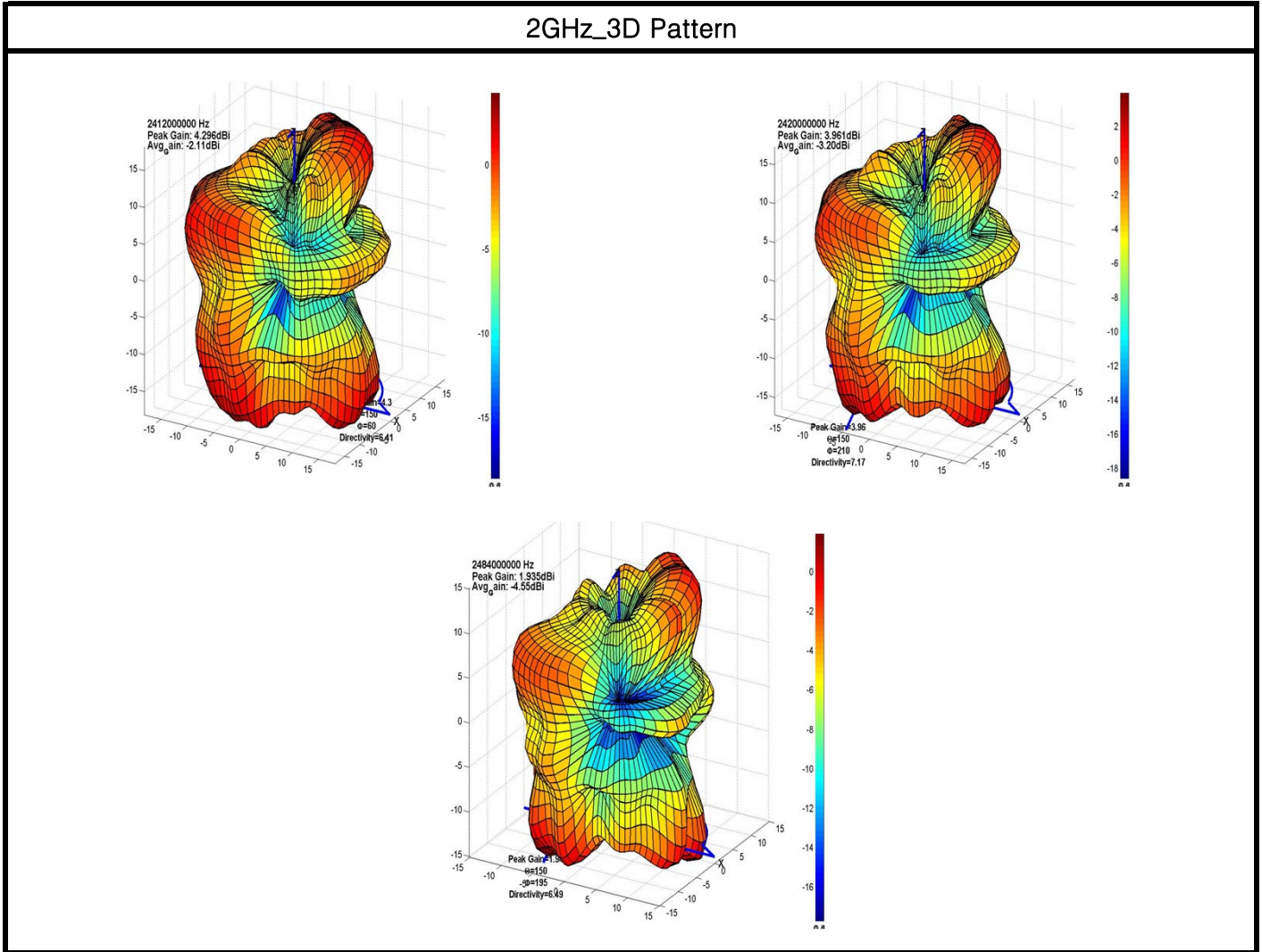
2.2.1 Electrical Spec. of Piece (With VSWR)



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2.2.2 Passive Gain & 3D Pattern



Passive Gain

Frequency	Efficiency	Average Gain			Max Gain			Max Position	Directivity
		Ver	Hor	Total	Ver	Hor	Total		
2,412,000,000 Hz	30.6 %	-11.5 dBi	-5.5 dBi	-4.6 dBi	-1.4 dBi	1.4 dBi	1.5 dBi	Theta150/Pie150	6.41 dB
2,420,000,000 Hz	30.4 %	-11.8 dBi	-5.4 dBi	-4.7 dBi	-1.5 dBi	1.3 dBi	1.5 dBi	Theta150/Pie300	7.17 dB
2,442,000,000 Hz	30.3 %	-11.9 dBi	-5.4 dBi	-4.9 dBi	-1.5 dBi	1.3 dBi	1.4 dBi	Theta150/Pie300	6.99 dB
2,462,000,000 Hz	30.2 %	-12.1 dBi	-5.3 dBi	-4.9 dBi	-1.6 dBi	1.2 dBi	1.4 dBi	Theta150/Pie285	6.77 dB
2,484,000,000 Hz	30.2 %	-12.2 dBi	-5.3 dBi	-5.0 dBi	-1.6 dBi	1.2 dBi	1.4 dBi	Theta150/Pie285	6.49 dB



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3. Mechanical Specification

3.1 Material Certificate

Model		GEN3(90mm)				
Ant Type		PCB Antenna				
No	Part Name	Part No.	Raw Material (Plating Spec.)	Raw Material Company	Manufacture Company	Processing Company Representative
1	PCB	-	CTI-600, 1.6T / Green			
2	Cable	-	FEP/Copper /ø1.78X245mm			
3	SMA Conn (R/A)		Brass			
4	Tape		3M467MP			
5						

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3.2 Assy Drawing

IR	REVISION	DATE
A	First publication	2022.09.27

NO	PART NO	PART NAME	MATERIAL	QTY	FINISH/COLOR	REMARKS
2			SMA (male) Connector (F/A)	1		
		CABLE	FG-175(φ1.78X30L)	1		
		TAPE	3M 467MP, 130μm	1		
1		PCB	CTI-600, 1.6T	1	Green	

UNIT	mm	GENERAL TOLERANCE		
		IN	A	B
THIRD ANGLE DIMENSION	0~6	±0.05	±0.10	±0.25
	6~18	±0.07	±0.15	±0.35
	18~50	±0.10	±0.20	±0.50
	50~120	±0.15	±0.30	±0.70
SCALE	1	120~250	±0.20	±0.50
	1	250~500	±0.30	±1.50

DESIGNED	CHECKED	APPROVAL	Model
			GEN3(90)
			Name of Title
			PCB ANTENNA
			Drawing No.

CONFIDENTIAL **ROHS**

Prohibited the export information to a random Keitech industrial data.

Note

- Soldering : Pb free
- These dimensions inside of the square are CTQ points.
- PCB color : Green
- Silk printed : Model name / Date of manufacture(year, month, day)
- General tolerance : ±0.2
- All other matters shall be determined after consultation with designers.
- withstanding voltage : 600 V/m (apply to PCB CTI-600)
- Waterproof coating thickness : 200 μm ↑
- Adhesive tape temperature : Operating temperature -40°C ~ +149°C
Low Temperature storage -40°C
High Temperature storage +204°C