

Product Name	Type	Rev.	Hutec	IR
CG890 Main3(Ant3)	PCB+CABLE		Franklin Technology	IR

APPROVAL SHEET

Customer Name : Franklin Technology

Company Name : Hutec

Product Name : CG890 Main3(Ant3)

Description ITEM : Main Ant 3

Customer P/N :

Franklin Technology	구 분	작성자	검토자	합 의	승 인 자
	소속/성명				
	서 명				
Hutec	구 분	작성자	검토자	합 의	승 인 자
	소속/성명	기구/유정석	회로/방구현	품질/권순흥	김영상 수석
	서 명	유정석	방구현	권순흥	김영상

PRODUCT PHOTO	T O P	
	B O T T O M	
Weight(g)	5.5g	

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1. Revision History of Product Specification

1.1 History List of Approval Sheet

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2. RF Specification

2.1 Test Condition

2.1.1 Test Environment (Condition/Method)

① Voltage Standing Wave Ratio(VSWR)

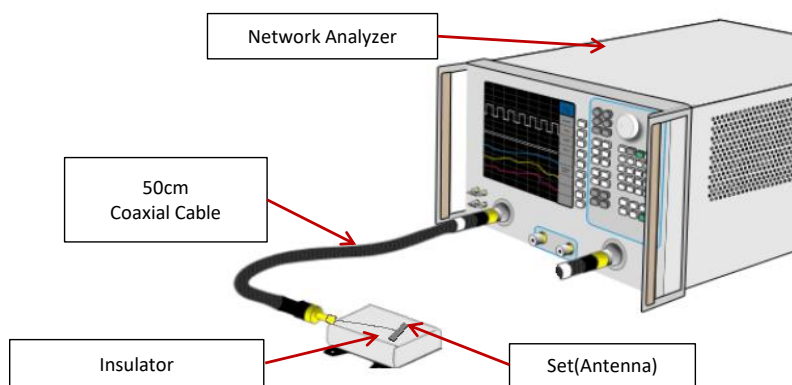
Step 1. Set the frequency range after connect 50cm cable to Network analyzer.

Step 2. Connect Calibration Kit to Network analyzer and calibrate.

Step 3. Fix the cable and keep separation distance over 30cm for reducing effect by Network analyzer.

Step 4. Fix insulator over 5cm on the bottom of measuring antenna.

Step 5. Measure VSWR with setting marker of desired frequency.

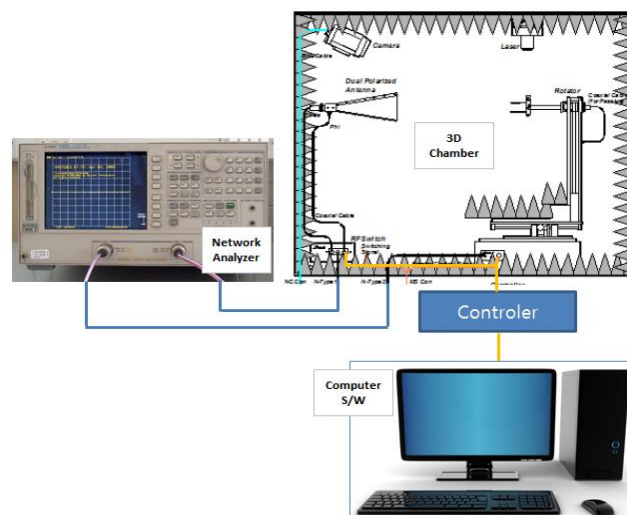


② Radiation Pattern & Gain

Step 1. Calibrate the Chamber system using Horn antenna, and set up the software to control the Chamber system at the same time.

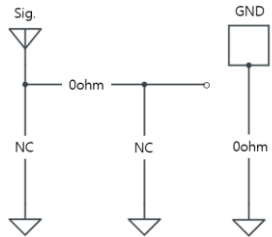
Step 2. Keep the measuring antenna to holder.

Step 3. Measure Gain & efficiency.



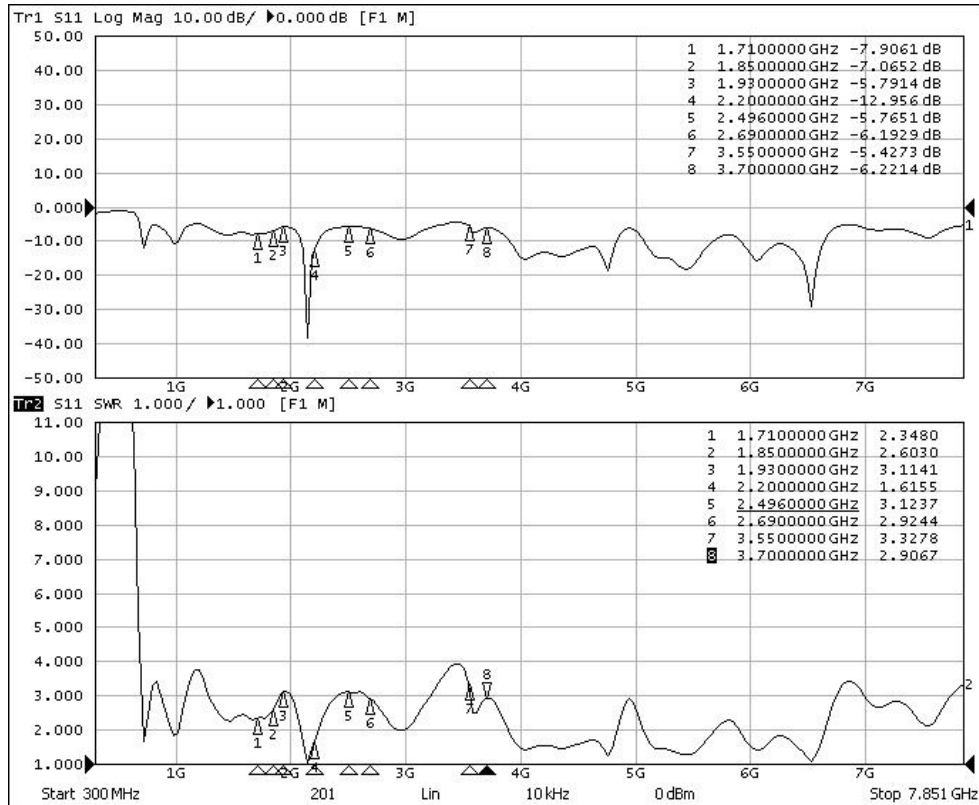
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2.2 Electrical Specification

Main3(Ant3) Antenna				
Frequency	B66(B2,B4,n66)	B41(B7)	B48(n48)	
	1710MHz ~ 2200MHz	2496MHz ~ 2690MHz	3550MHz ~ 3700MHz	
VSWR	≤ 4.1	≤ 4.1	≤ 4.3	
Peak Gain[dBi]	+3.7	+0.4	-0.4	
Avg Gain[dBi]	-3.0	-3.0	-4.78	
Matching Value				
Directivity	Omni-directional			
Polarization	Linear			
Feed Impedance	50 Ohms			
Power Handling	2Watt			

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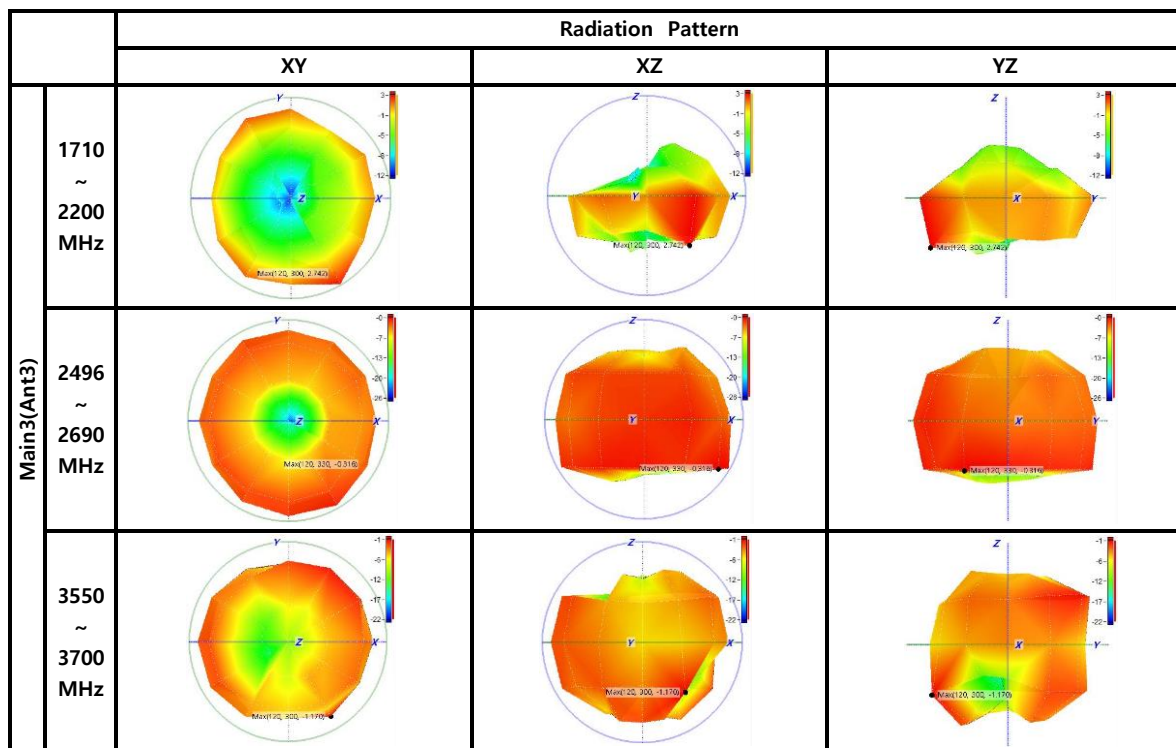
2.2.1 V.S.W.R



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2.2.2 3D Gain & Radiation Pattern

Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
1710	2.742	120 / 300	-11.807	0 / 150	-1.588	69.38
1780	3.347	90 / 300	-14.026	60 / 240	-0.908	81.126
1850	3.726	120 / 150	-19.97	60 / 120	-1.835	65.539
1883	3.66	120 / 300	-18.972	60 / 210	-2.2	60.251
1915	3.134	120 / 300	-17.181	60 / 210	-3.142	48.509
1930	3.303	120 / 300	-16.304	60 / 120	-3.019	49.898
1995	1.828	120 / 300	-24.495	180 / 330	-3.088	49.112
2110	1.982	120 / 300	-19.69	0 / 150	-1.732	67.108
2200	2.658	120 / 300	-16.451	90 / 30	-2.055	62.301
2496	-0.316	120 / 330	-26.196	180 / 30	-3.042	49.637
2574	-0.307	120 / 330	-22.307	180 / 210	-2.799	52.488
2690	0.409	90 / 330	-25.054	180 / 270	-2.974	50.414
3550	-1.17	120 / 300	-21.86	180 / 330	-4.12	38.722
3650	-1.23	150 / 150	-19.928	180 / 210	-4.848	32.749
3700	-0.483	150 / 180	-30.222	180 / 210	-4.244	37.636



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3. Mechanical Specification

3.1 Part List

PART LIST											SIGN	DRAWN	CHECK	APPROVE	
												유정석			
PRODUCT NAME				CG890 Main3(ANT3)				ESTABLISH . DATE		2023.01.06.					
PRODUCT SPECIFICATION				LTE&NR				REVISION DATE		2023.01.06. V10					
CUSTOMER				Franklin Technology											
NO	LEVEL									PART NO.	PART NAME	Material & Description	Q'TY	VENDOR	REMARK
	1	2	3	4	5	6	7	8	9						
0	0									HPC-PCB0024N-IR	PCB	FR4 / 1.0T	1	FMC	Main Ant0,1,2,3
1	0									HPC-CAB0043B-IR	CABLE	MHF4 / Ø0.81	1	FMC	Main Ant3
2	0														
3	0														
4															
5															
6															-
7															-
8															-
9															-
10															-
11															-
12															-
13															-
14															-
15															-
[REVISION HISTORY]															
REV	DATE	DESCRIPTION				REMARKS	REV	DATE	DESCRIPTION				REMARKS		
[REMARKS]															

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3.2 Ass'y Drawing

