Document NO.	KAT-1306-IN022P
Maker Code	KIN-QU4-MS1302
DATE	2013. 06. 28
Page	1 / 9

Model	Type	Rev.	DONGNAM	IR
G66	Built in Antenna		M7 SYSTEM	A

APPROVAL SHEET

Customer : M7 SYSTEM

Company : DONGNAM

Item : Built in Antenna

Model : G66

Customer P/N :

Maker Code : KIN-QU4-MS1302

Department	Investigation	Verification	Approval
Circuit			
Machine			
Safety			

Model	Type	Rev.	DONGNAM	IR
G66	Built in Antenna		M7 SYSTEM	A

▶ Contents ◀

PART NO.	
Maker Code	KIN-QU4-MS1302
DATE	2013. 06. 28
Page	3 / 9

Model	Type	Rev.	DONGNAM	IR
G66	Built in Antenna		M7 SYSTEM	A

1. Revison History of Product Specification

1.1 History List of Approval Sheet

History List of Approval Sheet

NO.	Rev.		Rev. DATE	Detailed Contents of Revision	Amount	Request Dept.	Progress Stage
	M7 SYSTEM	DONGNAM					
1	A	IR	2013.06.28	Approval Publication	—	Quality Dept.	WS2

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

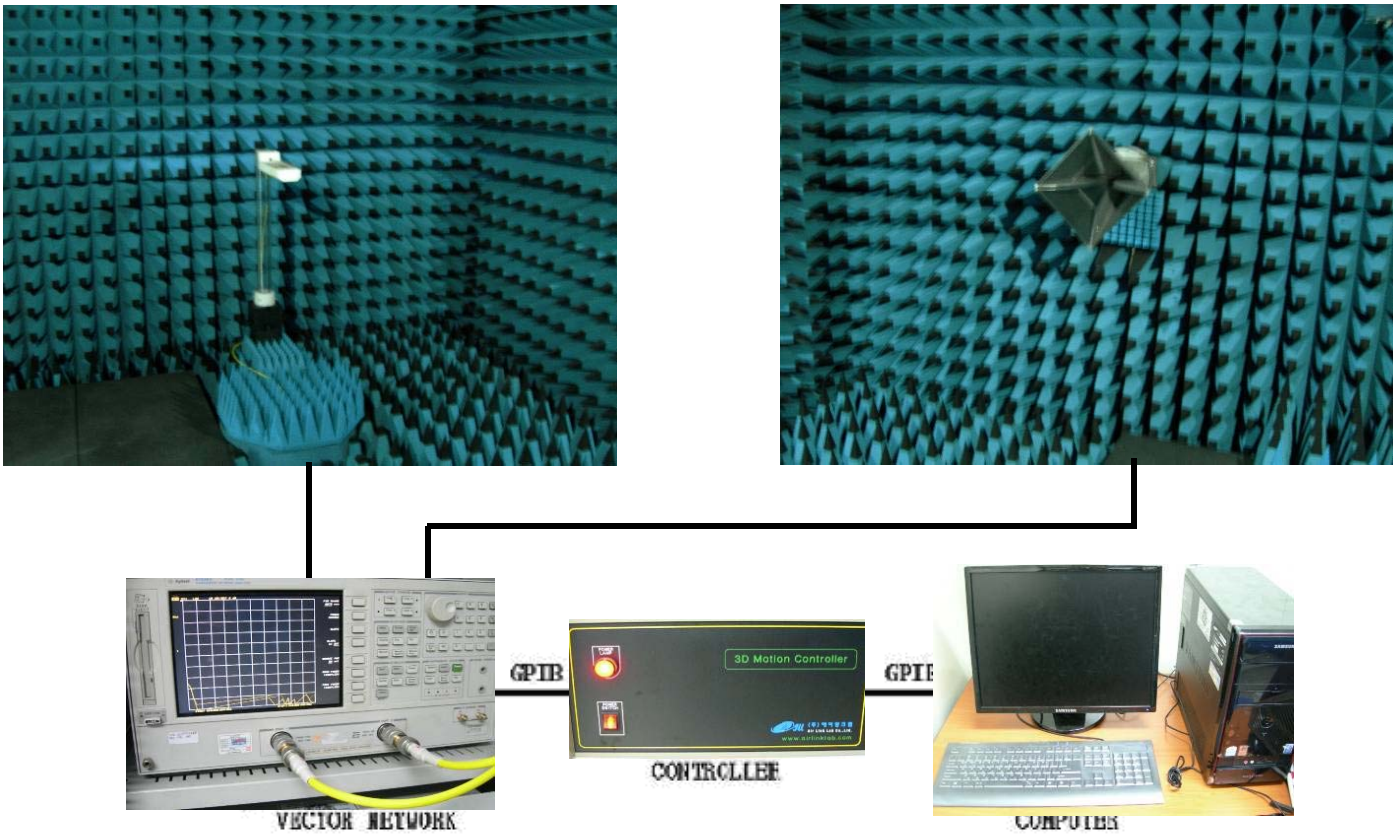
Model	Type	Rev.	DONGNAM	IR
G66	Built in Antenna		M7 SYSTEM	A

② Radiation Pattern adn 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

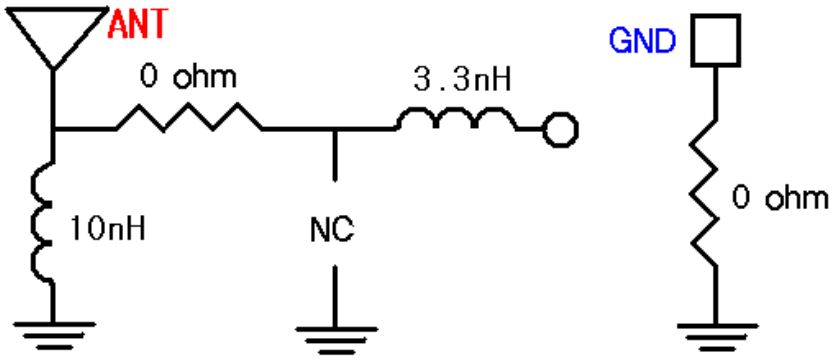
Step 3. Start a software program for chamber system control & measuring.



PART NO.	
Maker Code	KIN-QU4-MS1302
DATE	2013. 06. 28
Page	6 / 9

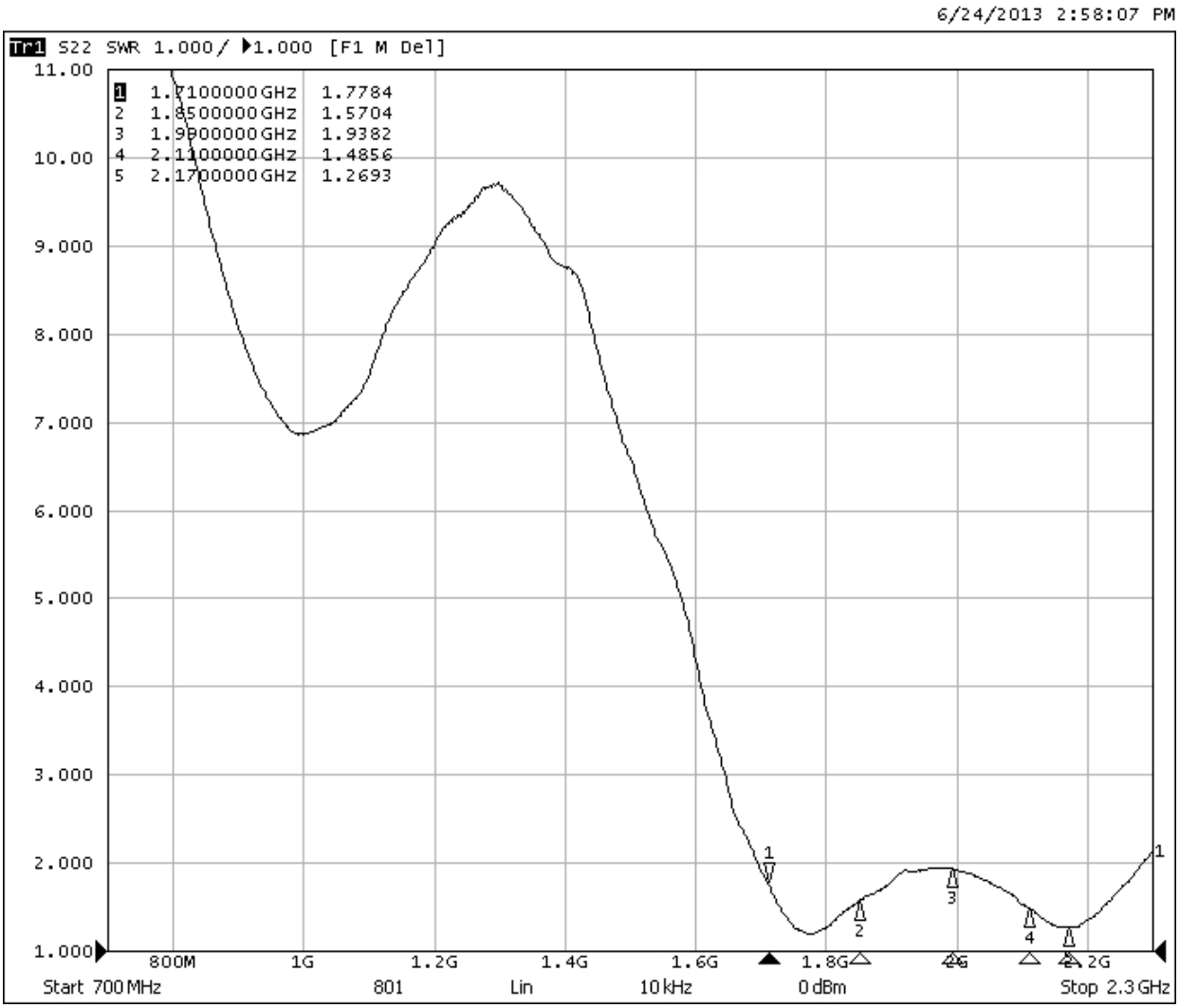
Model	Type	Rev.	DONGNAM	IR
G66	Built in Antenna		M7 SYSTEM	A

2.2 Electrical Specification

Frequency	GSM1800 1710MHz	GSM1800 1785MHz	GSM1800 1805MHz	GSM1800 1880MHz	GSM1900 1850MHz	GSM1900 1910MHz	GSM1900 1930MHz	GSM1900 1990MHz	UMTS Band4 1710MHz	UMTS Band4 1755MHz	UMTS Band4 2110MHz	UMTS Band4 2155MHz
VSWR	≤ 2.5	≤ 2.5	≤ 2.5	≤ 2.5	≤ 2.5	≤ 2.5	≤ 3.0	≤ 3.0	≤ 2.5	≤ 2.5	≤ 2.5	≤ 2.5
Peak Gain (dBi)	≤ -1.0	≤ 0.5	≤ -1.0	≤ 0.5	≤ 1.0	≤ 1.0	≤ 2.0	≤ 3.0	≤ -1.0	≤ 0.0	≤ 2.0	≤ 0.5
Average Gain (dBi)	≤ -5.5	≤ -3.5	≤ -5.0	≤ -3.5	≤ -3.0	≤ -3.0	≤ -2.5	≤ -2.0	≤ -5.5	≤ -4.0	≤ -3.5	≤ -5.0
Directivity	Omni-directional											
Polarization	Linear											
Matching Value												

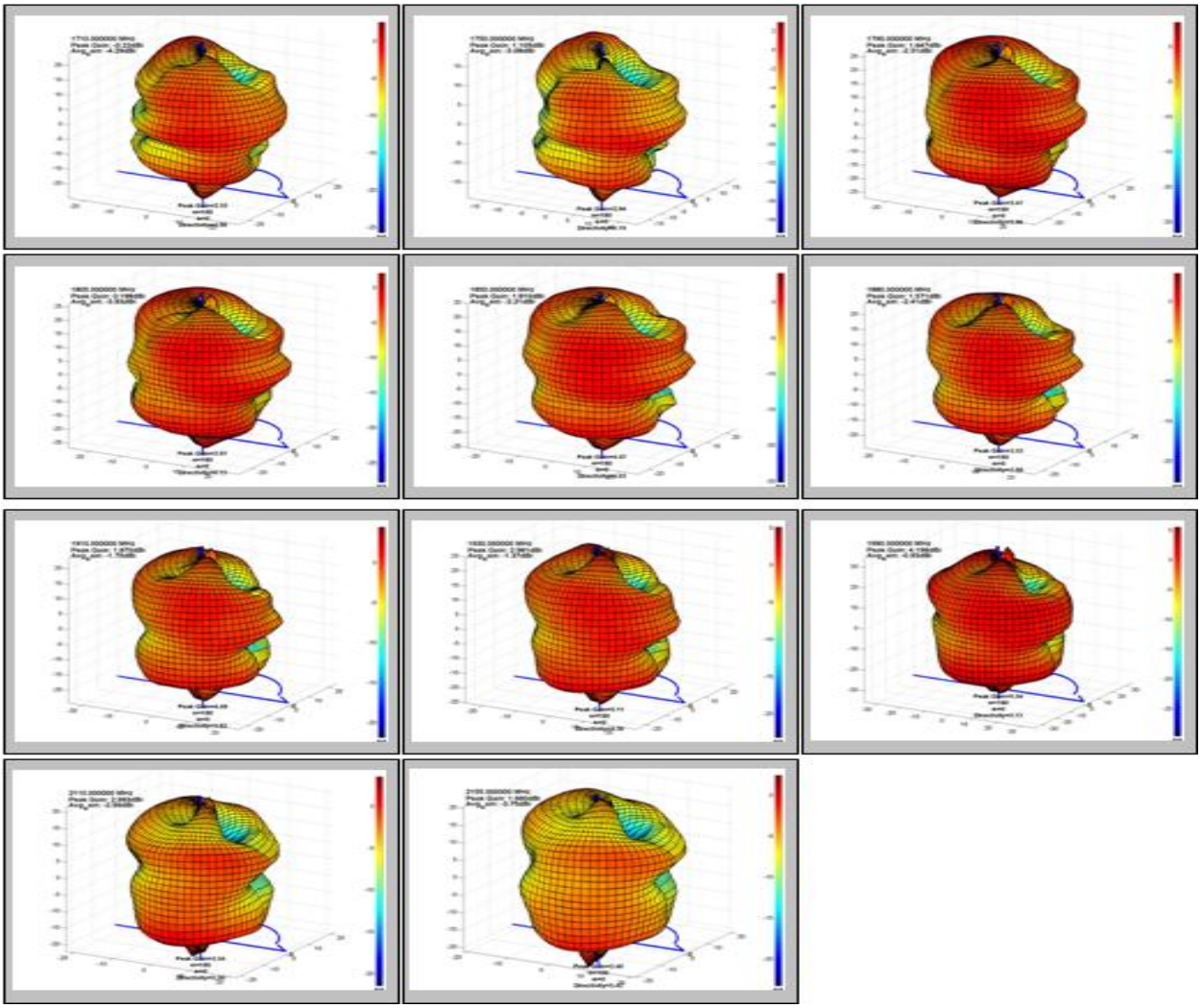
2.2.1 Electrical Spec. of Set (With VSWR)

BAR TYPE



2.2.2 Passive Gain & 3D Pattern

BAR TYPE



Frequency	Efficiency	Average Gain			Max Gain			Max Position	Directivity
		Ver	Hor	Total	Ver	Hor	Total		
1710.000000 MHz	37.2 %	-7.6 dBi	-7.0 dBi	-4.3 dBi	-0.5 dBi	-0.4 dBi	-0.2 dBi	Theta180/Pie0	4.08 dB
1750.000000 MHz	49.2 %	-6.5 dBi	-5.7 dBi	-3.1 dBi	-0.1 dBi	-0.1 dBi	1.1 dBi	Theta180/Pie0	4.19 dB
1790.000000 MHz	58.7 %	-5.7 dBi	-5.0 dBi	-2.3 dBi	0.5 dBi	0.5 dBi	1.6 dBi	Theta180/Pie0	3.96 dB
1805.000000 MHz	40.5 %	-7.3 dBi	-6.6 dBi	-3.9 dBi	-0.9 dBi	-0.9 dBi	0.2 dBi	Theta180/Pie0	4.13 dB
1850.000000 MHz	60.0 %	-5.5 dBi	-5.0 dBi	-2.2 dBi	1.0 dBi	1.1 dBi	1.8 dBi	Theta180/Pie0	4.03 dB
1880.000000 MHz	57.3 %	-5.5 dBi	-5.3 dBi	-2.4 dBi	0.5 dBi	0.5 dBi	1.6 dBi	Theta180/Pie0	3.99 dB
1910.000000 MHz	66.7 %	-4.7 dBi	-4.9 dBi	-1.8 dBi	1.5 dBi	1.5 dBi	1.9 dBi	Theta180/Pie0	3.63 dB
1930.000000 MHz	72.9 %	-4.5 dBi	-4.3 dBi	-1.4 dBi	2.1 dBi	2.1 dBi	3.0 dBi	Theta180/Pie0	4.36 dB
1990.000000 MHz	80.6 %	-4.3 dBi	-3.6 dBi	-0.9 dBi	2.5 dBi	2.6 dBi	4.2 dBi	Theta180/Pie0	5.13 dB
2110.000000 MHz	55.4 %	-5.7 dBi	-5.5 dBi	-2.6 dBi	0.7 dBi	0.5 dBi	3.0 dBi	Theta180/Pie0	5.56 dB
2155.000000 MHz	42.1 %	-6.8 dBi	-6.7 dBi	-3.8 dBi	-0.5 dBi	-0.6 dBi	1.7 dBi	Theta180/Pie0	5.42 dB

3. Mechanical Specification

3.1 Assy Drawing