



PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	1 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

For specification certification Sheet

Customer : LGIT

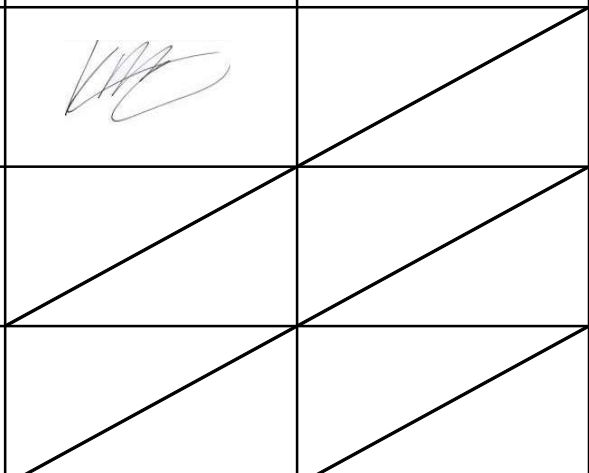
Company : KEITECH

Product Name : Int F-PCB Antenna

Model : Indoor Thread

Customer P/N : 2ANE00022A

Maker Code : KT-WIFI-KM2602

Department	Investigation	Verification	Approval
Circuit			
Machine			
Safety			



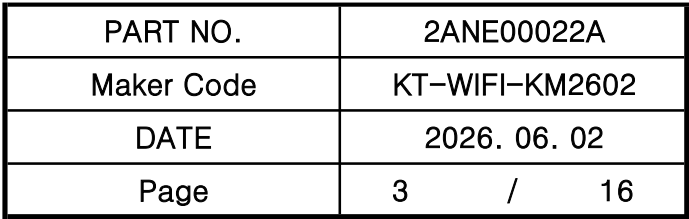
KEITECH Co., LTD
1312ho 80,Jomaru-ro 385beon-gil
Bucheon-si,Gyeonggi-do, Korea
Tel) +82 70-8670-6980 Fax) +82 2-6442-7314

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	2 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

► Contents ◀

1. Revision History of Product Specification	03 / 16
1.1 History List of Approval Sheet	03 / 16
2. Circuit Specification	04 / 16
2.1 Test Setting	04 / 16
2.1.1 Test Environment (Condition/Method)	04 / 16
2.2 Electrical Specification	05 / 16
2.2.1 Electrical Spec. of Piece (With VSWR)	06 / 16
2.2.2 Passive Gain & 3D Pattern	07 / 16
3. Mechanical Specification	08 / 16
3.1 Material Certificate	08 / 16
3.2 Assy Drawing	09 / 16
3.3 Packing Spec	10 / 16
4. Quality Specification	11 / 16
4.1 Required Test (With Report)	11 / 16
4.1.1 Apperance and Size DATA	12 / 16
4.1.2 Thermal Shock	13 / 16
4.1.3 High humidity Storage	14 / 16
4.1.4 High Temperature Storage	15 / 16
4.1.5 Low Temperature Storage	16 / 16



Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

1.1 History List of Approval Sheet

[illegible]

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	4 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

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

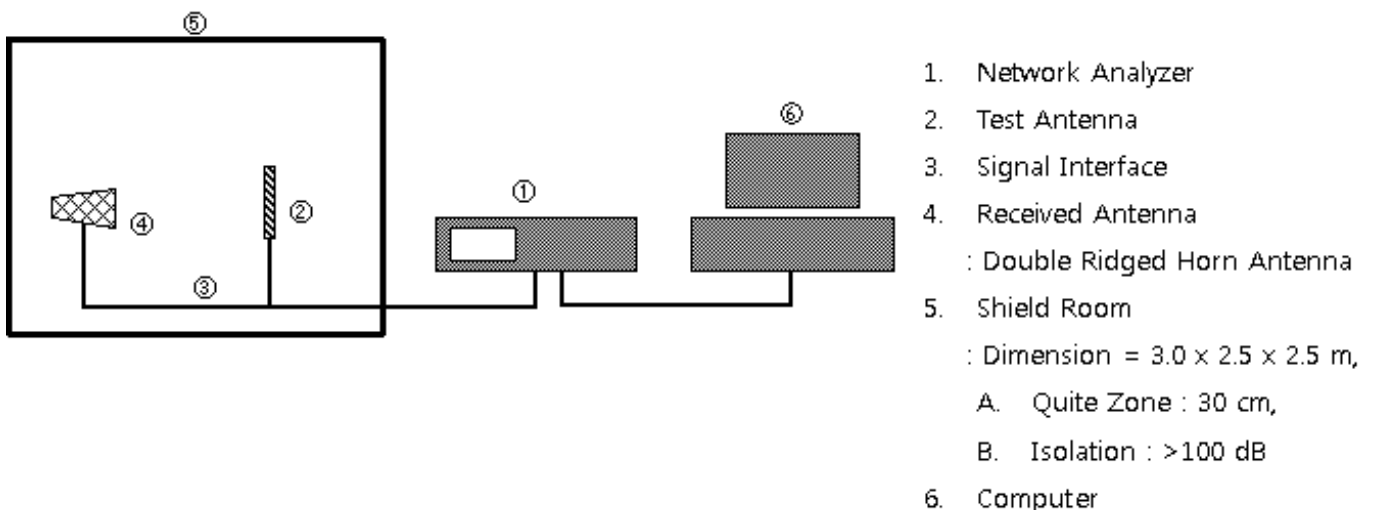
② Radiation Pattern and Gain

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

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

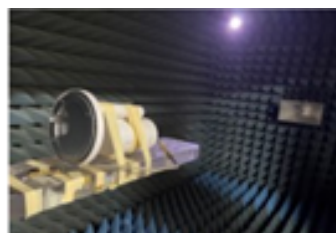
Step 2. Change over from a horn antenna to measuring antenna on target positioner

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



●Antenna Gain Test Equipment
Measurement system
Chandwoo System
Calibration date: October 21. 2024

Network Analyzer
Agilent 5071B
Calibration date: May 13. 2024





PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	5 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

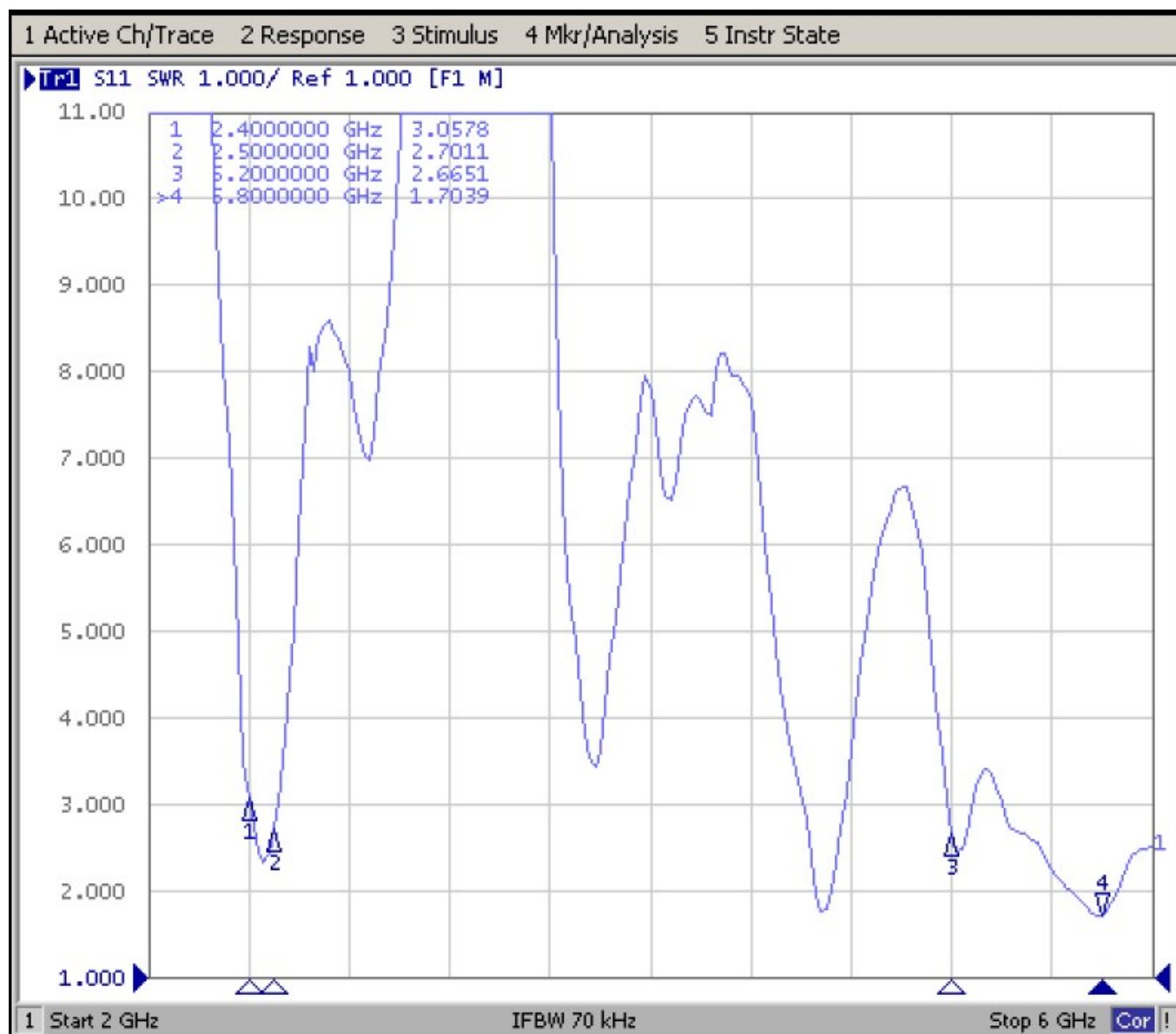
2.2 Electrical Specification

Indoor Thread				
Frequency	2400MHz	2500MHz	5200MHz	5800MHz
VSWR	≤ 3.5	≤ 3.5		
Peak Gain (dBi)	1.0	1.0		
Directivity	Omni-directional			
Polarization	Linear			

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	6 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

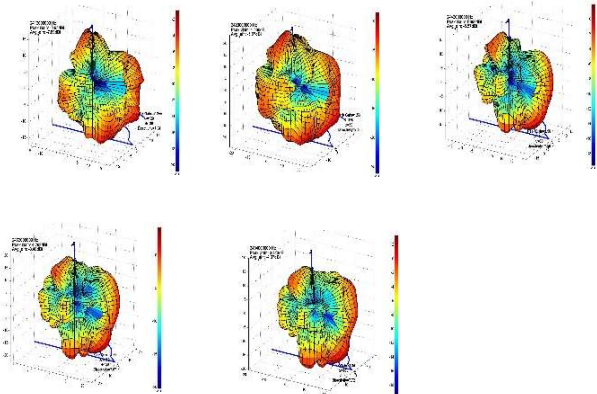
2.2.1 Electrical Spec. of Piece (With VSWR)



PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	7 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

2.2.2 Passive Gain & 3D Pattern

2GHz_3D Pattern	5GHz_3D Pattern
	

Passive Gain

Frequency	Efficiency	Average Gain			Max Gain		
		Ver	Hor	Total	Ver	Hor	Total
2,400,000,000 Hz	17.2 %	-10.1 dBi	-9.4 dBi	-7.9 dBi	0.4 dBi	-1.5 dBi	0.6 dBi
2,420,000,000 Hz	17.5 %	-10.0 dBi	-10.3 dBi	-7.8 dBi	0.3 dBi	-1.6 dBi	0.6 dBi
2,442,000,000 Hz	18.0 %	-9.8 dBi	-10.1 dBi	-7.4 dBi	0.9 dBi	-1.0 dBi	1.0 dBi
2,462,000,000 Hz	17.9 %	-9.9 dBi	-10.2 dBi	-7.4 dBi	0.9 dBi	-0.9 dBi	1.0 dBi
2,500,000,000 Hz	17.6 %	-10.0 dBi	-10.7 dBi	-7.7 dBi	0.7 dBi	-0.5 dBi	0.8 dBi



PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	8 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

3. Mechanical Specification

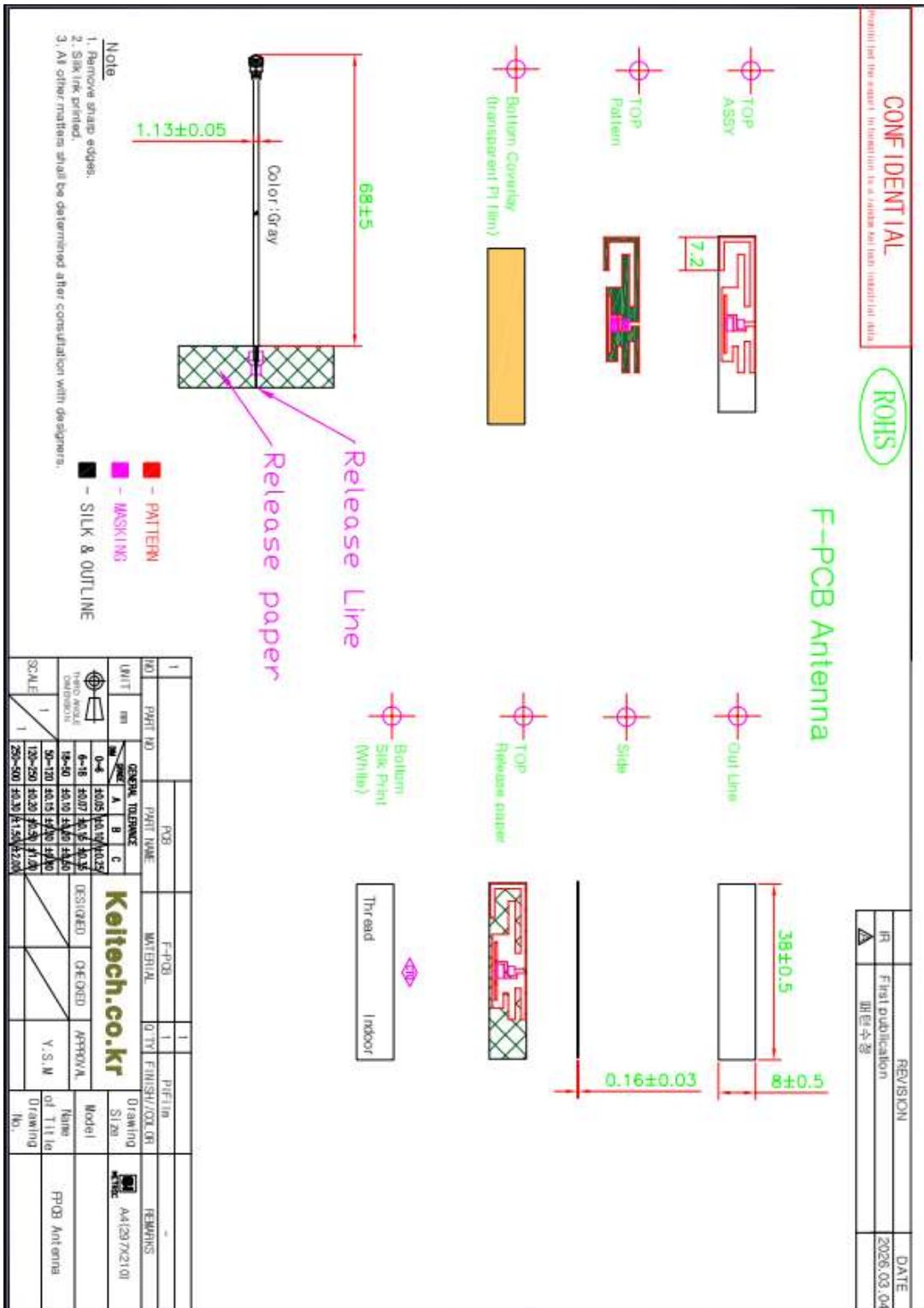
3.1 Material Certificate

Model		Indoor Thread				
Ant Type		Int F-PCB Antenna				
No	Part Name	Part No.	Raw Material (Plating Spec.)	Raw Material Company	Manufacture Company	Processing Company Representative
1	F-PCB	-	F-PCB, 0.16T / PI Film	INTERNATION AL LAMINATE MATERIAL	Gaoke Ant Co.,Ltd	Chen Biyun +86-13570069921
2	Cable	-	FEP/Copper Φ1.13*68mm/Gray	Yuanda		

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	9 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

3.2 Assy Drawing



PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	10 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

3.3 Packing Spec.

CONFIDENTIAL

Prohibited the export / importation to a foreign nation (industrial) area.

② IN POLYPACK

③ OUT POLYPACK

② IN BOX

ROHS

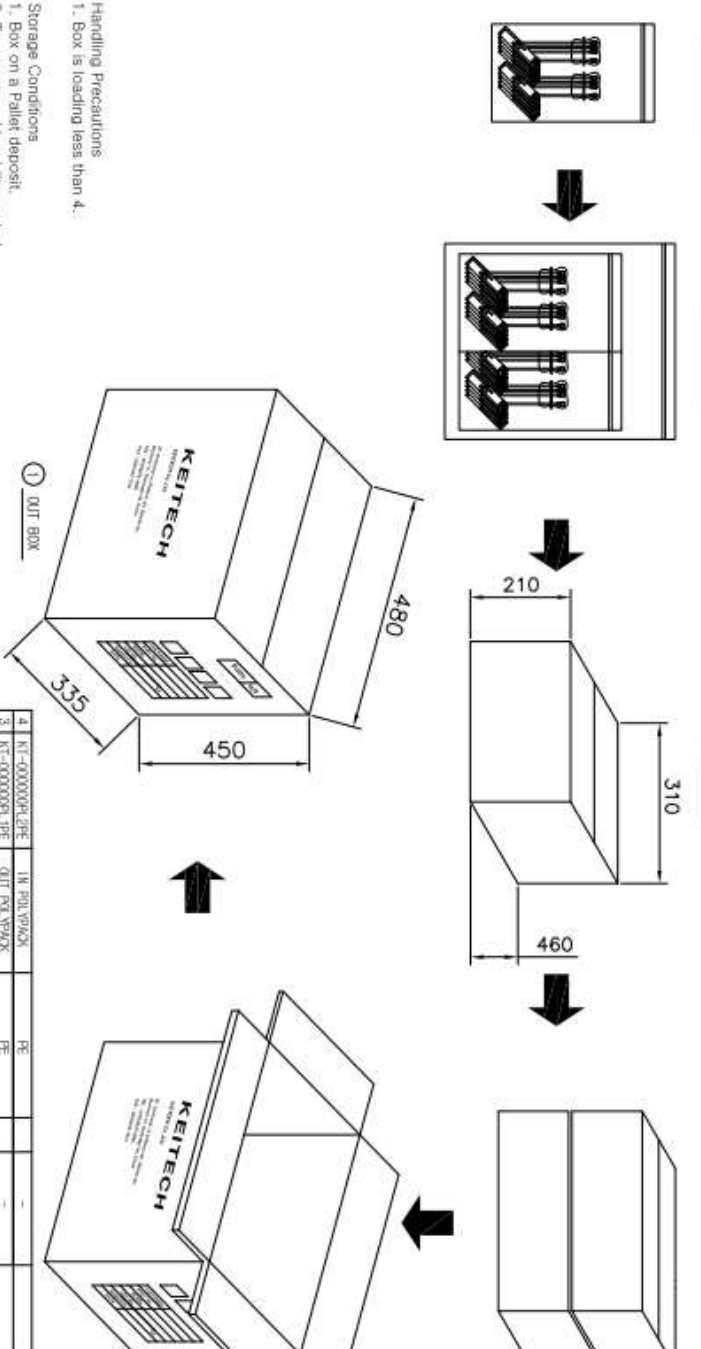
MARK

IR

First publication

REVISION

DATE



Handling Precautions

1. Box is loading less than 4.

Storage Conditions

1. Box on a Pallet deposit.

2. Temperature / humidity control
→ At room temperature: 10 ~ 30 °C
→ Humidity: 60% or less

Note

1. ~~XXXX~~ : Goal orientation and goals of cardboard.

2. OUT-BOX After machining process will not damage the surface clean.

3. Design begins on goods that by submitting for approval.

4. General tolerances : ± 5.0

NO	PART NO	PART NAME	QTY	UNIT	REMARKS
1	KT-000000001	IN POLYPACK	1	PC	-
2	KT-000000002	OUT POLYPACK	1	PC	-
3	KT-000000003	IN BOX	2	PC	-
4	KT-000000004	OUT BOX	1	PC	-

UNIT	mm	inch	mm	inch	mm	inch
GENERAL TOLERANCE	A	B	C			
0-10	±0.1	±0.004	±0.1			
10-20	±0.1	±0.004	±0.1			
20-30	±0.1	±0.004	±0.1			
30-40	±0.1	±0.004	±0.1			
40-50	±0.1	±0.004	±0.1			
50-60	±0.1	±0.004	±0.1			
60-70	±0.1	±0.004	±0.1			
70-80	±0.1	±0.004	±0.1			
80-90	±0.1	±0.004	±0.1			
90-100	±0.1	±0.004	±0.1			

SCALE	1	10	20	30	40	50	60	70	80	90	100
mm	1	10	20	30	40	50	60	70	80	90	100
inch	1	10	20	30	40	50	60	70	80	90	100

Keitech.co.kr

Model

Name of Title

PKG.ING

Size

A4(297x210)

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	11 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

4. Quality Specification

4.1 Required Test (With Report)

Reliability Test Report		작 성	검 토	승 인
				
Objective	Approval	PERSON IN CHARGE	Park Byoung Wook	
TEST DATE	2026.03.14~2026.03.23.	DATE	2026.03.23	
ITEM	Thread Antenna	MODEL	Indoor Thread	
Request	R & D	Quantity	20ea	
Information	PCB, CABLE	CUSTOMMER	LGIT	
RESULT		PASS		

Test Item			Test Conditions / Judgment Standards	RESULT
1	Estimation of Documents		- It is checked missing and error of commissioned paper that drawing, approval sheet, design samples etc. - Our requirements and test specifications are satisfied.	OK
2	Characteristic	Appearance	- It is checked abnormalities of color, printing specifications compared to design sample. - It is checked abnormalities of appearance defect visually. - It should not have ratch, strain, burr, discoloration, eccentricity, stain etc.	OK
		Dimensions	- It should be satisfied management standards of drawing, approval sheet. - It is measured major point as a vernier caliper, microscope. * Basic measurement points: length, width, thickness, etc.(Important point)	OK
		Electrical Characteristics	- It should be satisfied management standards of drawing, approval sheet. - Shall be tested as follows 1. It is recommended to be tested equipment setting and test environment in the space completely shielded from external radiation. 2. Network Analyzer and LCR meter are calibrated before test. 3. It is measured inductance using test jig.	OK

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	12 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

Test Item	Test Conditions / Judgment Standards	RESULT
3 Thermal Shock	1. Test conditions – Test temperature/Time: –40℃/45min, 85℃/45min – Test Cycle: 27 Cycle 2. Standards of Judgment – It should not be change of inductance and have problem at using, be damaged of appearance..	OK
4 High humidity Storage	1. Test conditions – Test temperature/Humidity: 60℃/95% – Test time: room temperature 1Hr after storage 48Hr 2. Standards of Judgment – It should not be change of inductance and have problem at using, be damaged of appearance.	OK
5 High Temperature Storage	1. Test conditions – Test temperature: 85℃ – Test time: room temperature 1Hr after storage 48Hr 2. Standards of Judgment – It should not be change of inductance and have problem at using, be damaged of appearance.	OK
6 Low Temperature Storage	1. Test conditions – Test temperature: –40℃ – Test time: room temperature 1Hr after storage 48Hr 2. Standards of Judgment – It should not be change of inductance and have problem at using, be damaged of appearance. .	OK

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	13 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

4.1.2 Thermal Shock

TEST RESULT	2026.03.14~2026.03.23.		PERSON IN CHARGE		Park Byoung Wook	
TEST ITEM	Environment Test		TEST Condition		-40℃/45min ~ +85℃/45min (27 Cycle)	
	Thermal Shock					
SPEC	BEFORE(VSWR)				RESULT	
Frequency	2400MHz	2500MHz				
SPEC	Max 3.5	Max 3.5				
1	3.30	3.38			PASS	
2	3.32	3.30			PASS	
3	3.33	3.37			PASS	
4	3.38	3.36			PASS	
5	3.38	3.33			PASS	
MAX	3.38	3.38				
MIN	3.30	3.30				
AVG.	3.34	3.35				
SPEC	AFTER(VSWR)				RESULT	
Frequency	2400MHz	2500MHz				
SPEC	Max 3.5	Max 3.5				
1	3.33	3.32			PASS	
2	3.39	3.31			PASS	
3	3.35	3.32			PASS	
4	3.34	3.34			PASS	
5	3.39	3.31			PASS	
MAX	3.39	3.34				
MIN	3.33	3.31				
AVG.	3.36	3.32				

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	14 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

4.1.3 High humidity Storage

TEST DATE	2026.03.14~2026.03.23.		PERSON IN CHARGE		Park Byoung Wook	
TEST ITEM	Environment Test		TEST Condition		60℃ / 95% / 48Hrs	
	High Humidity					
SPEC	BEFORE(VSWR)				RESULT	
Frequency	2400MHz	2500MHz				
SPEC	Max 3.5	Max 3.5				
1	3.36	3.30			PASS	
2	3.38	3.30			PASS	
3	3.33	3.37			PASS	
4	3.37	3.34			PASS	
5	3.33	3.31			PASS	
MAX	3.38	3.37				
MIN	3.33	3.30				
AVG.	3.35	3.32				
SPEC	AFTER(VSWR)				RESULT	
Frequency	2400MHz	2500MHz				
SPEC	Max 3.5	Max 3.5				
1	3.35	3.37			PASS	
2	3.35	3.33			PASS	
3	3.33	3.32			PASS	
4	3.34	3.37			PASS	
5	3.37	3.37			PASS	
MAX	3.37	3.37				
MIN	3.33	3.32				
AVG.	3.35	3.35				

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	15 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

4.1.4 High Temperature Storage

TEST DATE	2026.03.14~2026.03.23.		PERSON IN CHARGE	Park Byoung Wook	
TEST ITEM	Environment Test		TEST Condition	85℃/ 48Hrs	
	High Temperature				
SPEC	BEFORE(VSWR)				RESULT
Frequency	2400MHz	2500MHz			
SPEC	Max 3.5	Max 3.5			
1	3.34	3.34			PASS
2	3.34	3.33			PASS
3	3.33	3.36			PASS
4	3.34	3.39			PASS
5	3.37	3.39			PASS
MAX	3.37	3.39			
MIN	3.33	3.33			
AVG.	3.34	3.36			
SPEC	AFTER(VSWR)				RESULT
Frequency	2400MHz	2500MHz			
SPEC	Max 3.5	Max 3.5			
1	3.39	3.39			PASS
2	3.39	3.40			PASS
3	3.39	3.30			PASS
4	3.30	3.32			PASS
5	3.31	3.37			PASS
MAX	3.39	3.40			
MIN	3.30	3.30			
AVG.	3.36	3.36			

PART NO.	2ANE00022A
Maker Code	KT-WIFI-KM2602
DATE	2026. 06. 02
Page	16 / 16

Model	Type	Rev.	KEITECH	IR
Indoor Thread	Int F-PCB Antenna		LGIT	A

4.1.5 Low Temperature Storage

TEST DATE	2026.03.14~2026.03.23.		PERSON IN CHARGE		Park Byoung Wook	
TEST ITEM	Environment Test		TEST Condition		-40℃ / 48Hrs	
	Low Temperature					
SPEC	BEFORE(VSWR)				RESULT	
Frequency	2400MHz	2500MHz				
SPEC	Max 3.5	Max 3.5				
1	3.38	3.37			PASS	
2	3.39	3.31			PASS	
3	3.36	3.36			PASS	
4	3.35	3.37			PASS	
5	3.32	3.33			PASS	
MAX	3.39	3.37				
MIN	3.32	3.31				
AVG.	3.36	3.35				
SPEC	AFTER(VSWR)				RESULT	
Frequency	2400MHz	2500MHz				
SPEC	Max 3.5	Max 3.5				
1	3.37	3.34			PASS	
2	3.33	3.37			PASS	
3	3.40	3.37			PASS	
4	3.36	3.35			PASS	
5	3.32	3.39			PASS	
MAX	3.40	3.39				
MIN	3.32	3.34				
AVG.	3.36	3.36				