

**Customer : LG**

Approval No.

ISSUE

0.1

## Specifications for Approval

Product Name : 17Z90P ANTENNA , ASSY

Vendor Model Name : LUXSHARE-ICT

Customer Part No. : EAA65971301

Vendor P/N : L1LRF006-CS-H

Condition : 1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_  
4. \_\_\_\_\_

The product above is approved.

<b>LG MC Approval</b>	Category	Checked	Reviewed	Agreed	Approved
	Name				
	Signature				
<b>Vendor Approval</b>	Category	Designed	Checked	Agreed	Approved
	Name	张文	陈宝球	蒋志坚	李坤松
	Signature	张文	陈宝球	蒋志坚	李坤松

Vendor Name :LUXSHARE-ICT

Address :BaiYun Road, Industrial Park West Area, Ji  
An City, JiangXi Province, 343100, China  
XianMao Road, Economic Development Zone, Bo  
zhou City, Anhui Province, 236800, China  
Building A, West Sanyo New Industrial Zone,  
oyster I, Shajing Street, Baoan District, S  
henzhen, China

P/N:L1LRF006-CS-H

**SPECIFICATION**  
MODEL NAME:17Z90P ANT , ASSY

REV.NO:0.1

**History of Revision**

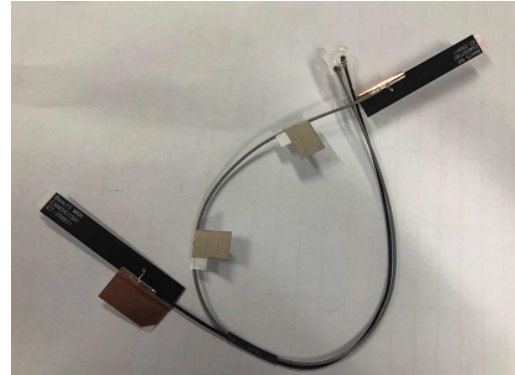
Revision	Date	Item	Contents of Revision Change	Basis
ISSUE 0.1	2020.07.20		Initial Release	NA



# 17Z90P ANTENNA ASM

## Product Feature and Image

PRODUCT NAME	17Z90P ANTENNA ASM	
Customer P/N	EAA65971301	
Vendor P/N	L1LRF006-CS-H	
NET WEIGHT	1.9+/-10%	
SIZE	CABLE	L=239MM
	PCB	L*W=40*6MM



<b>P/N: L1LRF006-CS-H</b>	<b>SPECIFICATION</b> <b>MODEL NAME: 17Z90P ANT ASS'Y</b>	<b>REV.NO:0.1</b>
---------------------------	---	-------------------

**SPECIFICATION**

**Test items**

1) Appearance and structure check

Check item	Judgement
Visual Inspection	The shape, structure, and color should be consistent with the limit sample and related specifications
Standard	These defects should not be allowed such as damage, corrosion, sink, scratches, etc.

2) Dimension Check : Measuring important dimensions

Dimensions should meet the requirements of the acknowledgment

3) Mate / Unmating Force : mate connector with a suitable gauge at rate of 25±3 mm/min.  
measure force when gauge reaches surface of connector.

mating Force	unmating Force
	5 ~ 20 N (or 500g ~ 2000g)
30N (or 3000g) Max	3 ~ 20 N (or 300g ~ 2000g) Final 30 Cycles

4) Disintegration : Parts are allowed to be chiseled, not inserted, dirty etc.

soldering state of PCB like cold welding, less welding, over welding are not allowed. The length of the parts should be suitable.  
and parts can not be touched each other.

5) Tape adhesion : Double Sided tape should be not slipped  
should be satisfied standard specification.

6) VSWR

Test equipment : Network Analyzer equipment

Frequency(unit MHz)	MAIN	AUX
VSWR	2.45~3.0GHZ<10 5.0~5.9GHZ<5 6.31~7.2GHZ<5	2.45~3.0GHZ<8 5.4~5.9GHZ<5 6.31~7GHZ<5

P/N: L1LRF006-CS-H	<b>SPECIFICATION</b> <b>MODEL NAME: 17Z90P ANT ASS'Y</b>	REV.NO:0.1
--------------------	---	------------

**SPECIFICATION**

**Test items**

7) Gain

Test equipment : Network Analyzer equipment

Frquency(MHZ)	Efficiency(%)
2400	>30
2450	>30
2500	>30
5150	>30

8) Thermal Shock

Condition	Temperature : 85°C (30min), -40°C (30min) 10 Cycles. Being Placed 2 Hours
Judgement	Product's mechanism and VSWR should be OK.

9) High Temperature

Condition	Temperature : 80°C, 96H, Being Placed 2 Hours.
Judgement	Product's mechanism and VSWR should be OK.

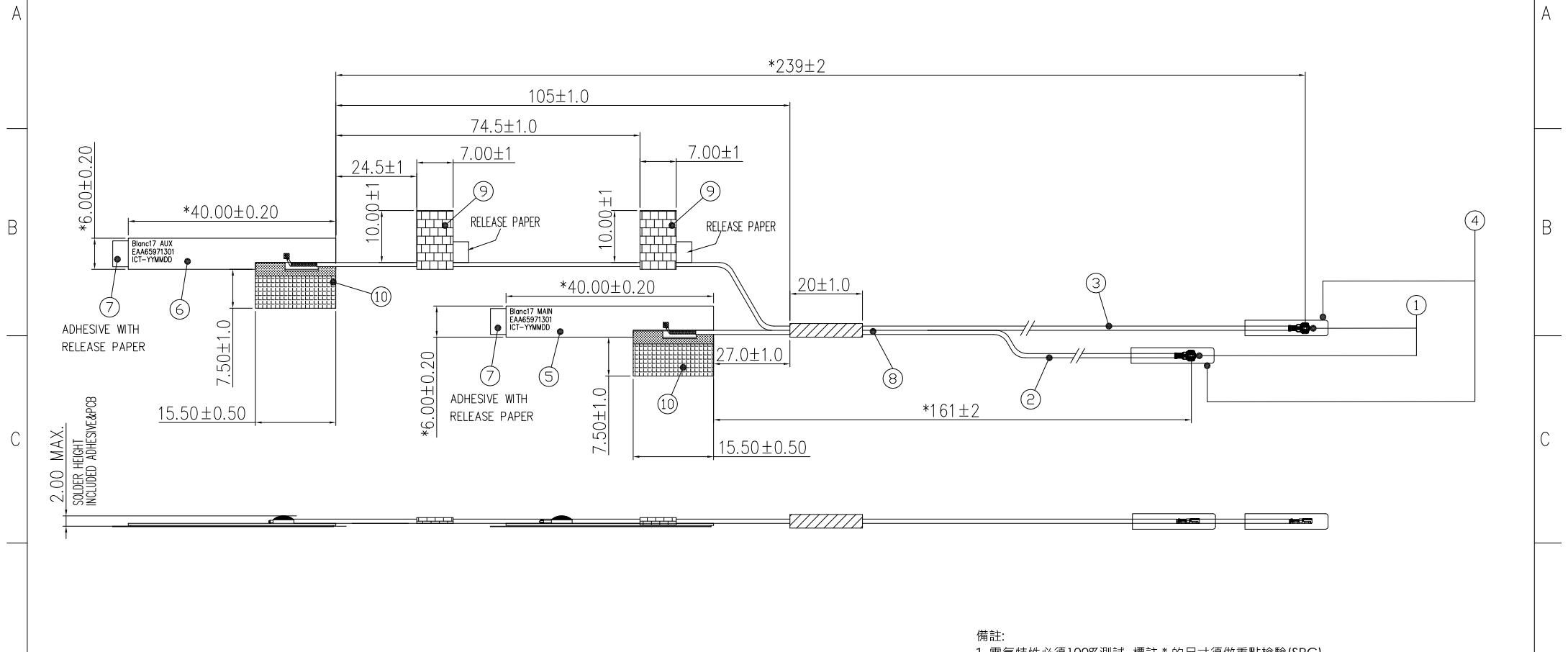
10) Low Temperature

Condition	Temperature : -20°C, 96H, Being Placed 2 Hours.
Judgement	Product's mechanism and VSWR should be OK.

P/N: L1LRF006-CS-H	SPECIFICATION MODEL NAME: 17Z90P ANT ASS'Y	REV.NO:0.1
<b>SPECIFICATION</b>		
<b>Test items</b>		
12) High Temperature and humidity test		
Condition	Temperature : 40°C, Humidity : 90 – 95% 96H, Being Placed 2 Hours.	
Judgement	Product's mechanism and VSWR should be OK.	
13) Virbration Test		
Condition	Class V3 [0.27 Grms, 10-500Hz, 50min, Per 3 axes (X,Y,Z)]	
Judgement	Product's mechanism and VSWR should be OK.	
14) Drop Test		
Condition	Height : 100cm to Iron Plate (Thickness : 5mm or more) one edge/Three corners/six faces are once total : 10 times	
Judgement	there should be no crack and or damage parts.	

**RoHS + HF**

REV	DESCRIPTION	DESIGN	DATE
X1	NEW DRAWING	JACK	2020.06.19



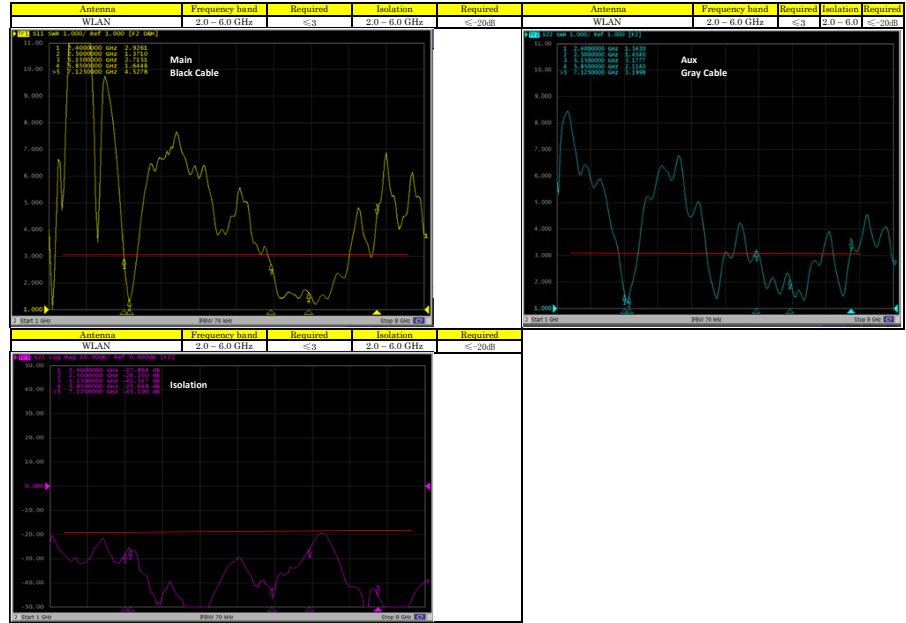
- 備註:
1. 電氣特性必須100%測試, 標註 \* 的尺寸須做重點檢驗 (SPC)
  2. 所有焊接處焊錫不可超出PCB及塑件外
  3. 焊接處焊錫不可超出PCB及塑件外
  4. 線材焊接處焊錫不可超出鍍金區域範圍
  5. 焊錫不可有虛焊, 假焊, 錫尖, 汙點等不良
  6. 焊錫表面需均勻且光滑飽滿
  7. 本產品使用原物料及製程必須符合立訊"QW-QA-43"環境管理物質相關規定
  8. 此產品及其附屬包裝材料的均質成份須滿足無鹵管制要求:  
BR<900PPM, CL<900PPM, BR+CL<1500PPM

ITEM	PART NO	NAME	DESCRIPTION	Q'TY
10	---	CU FOIL	T=0.10MM	2
9	---	CONDUCTIVE TAPE	L=10mm, W=7mm	2
8	---	HEAT-SHRINKING TUBE	L=14mm, COLOR : BLACK	1
7	---	ADHESIVE	3M 9888T T=0.15MM	2
6	---	AUX PCB	FR4 , L40 x W6 x T 0.4mm	1
5	---	MAIN PCB	FR4 , L40 x W6 x T 0.4mm	1
4	---	TRANSPARENT TUBE	L=16MM	2
3	---	AUX CABLE	DIA. 0.81MM SINGLE ENDED COAXIAL LOW LOSS CABLE (COLOR:GRAY)	1
2	---	MAIN CABLE	DIA. 0.81MM SINGLE ENDED COAXIAL LOW LOSS CABLE (COLOR:BLACK)	1
1	---	CONNECTOR	I-Pex 20611 FOR CABLE DIA. 0.81MM PLUG CONNECTOR	2

TOLERANCE (UNLESS SPECIFIED)		CUSTOMER P/N: EAA65971301	<b>LUXSHARE-ICT</b>			
*X	±0.5					
*X.X	±0.25					
*X.XX	±0.10					
*X.XXX	±0.05	APPD:	TITLE: 17Z90P ANTENNA, ASSY			
UNITS:	mm	CHKD:	PART NO:			
THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF LUXSHARE-ICT AND SHALL NOT BE REPRODUCED, COPIED OR CUED IN ANY MANNER WITHOUT THE PRIOR WRITTEN CONSENT OF LUXSHARE-ICT.		DRAW: JACK	SCALE SHEET SIZE REV			
			1:1	1/1	A4	X1

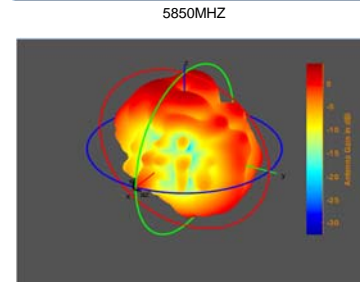
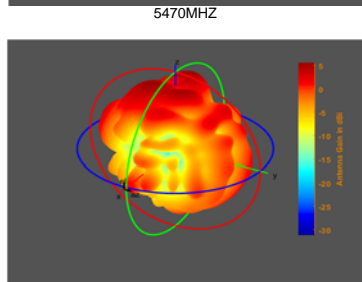
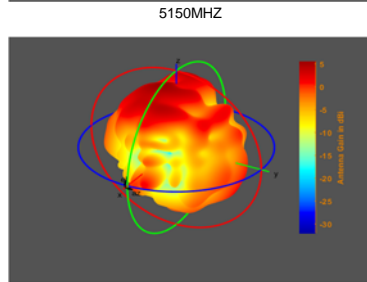
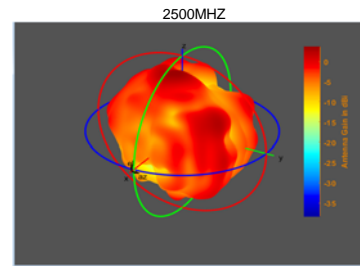
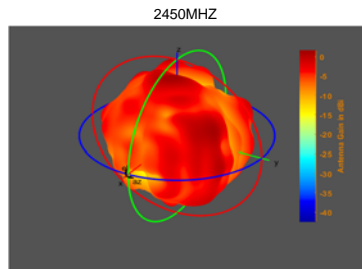
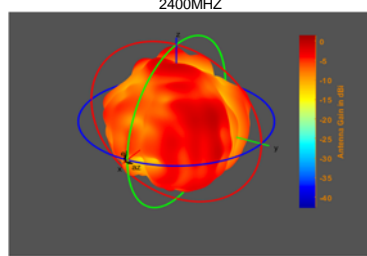
Antenna Efficiency Specification for LG Platforms

WLAN	Freq(MHz)	Efficiency Spec(%)	Efficiency Spec(DB)	Peak Gain Spec(Dbi)	2020/11/23 WLAN						PASS FAIL	VSWR
					Antenna Efficiency(%)		Antenna Peak Gain(dBi)		Antenna Efficiency(DB)			
					Main	Aux	Main	Aux	Main	Aux		
802.11b	2400	40%	-4.0	2.0	41%	-3.3	1.7	56%	-2.6	1.9		
	2450	40%	-4.0	2.0	44%	-3.5	1.7	59%	-2.3	1.7		
	2500	40%	-4.0	2.0	52%	-2.9	1.5	58%	-2.4	1.8		
	5150	30%	-5.2	3.0	41%	-3.8	2.2	31%	-5.1	1.1		
	5250	30%	-5.2	3.0	40%	-3.1	2.5	35%	-4.4	1.6		
802.11a	5350	30%	-5.2	3.0	46%	-3.4	2.0	41%	-3.9	2.3		
	5470	30%	-5.2	3.0	38%	-4.2	1.3	44%	-3.5	2.6		
	5600	30%	-5.2	3.0	32%	-5.5	0.8	47%	-3.3	2.7		
	5725	30%	-5.2	3.0	30%	-5.2	1.0	35%	-4.1	2.7		
	5785	30%	-5.2	3.0	32%	-5.0	1.8	35%	-4.6	2.2		
	5800	30%	-5.2	3.0	35%	-4.6	2.2	35%	-4.6	2.1		
	5860	30%	-5.2	3.0	38%	-4.1	3.1	34%	-4.7	0.8		
WLANE	5925	30%	-5.2	3.0	45%	-3.4	1.8	31%	-5.1	1.3		
	6025	30%	-5.2	3.0	21%	-6.7	2.4	28%	-5.5	1.7		
	6125	30%	-5.2	3.0	32%	-4.9	2.6	35%	-4.5	1.7		
	6225	30%	-5.2	3.0	27%	-5.6	2.5	30%	-5.2	1.6		
	6325	30%	-5.2	3.0	28%	-5.8	1.4	31%	-5.1	1.1		
	6425	30%	-5.2	3.0	27%	-5.7	2.3	30%	-5.2	1.7		
	6525	30%	-5.2	3.0	25%	-5.6	2.4	31%	-5.1	1.5		
	6625	30%	-5.2	3.0	22%	-6.5	2.6	25%	-6.0	2.2		
	6725	30%	-5.2	3.0	35%	-4.6	2.8	25%	-5.1	2.2		
	6825	30%	-5.2	3.0	32%	-4.9	2.8	27%	-5.7	2.1		
	6925	30%	-5.2	3.0	23%	-6.4	2.5	28%	-5.6	2.2		
7025	30%	-5.2	3.0	29%	-5.4	2.1	34%	-4.7	2.4			
7125	30%	-5.2	3.0	21%	-6.8	2.4	31%	-5.1	2.2			





Radiation pattern(MAIN Antenna)



Radiation pattern(AUX Antenna)

