

# APPROVAL SHEET

Customer Name: **TPV**

Date: **2018/04/27**

Doc. Version: **1**

OEM P/N	<b>317GAAWA627WNC</b>
WNC P/N	<b>81.EK615.G69</b>
Description	<b>ALBERTVILLE, 32TV WIFI MAIN ANTENNA, EK6-TP1</b>
Version	<b>1A</b>

Provided By Wistron NeWeb Corp	Reviewed By Wistron NeWeb Corp	Approved By Customer
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## 1. Introduction

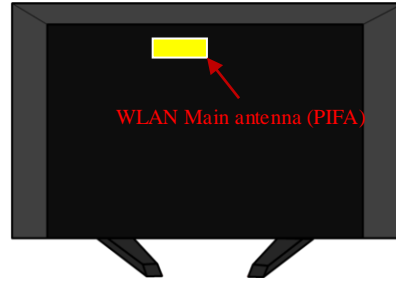
### Antenna for 802.11a+n+g system

#### WLAN MAIN antenna (PIFA)


1. Location: Top Middle of the TV Back Panel
2. Cable length : 160 mm, White (connector with  $\Phi$  1.37mm RF cable)



Front View



Back View

	WLAN MAIN Antenna
Position	Top Middle of the TV Back Panel
Antenna Type	PIFA
Cable	Cable color : White, 1.37 (dia) x 160mm , RF connector
Weight	2.45 g
Photos	

## 2. Revision History

Date	Version	Revision History
04/25/18	1	New Release

## 3. Product Specifications

### 3.1 Specifications of Antenna Design

#### 3.1.1 VSWR

WLAN	IEEE 802.11 g/n			IEEE 802.11 a/n		
	2400MHz	2450MHz	2483MHz	5150MHz	5470MHz	5850MHz
VSWR	<2			<2		

#### 3.1.2 Efficiency

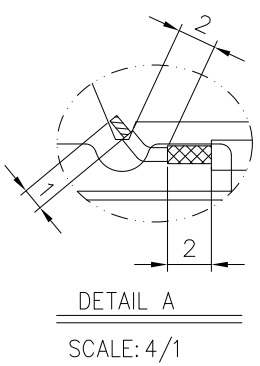
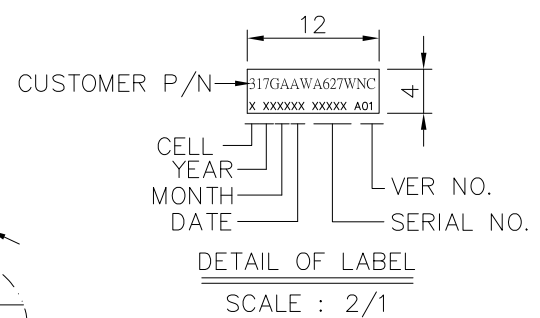
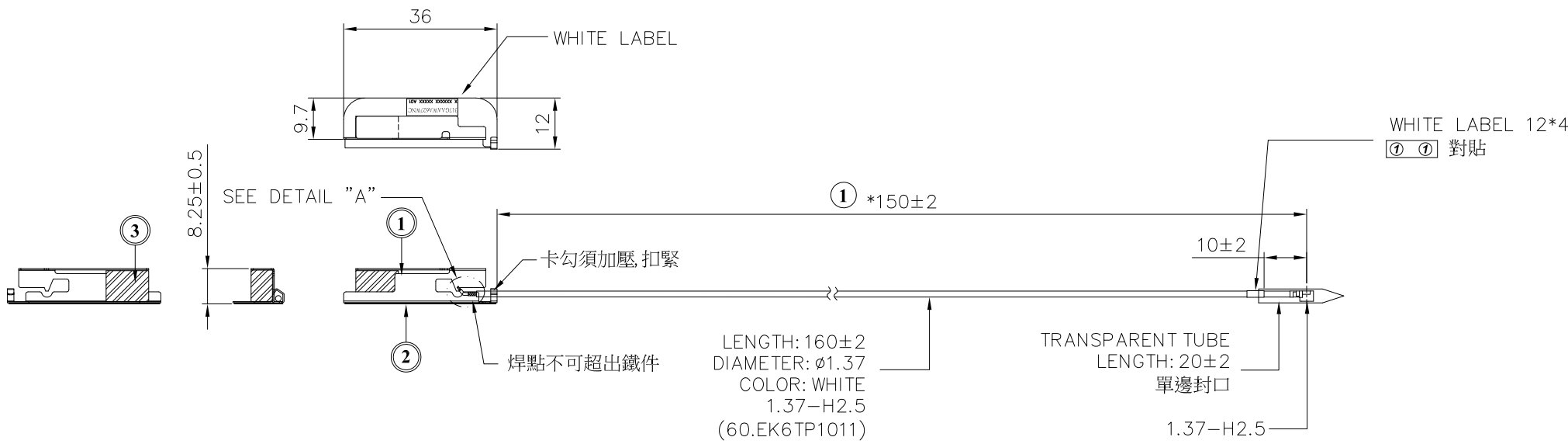
WLAN	IEEE 802.11 g/n			IEEE 802.11 a/n		
	2400MHz	2450MHz	2483MHz	5150MHz	5470MHz	5850MHz
Efficiency	>40%			>50%		

### 3.2 Mechanical Specifications

See the attached drawing.

PART NUMBER BLOCK		CUSTOMER P/N BLOCK		CONFIRM ANTENNA SPEC.	
PART NUMBER	REV	PART NUMBER	REV	APPROVED	DATE
57.EK615.069	1	317GAAWA627WNC	A01	YANG SHUN LIU	06/20/18

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	RELEASE TO FILE	06/20/18	VINCENT CC LIN



LENGTH: 160±2  
DIAMETER: 1.37  
COLOR: WHITE  
1.37-H2.5  
(60.EK6TP1011)

TRANSPARENT TUBE  
LENGTH: 20±2  
單邊封口  
1.37-H2.5

"\*"ARE THE CRITICAL DIMENSIONS

3	3T.EK6TP.002	BUFFER, BT-50, EVA60, EK6-TP1	EA	1
2	3T.EK6TP.004	PLATE, AL FOIL, BT-50, EK6-TP1	EA	1
1	3S.EK6TP.00E	ANTENNA, SUS-1, BT-32, EK6-TP1	EA	1
ITEM	PART NO.	DESCRIPTION	UNIT	QTY

ONLY ME PARTS REFERENCE

81.EK615.G69	EK6-TP1
NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm AND TOLERANCES ARE:			
INTEGER DIMENSIONS	±0.2	ANGULAR DIMENSIONS	±1°
1 PLACE DECIMAL	±0.1	HOLES UNDER Ø5.00	±0.05
2 PLACE DECIMALS	±0.05		
MATERIAL: NA			
FINISH: NA			
THIRD ANGLE PROJECTION	DRAWN	STACY CHANG	06/20/18
	ENGR	YANG SHUN LIU	06/20/18
	APVD	VINCENT CC LIN	06/20/18

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DWG TITLE  
ALBERTVILLE, 32TV WIFI MAIN ANTENNA, EK6-TP1

SIZE DWG NO. 57.EK615.069 REV 1

SCALE 1/1 SHEET 1 OF 1

### 3.3 Antenna Material List

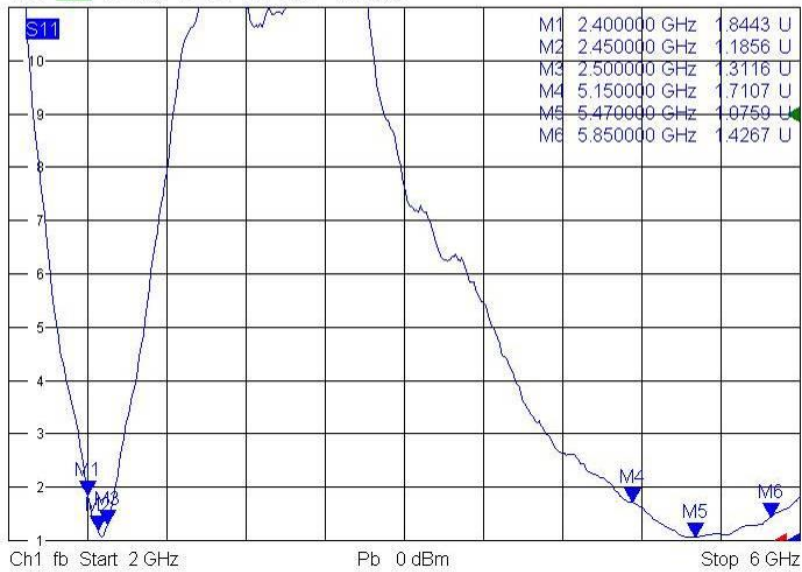
Items	Description
Antenna	3S.EK6TP.007WS
Cable	Φ1.37 Cable(White)
Connector	IPEX
Adhesive	TT219
BUFFER	EVA60

## 4. Antenna Performance

### 4.1 VSWR

#### Main

Trc1 S11 SWR 1 U / Ref 1 U Cal int Offs 1 (Max)  
 Trc2 S22 SWR 1 U / Ref 1 U Invisible  
 Trc3 S21 dB Mag 10 dB / Ref 0 dB Invisible



3/7/2018, 9:21 PM

## 4.2 Efficiency data

### Main

Freq(GHz)	Efficiency(%)	Efficiency(dB)
2400	56.59	-2.47
2450	62.4	-2.05
2500	56.82	-2.45
5150	68.32	-1.65
5250	71.75	-1.44
5350	73.31	-1.35
5470	71.15	-1.48
5600	69.88	-1.56
5725	73.32	-1.35
5785	67.93	-1.68
5850	68.86	-1.62

## 4.3 Peak Gain

Frequency (MHz)	Gain (dBi)
2400	2.91
2450	2.70
2500	3.71
5150	4.82
5250	5.21
5350	5.13
5470	5.07
5600	5.13
5725	4.53
5785	3.72
5850	3.50

