

APPROVAL SHEET

Customer Name: **TPV**

Date: **2018/04/27**

Doc. Version: **1**

OEM P/N	317GAAWA617WNC
WNC P/N	81.EK615.G57
Description	MINNETONKA, 43TV WIFI AUX ANTENNA, EK6-TP1
Version	1A

Provided By Wistron NeWeb Corp	Reviewed By Wistron NeWeb Corp	Approved By Customer
Yang Shun Liu	Feng Hsieh	

Wistron NeWeb Corporation
No. 20 , Science Road 2,
Hsinchu Science Park
Hsinchu 300, Taiwan, R.O.C.
TEL: +886-3-666-7799
FAX: +886-3-666-7322
<http://www.wneweb.com>

啟碁科技股份有限公司
新竹市 300 科學園區園區二路 20 號
電話：(03) 666-7799
傳真：(03) 666-7322



Index

- 1. Introduction**
- 2. Revision History**
- 3. Product Specifications**
- 4. Antenna Performance**

1. Introduction

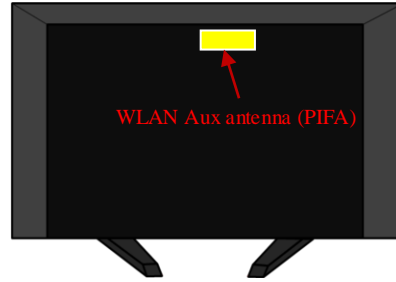
Antenna for 802.11a+n+g system

WLAN AUX antenna (PIFA)

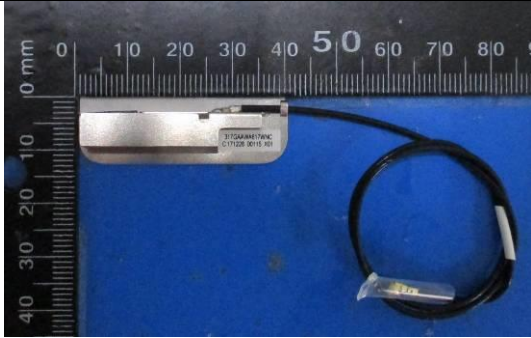
1. Location: Top Middle of the TV Back Panel
2. Cable length : 299 mm, Black (connector with Φ 1.37mm RF cable)



Front View



Back View

WLAN AUX Antenna	
Position	Top Middle of the TV Back Panel
Antenna Type	PIFA
Cable	Cable color : Black, 1.37 (dia) x 299mm , RF connector
Weight	3.17 g
Photos	

2. Revision History

Date	Version	Revision History
04/27/18	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

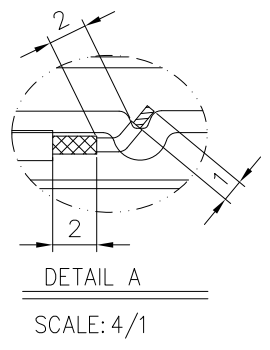
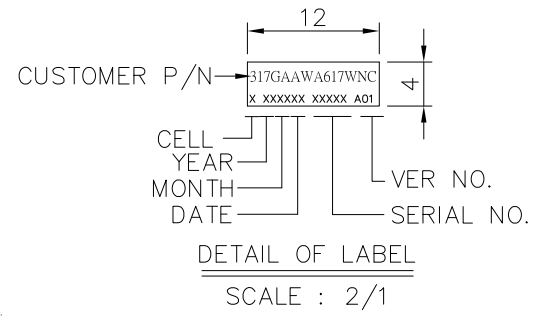
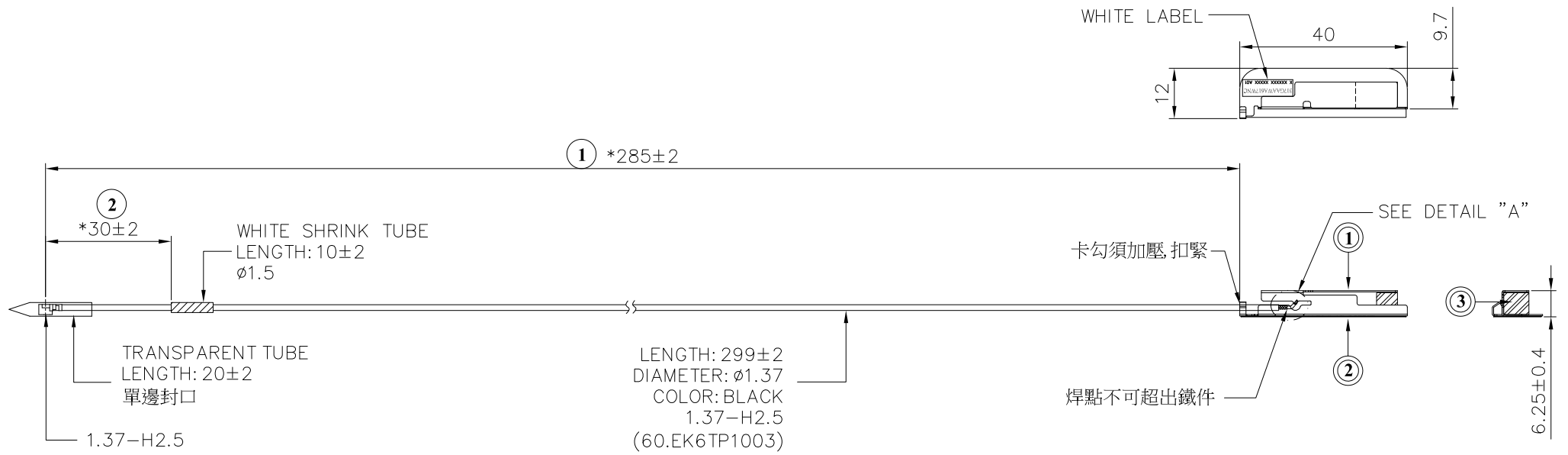
WLAN	IEEE 802.11 g/n			IEEE 802.11 a/n		
	2400MHz	2450MHz	2483MHz	5150MHz	5470MHz	5850MHz
Efficiency	>40%			>50%		

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.EK615.057	1	317GAAWA617WNC	A01	YANG SHUN LIU	05/09/18

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	1	RELEASE TO FILE	05/09/18	VINCENT CC LIN



"*"ARE THE CRITICAL DIMENSIONS

3	3T.EK6TP.001	BUFFER, BT-43, EVA60, EK6-TP1	EA	1
2	3T.EK6TP.003	PLATE, AL FOIL, BT-43, EK6-TP1	EA	1
1	3S.EK6TP.009	ANTENNA, SUS-1, BT-43, EK6-TP1	EA	1
ITEM	PART NO.	DESCRIPTION	UNIT	QTY

ONLY ME PARTS REFERENCE

81.EK615.G57	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	05/09/18
	ENGR	YANG SHUN LIU	05/09/18
	APVD	VINCENT CC LIN	05/09/18

WNC 啟碁科技股份有限公司
 Wistron NeWeb Corp.
 20 Park Avenue II, Hsinchu Science Park,
 Hsinchu 308, Taiwan, R.O.C.
 Tel: 886-3-6667799 Fax: 886-3-5788726

DWG TITLE
 MINNETONKA, 43TV WIFI AUX ANTENNA, EK6-TP1

SIZE DWG NO. 57.EK615.057 REV 1

SCALE 1/1 SHEET 1 OF 1

3.3 Antenna Material List

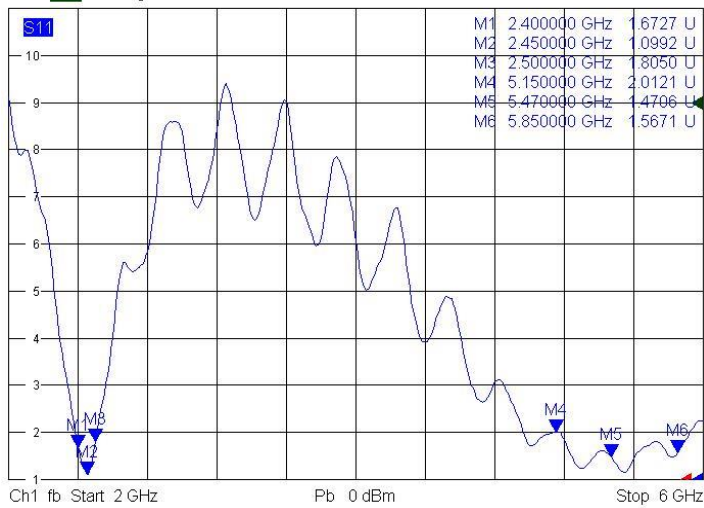
Items	Description
Antenna	3S.EK6TP.004ST
Cable	Φ1.37 Cable(Black)
Connector	IPEX
Adhesive	王佳 TT219
BUFFER	EVA60

4. Antenna Performance

4.1 VSWR

Aux

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



4.2 Efficiency data

Aux

Freq(GHz)	Efficiency(%)	Efficiency(dB)
2400	45	-3.47
2450	53.85	-2.69
2500	46.82	-3.3
5150	54.47	-2.64
5250	55.52	-2.56
5350	60.69	-2.17
5470	57.66	-2.39
5600	54.51	-2.63
5725	53.84	-2.69
5785	53.22	-2.74
5850	51.79	-2.86

4.3 Peak Gain

Frequency (MHz)	Gain (dBi)
2400	0.85
2450	1.73
2500	0.87
5150	2.79
5250	3.70
5350	3.88
5470	3.51
5600	2.93
5725	2.81
5785	3.22
5850	2.90

