

SPECIFICATION FOR APPROVAL

CUSTOMER: ELO

CUSTOMER P/N : E598782

MODEL NAME: Dipole-1 Ant.

AWAN P/N: AYLE0-100000



Customer Approval

R&D Manager

AWAN Approved

				
&D Manager / Dongyan.Jin	Mechanical Manager / Dongyan.Jin	Q&R Manager / Fish Tong	Project Engineer / Jake.Zhu	Product Manager/ Yan.sun



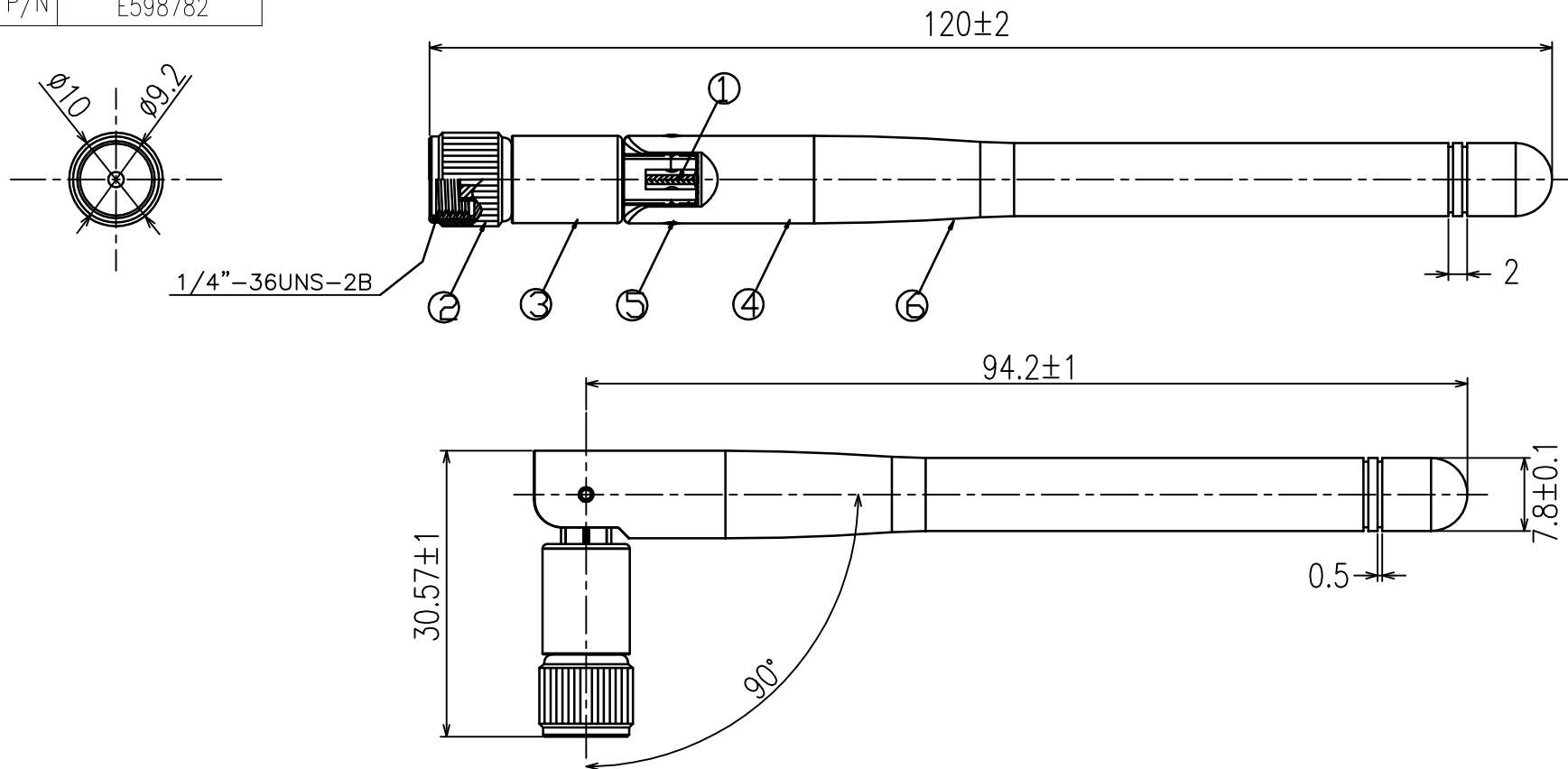
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Kun -Shan City, Jiang -Su Prov.,P.R.C.

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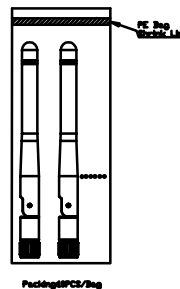
Http : //www.awan-ant.com


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AWAN P/N	AYLE0-100000							Rev.	EC#	Description	Drawn/Date	Checked/Date	Approved/Date		
Customer P/N	E598782							X1			hongsui 05/14/20'	Arthur 05/14/20'	Arthur 05/14/20'		
120+2															



SPECIFICATION

- Frequency Range::2.4~2.5GHz&5.15~5.85GHz
- Impedance:50 欧姆
- VSWR:≤2.0
- Polanization:Vertical
- Radlation:Omni
- Gain:2.4G@2.0dBi
5.5G@3.0dB



6	Antenna Cover L79.5mmX#9.35mm	1		TPEE Black																																																							
5	Rivet L3.8mmX#1.5mm	2		POM Black																																																							
4	Antenna Base L28.8X#9.35mm	1		PBT Black																																																							
3	Antenna Base L24.7X#9.35mm	1		PC Black																																																							
2	SMA PLUG REVERSE	1		Connector																																																							
1	RG-178 Cable	1		Cable																																																							
Item	Name	Q'ty	Part #	Material / Finish																																																							
<table border="1"> <tr> <td colspan="2">Tolerances Unless Otherwise Specified</td><td colspan="3">Drawn Date</td></tr> <tr> <td>General</td><td>X</td><td>±1.00</td><td>hongsui</td><td>05/14/20'</td></tr> <tr> <td></td><td>.X</td><td>±0.50</td><td></td><td></td></tr> <tr> <td></td><td>.XX</td><td>±0.20</td><td></td><td></td></tr> <tr> <td></td><td>.XXX</td><td>±0.05</td><td></td><td></td></tr> <tr> <td>Angles</td><td>X</td><td>±3.0'</td><td>hongsui</td><td>05/14/20'</td></tr> <tr> <td></td><td>.X</td><td>±2.0'</td><td></td><td></td></tr> <tr> <td></td><td>.XX</td><td>±1.0'</td><td></td><td></td></tr> <tr> <td>Scale</td><td>1</td><td>: 1</td><td>Checked Date</td><td>Arthur 05/14/20'</td></tr> <tr> <td>Sheet</td><td>1</td><td>of 1</td><td>Approved Date</td><td>Arthur 05/14/20'</td></tr> <tr> <td>Unit</td><td>mm</td><td></td><td>3D File</td><td>Customer Drawing</td></tr> </table>					Tolerances Unless Otherwise Specified		Drawn Date			General	X	±1.00	hongsui	05/14/20'		.X	±0.50				.XX	±0.20				.XXX	±0.05			Angles	X	±3.0'	hongsui	05/14/20'		.X	±2.0'				.XX	±1.0'			Scale	1	: 1	Checked Date	Arthur 05/14/20'	Sheet	1	of 1	Approved Date	Arthur 05/14/20'	Unit	mm		3D File	Customer Drawing
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HSF 相關均質拆分及測試點選擇參照
<HSF 均質物質拆分作業圖示表>

符合AWAN環境管理物質技術標準
All materials meet the AWAN's spec. Environment - related substances management technical standard.

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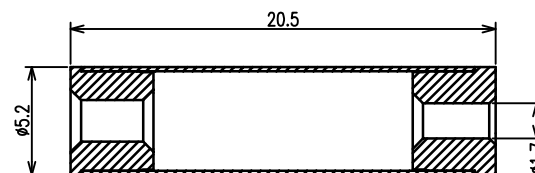
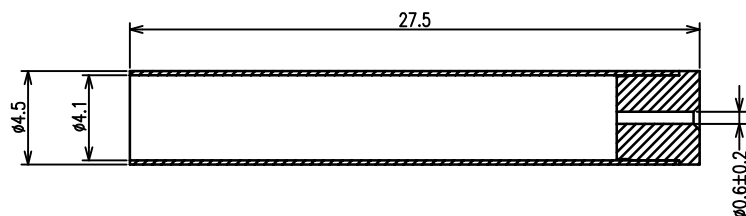
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Rev.	EC#	Description	Drawn/Date	Checked/Date	Approved/Date
X1			hongsui 05/14/20'	Arthur 05/14/20'	Arthur 05/14/20'



技术:

- 1) 材质: 黄铜
- 2) 塞子: 黄铜镀锡
- 3) “▲” 重要管控尺寸
- 4) 所有物料需符合ROHS要求

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HSF相關物質拆分及測試點選擇參照
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<div><div>Tolerances Unless Otherwise Specified</div><div>General</div><div>X ±1.00</div><div>.X ±0.50</div><div>.XX ±0.20</div><div>.XXX ±0.05</div><div>Angles</div><div>X ±3.0°</div><div>.X ±2.0°</div><div>.XX ±1.0°</div><div>Scale</div><div>1 : 1</div><div>Sheet</div><div>1 of 1</div><div>Unit</div><div>mm</div><div></div></div>	Drawn	Date	<div><div>ADVANCED WIRELESS & ANTENNA INC.</div></div> <div>Dipole-1 Ant.</div> <div>Series</div> <div>Size A3</div> <div>Rev. X3</div>
	Design	Date	
	Checked	Date	
	Approved	Date	
Customer Drawing			

符合AWAN環境管理物質技術標準

All materials meet the AWAN's spec. Environment - related substances management technical standard.

ELO Dipole MATERIAL LIST for Plastic

PRODUCT NAME : ELO Dipole

No	ITEM	PART No	Material Name	TYPE No	MATERIAL DESCRIPTION	QUANTITY	Remark
1	CABLE	XC17808150	CABLE	CABLE	RG178, FEP 7x0.102, OD=1.8mm, COLOR: BROWN, COAXIAL, PTFE	81.5mm	
2	CONNECTOR	CN18FPS070	SMA	SMA	SMA PLUG-, SMA PLUG 180 Brass L=16.15mm, WHITE, TEFLON, BLACK, 1/4-36NUNS-2B, FOR RG-178	1 PCS	
3	UP BASE	SJ12880B02	PC+PBT	PC+PBT	9.35x28.8mm, PC+PBT, COLOR BLACK	1 PCS	
4	MIDDLE BASE	SJ22000B02	PC+PBT	PC+PBT	9.35X19.7mm, PC+PBT, COLOR BLACK	1 PCS	
5	BASE	SJ30788B01	TPEE	TPEE	9.35X78.8mm, PC+PBT, COLOR BLACK	1PCS	
6	GND copper	TG20500052017	GND copper	BRASS	L20.5*5.2mm brass pom bottom stopper	1 PCS	
7	copper	TG00274500	copper	BRASS	L27.5*4.5mm brass pom bottom stopper	1 PCS	
8	HEAT-SHINKABLE TUBING	FC00255000	EAT-SHINKABLE TUBIN	pvc	GROUND TUBE, 4.5mmxL22.5mm, Brass, SN+PLASTIC	1 PCS	
9	PE BAG	FC14001050	PE BAG	pa	PE bag L140*W105*T0.06mm hyaline	0.1 PCS	Not plastic material
10	CARTON	2403013	CARTON	CARTON	CARTON:L400*W225*H200mm	0.000833333	

PRODUCT SPECIFICATION

TITLE

2.4GHz/5GHz Dipole Antenna

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PRODUCT SPECIFICATION

2.4GHz/5GHz Dipole Antenna

1.0 SCOPE

This Product Specification covers the mechanical, electrical and environmental performances requirements and test methods for 2.4GHz/5GHz Dipole Antenna.

2.0 PRODUCTDESCRIPTION

2.1 PRODUCTNAME

Product name: 2.4GHz/5GHz Dipole Antenna

2.2 Design and Construction

Antenna shall be of the design, construction and physical dimensions specified on the applicable sales drawing.

2.3 Materials

- a) Flex: Refer to respective Acon sales or engineering drawings
- b) Plating: Refer to respective Acon sales or engineering drawings
- c) Cable Line: Refer to respective Acon sales or engineering drawings
- d) Connector: SMA plug connector. Please contact sales if you need to use other connector.

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See drawings and other sections of this specification for the relevant reference documents. In cases where the specification differs from the drawings, the drawings take precedence.

4.0 RATINGS

4.1 RFPOWER

2 WATTS

4.2 TEMPERATU

Operating: - 20°C to + 80°C
Storage : 0°C to +60°C

4.3 HUMIDITY

Operating: : +5~95% RH
Storage +20~90%RH

PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS FOR CABLE LENGTH 100mm (AEM6P-100000A)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5.1.1	Frequency Range	KEYSIGHT E5071C ENA	2.4GHz~2.5GHz&5.15GHz-5.85GHz
5.1.2	Return Loss	Antenna loads on PC/ABS housing with 100mm; 1.13mm diameter micro coax cable. Measured by E5071C ENA	< -10 dB
5.1.3	Peak Gain	Measure antenna on recommended PC/PBT housing through OTA chamber	2.0+/-0.5 dBi
5.1.4	Total Efficiency	Measure antenna on recommended PC/PBT housing through OTA chamber	>75%
5.1.5	Polarization	Measure antenna through the OTA chamber	Liner
5.1.6	Input Impedance	Measure antenna on recommended PCB Through E5071C ENA	50Ohms

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5.2.1	Pull test	---	----

5.3 RELIABILITY REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5.3.1	Cross section	Cross section on pad soldering area. Check under microscope	No soldering problem

PRODUCT SPECIFICATION

5.4 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5.4.1	Temperature /Humidity cycling	Test condition: Constant temperature and humidity: temperature: 65 degrees humidity: 90%RH time: 72H	1) Parts should meet RF spec before and after test. 2) No cosmetic problem
5.4.2	Temperature Shock	Test condition: Hot and cold impact: humidity: -40 degrees ~85 degrees cycle: 24 times each time 1H	1) Parts should meet RF spec before and after test. 2) No cosmetic problem
5.4.3	High Temperature	Test condition: High temperature: temperature: 85+/-2 degrees time: 24H	1) Parts should meet RF spec before and after test. 2) No cosmetic problem
5.4.4	Salt mist test	Salt spray: temperature: 35 degrees concentration: 5%+/-1% time: 24H	1) Parts should meet RF spec before and after test. 2) No visible corrosion. Discoloration accept.

The meaning of text "No Cosmetic Problem" in the table above is:

- no soldering problem
- no adhesion problem of glue
- no peel off of plating

PRODUCT SPECIFICATION

6.0 TEST GROUPINGS

Test Item	Description	Group1	Group2	Group3	Group4	Group5	Group6
5.2.1	Pull test	X					
5.3.1	Cross section		X				
5.4.1	Temperature /Humidity cycling			X			
5.4.2	Temperature Shock				X		
5.4.3	High Temperature					X	
5.4.4	Salt mist test						X
	Sample Quantity	5	5	5	5	5	5

7.0 PACKAGING

Refer to the Acon related packaging drawings.

8.0 CODING PRINCIPLE

P/N	A E M 6 P - 1 0 0 0 0 X X											
Code	1	2	3	4	5	6	7	8	9	10	11	12

Code 1	Code 2	Code 3	Code 4	Code 5	Code 6	Code 7~11	Code 12
Product	Category	Antenna material	Cable	Connector	Cable number	Water code/ Frequency	Length
A:Antenna	E: Other	M: Metal	6:OD1.8mm	P: RG-178	1: 1PCS	00000: Normal material/2.4 GHz&5GHz 00002: UV material/2.4 GHz&5GHz	A: 100mm B: 200mm C:300mm D:.....