

# Antenna

*The Most Appropriate Antenna for Your Design!*

Customer : YAMAHA

Specification for Approval  
Dipole antenna and RF Cable

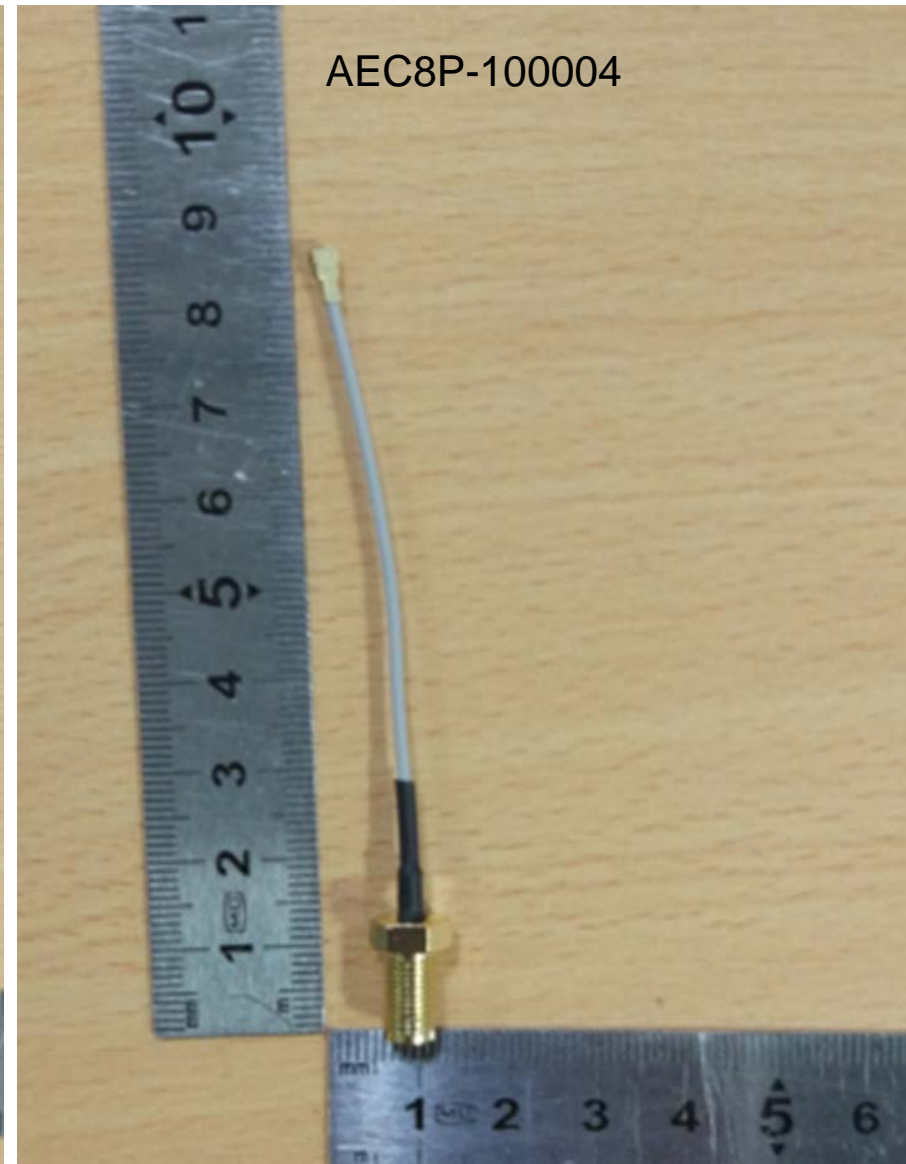
**ADVANCED-CONNECTEK INC.**  
**Wireless Communications BU.**  
**2017/6/22**



# Content

1. Antenna and Cable Description
2. Technical Specifications
3. Assembly Drawing
4. Performance Data

# 1. Antenna and Cable Description



## 2. Technical Specifications

Antenna

<b>Application Band</b>	<b>2400MHz~2500MHz</b>
	<b>5150MHz~5850MHz</b>
<b>Operating temperature range</b>	<b>-20~+80°C</b>
<b>S.W.R.</b>	<b>&lt;2.0</b>
<b>Antenna Peak Gain without RF Cable</b>	<b>2.4Ghz band 3.24 dBi Max</b>
	<b>5.0Ghz band 4.54 dBi Max</b>
<b>Efficiency</b>	<b>&gt;50%</b>
<b>Impedance</b>	<b>50 Ohm</b>
<b>Polarization / Azimuth</b>	<b>Linear / Omni-directional</b>
<b>Coaxial Cable</b>	<b>50 Ohm / O.D 1.78mm</b>

## 2. Technical Specifications

RF Cable

<b>Frequency</b>	<b>1~6GHz</b>
<b>Operating temperature range</b>	<b>-20~+80°C</b>
<b>Insertionloss (500mm)</b>	<b>2.4GHz~2.5GHz 1.34dB Min</b>
	<b>5.15~5.85GHz 1.93dB Min</b>
<b>Coaxial Connector</b>	<b>50 Ohm RPSMA-BJ-1.37AS(Au)</b>
	<b>I-PEX MHF1.37</b>

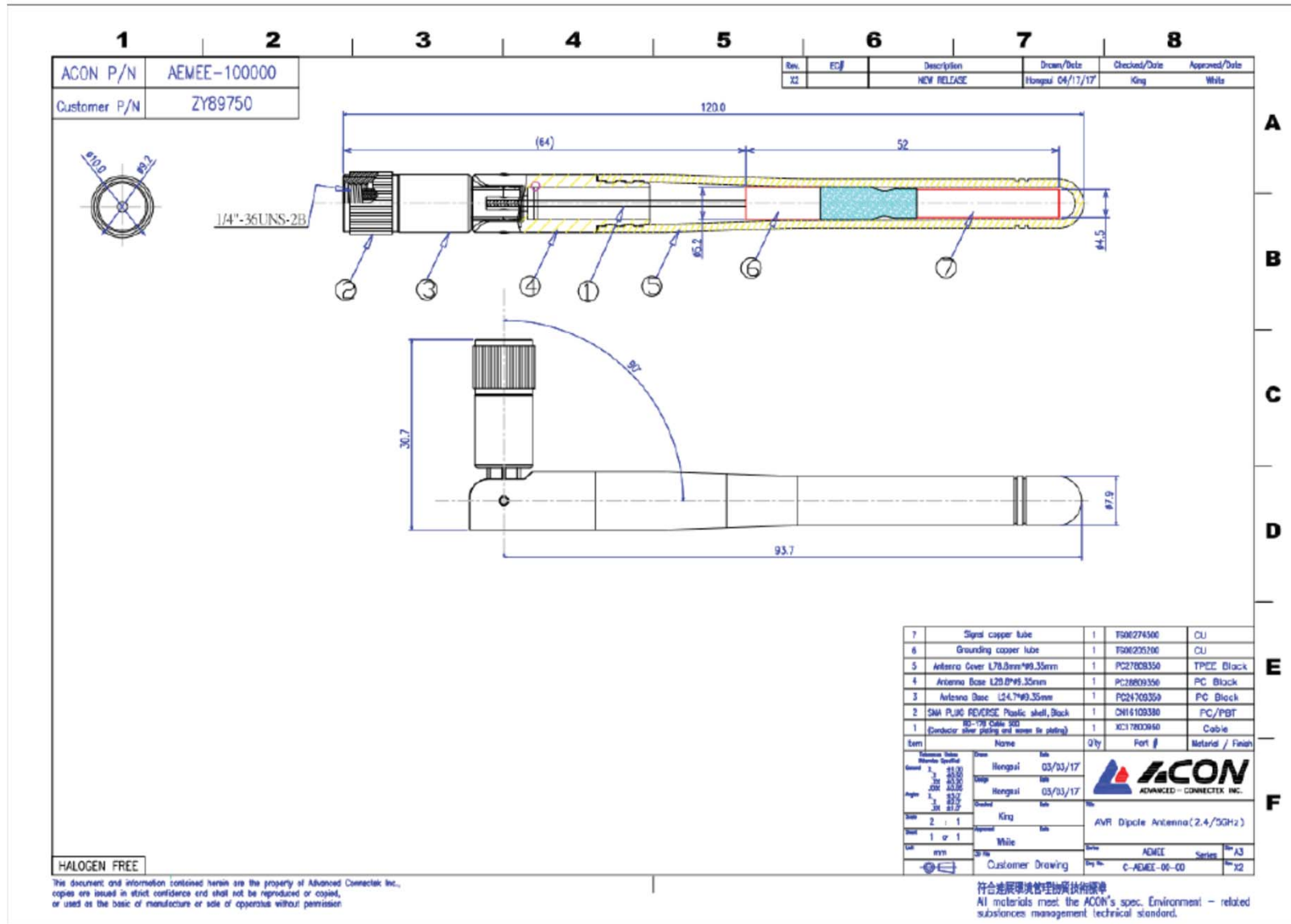
## 2. Technical Specifications

Peak GAIN Specification (Cable Color Gray)	2.4GHz Band GAIN(dBi) MAX	5GHz Band GAIN(dBi) MAX
Antenna without RF CABLE AEMEE-10000	3.24	4.54
Antenna with 30mm RF CABLE AEMEE-10000+AEC8P-100000	3.16	4.42
Antenna with 50mm RF CABLE AEMEE-10000+AEC8P-100002	3.11	4.35
Antenna with 70mm RF CABLE AEMEE-10000+AEC8P-100004	3.05	4.27
Antenna with 90mm RF CABLE AEMEE-10000+AEC8P-100006	3.00	4.19
Antenna with 120mm RF CABLE AEMEE-10000+AEC8P-100008	2.92	4.08
Antenna with 160mm RF CABLE AEMEE-10000+AEC8P-100010	2.81	3.92
Antenna with 200mm RF CABLE AEMEE-10000+AEC8P-100012	2.70	3.77
Antenna with 240mm RF CABLE AEMEE-10000+AEC8P-100014	2.60	3.61
Antenna with 280mm RF CABLE AEMEE-10000+AEC8P-100016	2.49	3.46
Antenna with 320mm RF CABLE AEMEE-10000+AEC8P-100018	2.38	3.30
Antenna with 360mm RF CABLE AEMEE-10000+AEC8P-100020	2.28	3.15
Antenna with 400mm RF CABLE AEMEE-10000+AEC8P-100022	2.17	3.00
Antenna with 450mm RF CABLE AEMEE-10000+AEC8P-100024	2.03	2.80
Antenna with 500mm RF CABLE AEMEE-10000+AEC8P-100026	1.90	2.61

## 2. Technical Specifications

Peak GAIN Specification (Cable Color Black)	2.4GHz Band GAIN(dBi) MAX	5GHz Band GAIN(dBi) MAX
Antenna without RF CABLE AEMEE-10000	3.24	4.54
Antenna with 30mm RF CABLE AEMEE-10000+AEC8P-100001	3.16	4.42
Antenna with 50mm RF CABLE AEMEE-10000+AEC8P-100003	3.11	4.35
Antenna with 70mm RF CABLE AEMEE-10000+AEC8P-100005	3.05	4.27
Antenna with 90mm RF CABLE AEMEE-10000+AEC8P-100007	3.00	4.19
Antenna with 120mm RF CABLE AEMEE-10000+AEC8P-100009	2.92	4.08
Antenna with 160mm RF CABLE AEMEE-10000+AEC8P-100011	2.81	3.92
Antenna with 200mm RF CABLE AEMEE-10000+AEC8P-100013	2.70	3.77
Antenna with 240mm RF CABLE AEMEE-10000+AEC8P-100015	2.60	3.61
Antenna with 280mm RF CABLE AEMEE-10000+AEC8P-100017	2.49	3.46
Antenna with 320mm RF CABLE AEMEE-10000+AEC8P-100019	2.38	3.30
Antenna with 360mm RF CABLE AEMEE-10000+AEC8P-100021	2.28	3.15
Antenna with 400mm RF CABLE AEMEE-10000+AEC8P-100023	2.17	3.00
Antenna with 450mm RF CABLE AEMEE-10000+AEC8P-100025	2.03	2.80
Antenna with 500mm RF CABLE AEMEE-10000+AEC8P-100027	1.90	2.61

# 3.Assembly Drawing





# 3.Assembly Drawing

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
ACON P/N AEC8P-100000(代)				Rev. E01		Description	
Customer P/N ZY90020(代)				REV RELEASE		Drawn/Date	
						Checked/Date	
						Approved/Date	
						Arthur	

Customer P/N	P/N	DIM.A
ZY90160	AEC8P-100001	30.0
ZY90170	AEC8P-100003	50.0
ZY90180	AEC8P-100005	70.0
ZY90190	AEC8P-100007	90.0
ZY90200	AEC8P-100009	120.0
ZY90210	AEC8P-100011	160.0
ZY90220	AEC8P-100013	200.0
ZY90230	AEC8P-100015	240.0
ZY90240	AEC8P-100017	280.0
ZY90250	AEC8P-100019	320.0
ZY90260	AEC8P-100021	360.0
ZY90270	AEC8P-100023	400.0
ZY90280	AEC8P-100025	450.0
ZY90290	AEC8P-100027	500.0

6	WASHER	1	TX-SMA-37-15	CU
5	NUT	1	TX-SMA-37-14	CU
4	Heat shrink Tube(Black)	1	Black Tube 2.0	Tube
3	Dustproof Cover	1	Transparent Tube 2.5	Tube
2	#1.37 Black Cable+Flag	1	TX-CB-88-95	Cable
1	SMA R/P JACK	1	TX-SMA-37-08	CU

Item	Name	Qty	Part #	Material / Finish
1	WASHER	1	TX-SMA-37-15	CU
2	NUT	1	TX-SMA-37-14	CU
3	Heat shrink Tube(Black)	1	Black Tube 2.0	Tube
4	Dustproof Cover	1	Transparent Tube 2.5	Tube
5	#1.37 Black Cable+Flag	1	TX-CB-88-95	Cable
6	SMA R/P JACK	1	TX-SMA-37-08	CU

Dimension of lock SMA hole

HALOGEN FREE	
This document and information contained herein are the property of Advanced Connectek Inc. copies are issued in strict confidence and shall not be reproduced or copied, or used on the basis of manufacture or sale of apparatus without permission.	

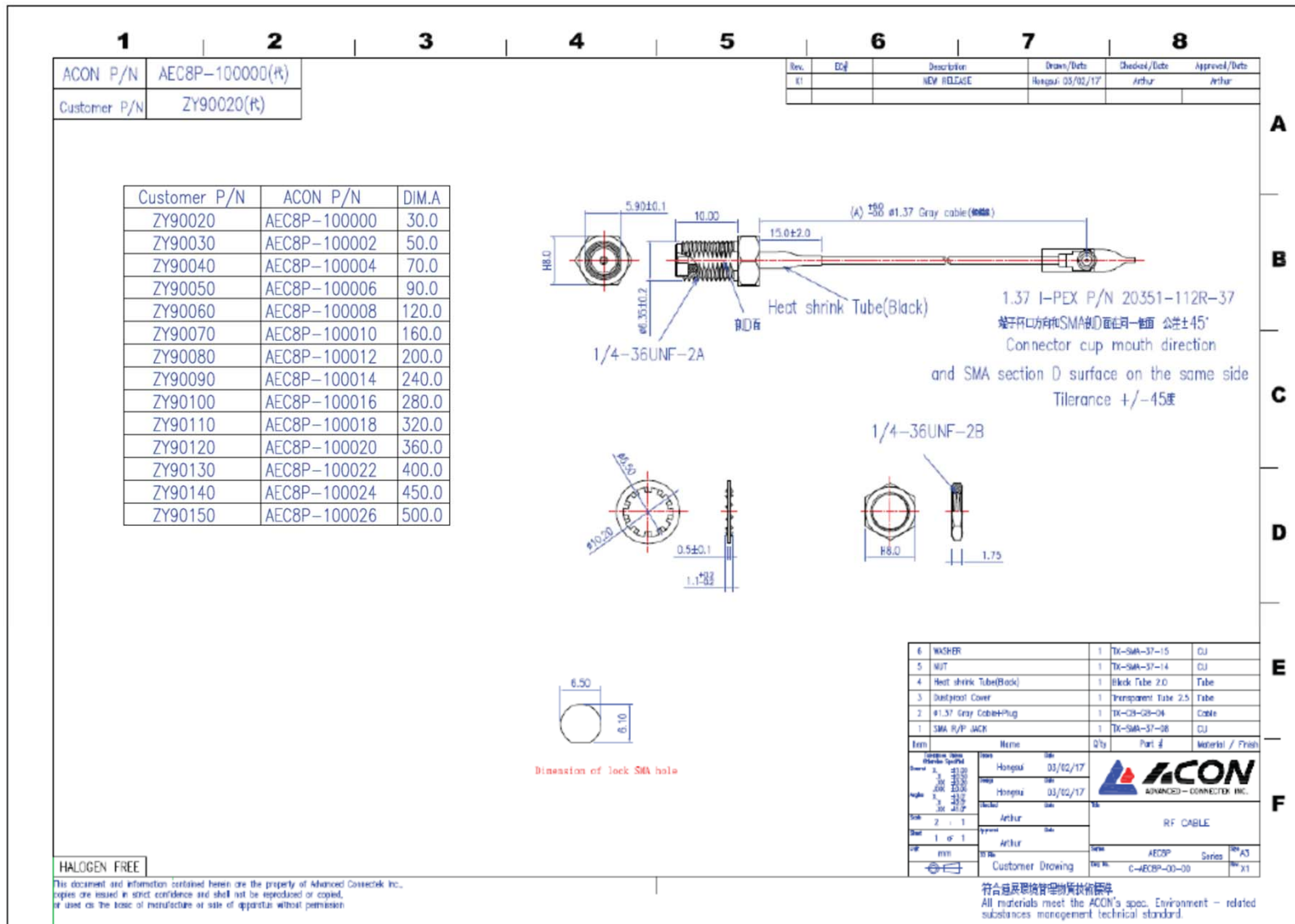
  

Drawn	Hongzhi	01/02/17	<b>ACON</b> ADVANCED-CONNECTEK INC.
Checked	Arthur	01/02/17	
Appr	Arthur		RF CABLE
Scale	1 of 1		
Drawn	min		
Customer Drawing			

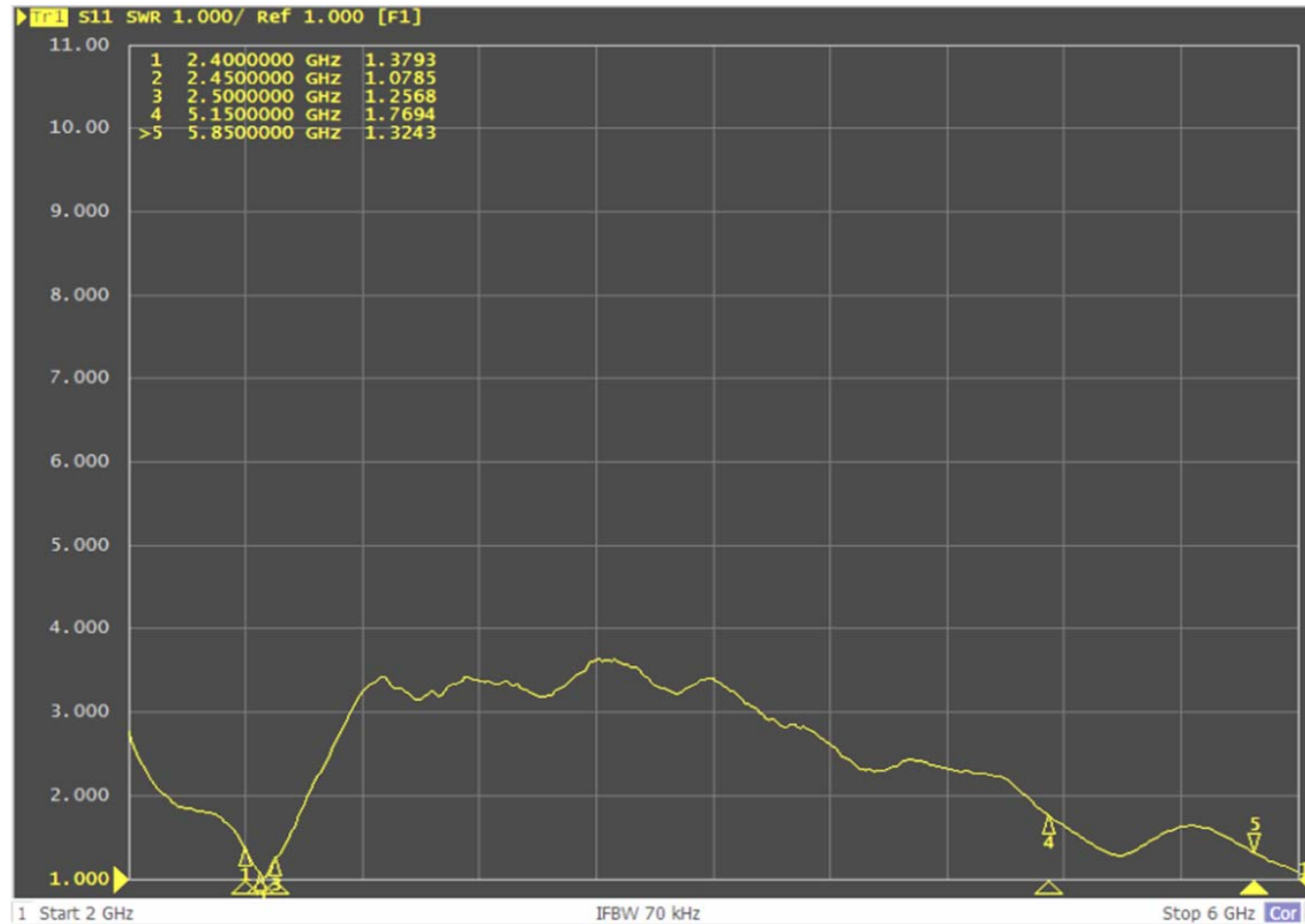
  

符合RoHS环保标准  
All materials meet the ACON's spec. Environment - related substances management technical standard.

# 3.Assembly Drawing

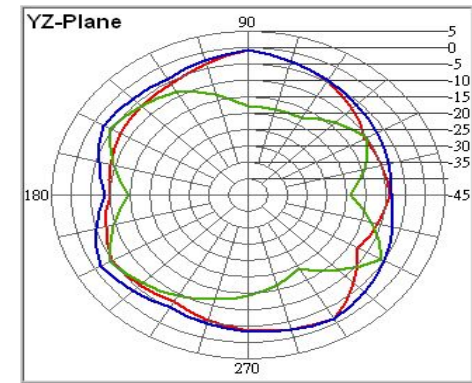
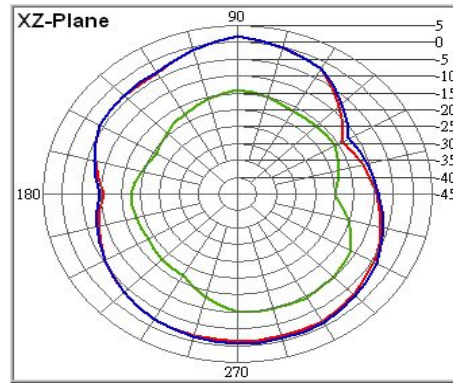
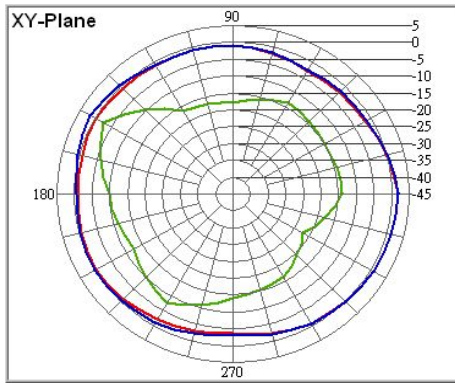


## 4. Performance Data : S.W.R ( Without RF Cable )



# 4. Performance Data : Pattern ( Without RF Cable )

2450MHz



5350MHz

