Bondale Electronics Ltd.
博 钜 电 子 有 限 公 司
Unit11， 12/F, BLK B Veristrong ind. Ctr, 34-36 Au Pui Wan Street, Fo Tan Shatin, N.T. HK
Tel: 852 2345 0215 Fax: 852 27978191
Email:antenna@bondale.com
Website: www.bondale.com

COVER OF SPECIFICATION
规 格 书

No.: _____

CUSTOMER'S NAME :
客户名称 高达

CUSTOMER'S MODEL NO . :
客户型号

CUSTOMER'S PART NO. :
客户料号 AF591

PRODUCT NAME :
产品名称 Rubber Antenna

OUR MODEL NO. :
本公司型號 G-RA0K14091074-SZ586

This Specification is Composed of Under Listed (Samples be attached)
本规格书由以下内容组成(样品另附)：

NO.	Items(项目)	Pages(页码)
1	**Certificate Of Conformance ROHS(环保证明书)**	1
2	Product Drawing (产品图)	1
3	Specification of Product (规格书内容)	1
4	Capability Test Report (性能测试报告)	2
	Total pages(包含本页)	共 6 页

Please fax back this brefile page with authorized signature and company chop as customer's approval on samples,Thanks! (如果此产品得到您的确认,请传回本页给我们.)

Customer Sign 客户签名		Customer Company Chop 客户公章	

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TO: 高达 DATE: 2021-03-05
File NO.:

CERTIFICATE OF CONFORMANCE ROHS

Customer Part No. : AF591
Bondale Part No. : G-RA0K14091074-SZ586
Description : Rubber Antenna

We, Bondale Electronics ltd. assured that the above mentioned item: G-RA0K14091074-SZ586 is fully comply with the EU directive 2011/65/EU, (EU)2015/863 and packaging directive 94/62/EC and that its content of hazardous substances is below the values as listed:

ROHS critical values:

*Cadmium(Cd)			under 100 ppm
*Lead (Pb)	Generally		under 1,000 ppm
	Be Exempted	*Products that contain Copper alloy components*	under 40,000 ppm
		Product that contain Steel alloy components	under 3,500 ppm
		Product that contain aluminum alloy components	under 4,000 ppm
*Mercury (Hg)			under 1,000 ppm
*Hexavalent Chormium (Cr6+)			under 1,000 ppm
*PBBs			under 1,000 ppm
*PBDEs			under 1,000 ppm
*DEHP			under 1,000 ppm
*BBP			under 1,000 ppm
*DBP			under 1,000 ppm
*DIBP			under 1,000 ppm

Packaging directive 94/62/EC critical values:

*Packaging (Pb + Cd +Hg +Cr6+) under 100 ppm

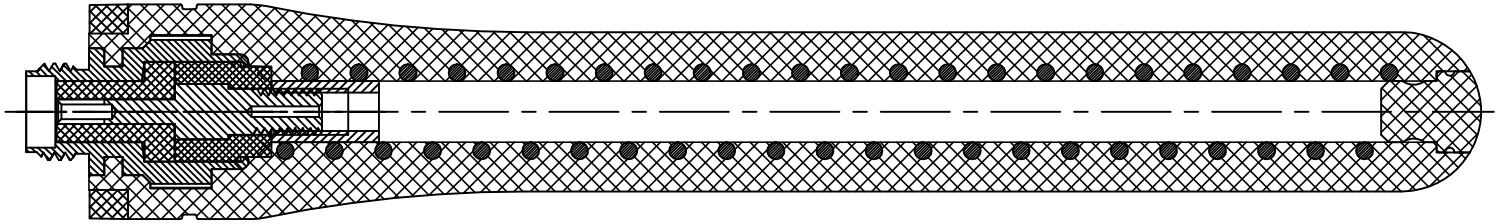
Expemted below:
If the above mentioned item is reprocessed by customer, we wouldn't promise and assure the content of hazardous substances of the product item.

On behalf of
Bondale Electronics Ltd.
ROHS green chop and GPMS spokesman sign(Rohs綠色印章 + GPMS負責人簽名):
Yours sincerely,

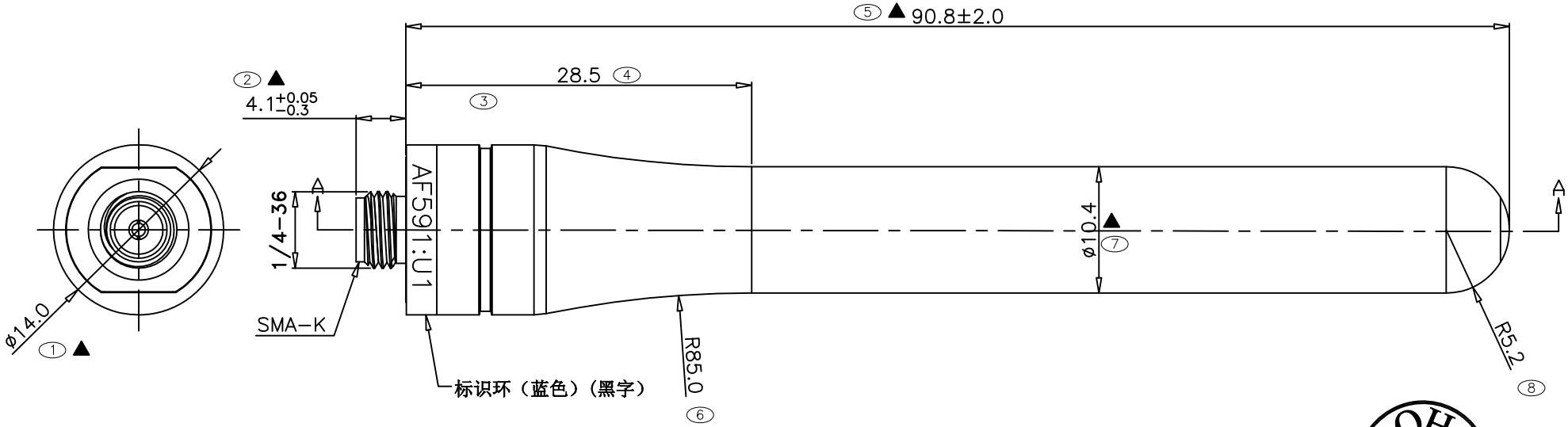
---GREEN PRODUCT MANAGEMENT SYSTEM (GPMS)---
---綠色產品管理系統---

REV.	ISSUE FOR	OLD DRAWING NO.	APPROVED

80<L<=250	±0.50
25<L<=80	±0.40
8<L<=25	±0.30
L<=8	±0.20
線性尺寸L	未注尺寸偏差
未注明公差	



A-A



注:
1. 膠管材料TPU, 黑色.
2. 天線工作頻率為:400~470MHz.
3. ▲ 為重點管控尺寸.
4. (**) 為做FAI尺寸.
5. 客户型号：AF591

TITLE	Rubber Antenna	版次	SCALE	2 : 1	DRAWN	陈水发	17/11-20
PART NAME	G-RA0K14091074-SZ586	A	MATERIAL		INSPECTED		
BONDALE ELECTRONICS LTD.			HANDLING		APPROVED		
			PROJECTION (視角)		SHEET		

RUBBER ANTENNA SPECIFICATION

Customer : 高达
Specification No.:
Model No.: G-RA0K14091074-SZ586

1, Application

The antenna specified in this specification is applicable for the radio-communication

2, Dimensions

As per Drawing No. G-RA0K14091074-SZ586 attached.

3, Materials

As specified in drawing No. G-RA0K14091074-SZ586

4, Electrical Characteristics

i) Resonate Frequency : 400~470MHz.
ii) Impedance : 50 ohm Nominal
iii) Radiation Pattern : Omni Directional
iv) Polarization : Vertical
v) Standing Wave Ratio (S.W.R): 2.0 or less at Resonate point
Less than 9.0 in frequency range
vi) Insulation resistance : 500 M ohm at DC 500V

5,Mechanical & Environmental Conditions

5.1 Antenna sleeve and antenna head pull and thrust 7.5kg durable 1 min
Antenna sleeve and connector torque and thrust are 10KGf. Cm for 1 min

5.2 Swing Test : Connect the antenna to the radio, hold the top of the antenna, sway it 40000 times in the range of ±90º（sway machine angle）45 times each minute.
After testing, the antenna should no conspicuous deterioration on electrical function.

5.3 Drop test: the antenna is installed on the interphone, 1.5 m /24 times at normal temperature (6 surfaces + 4 angles at the bottom +2 times at the bottom is a cycle), and 1.5 m /12 times at -35℃ at low temperature

5.4 Connector Durability: Assembly and disassembly the antenna with the radio for 500 times testing, the screw of the connector and the pin of antenna should be no conspicuous dar

5.5 After the antenna was stored at 85℃ for 12H, the tension and torsion of the antenna were not deteriorated after 2H at normal temperature

5.6 The antenna should be stored at -40℃ for 12H, and then installed for ±90° swing immediately to check the appearance of the antenna without damage or deterioration

5.7 Constant humidity and heat: store the antenna at 60℃ temperature and 95±2% humidity f
After the test, check the appearance and test the tension and torsion without degradatior

5.8The antenna was placed at 80℃/2h~-40℃/2h for one cycle. After a total of three cycles, the antenna was taken out and restored at room temperature for 2 hours.The antenna was placed at 80℃/2h~-40℃/2h for one cycle. After a total of three cycles, The appearar was inspected and the tension and torsion force was measured without degradation

5.9 The antenna passed the salt spray test for 96 hours after being disassembled for 200 time

5.10 Antenna holding force: insert and pull the antenna core (antenna central contact) for 3 tir with a standard of 0.95mm, and then test the holding force with a standard pin of 0.90mr
The required holding force is: >;0.27 N

5.11 Antenna holding force: insert and pull the antenna core (antenna central contact) for 3 tir with a standard of 0.95mm, and then test the holding force with a standard pin of 0.90mr
The required holding force is: >;0.27 N

6, Antenna cryogenic test:

The low temperature test of the antenna hose is -25℃
The low temperature test of antenna head was -20℃

7, Others:

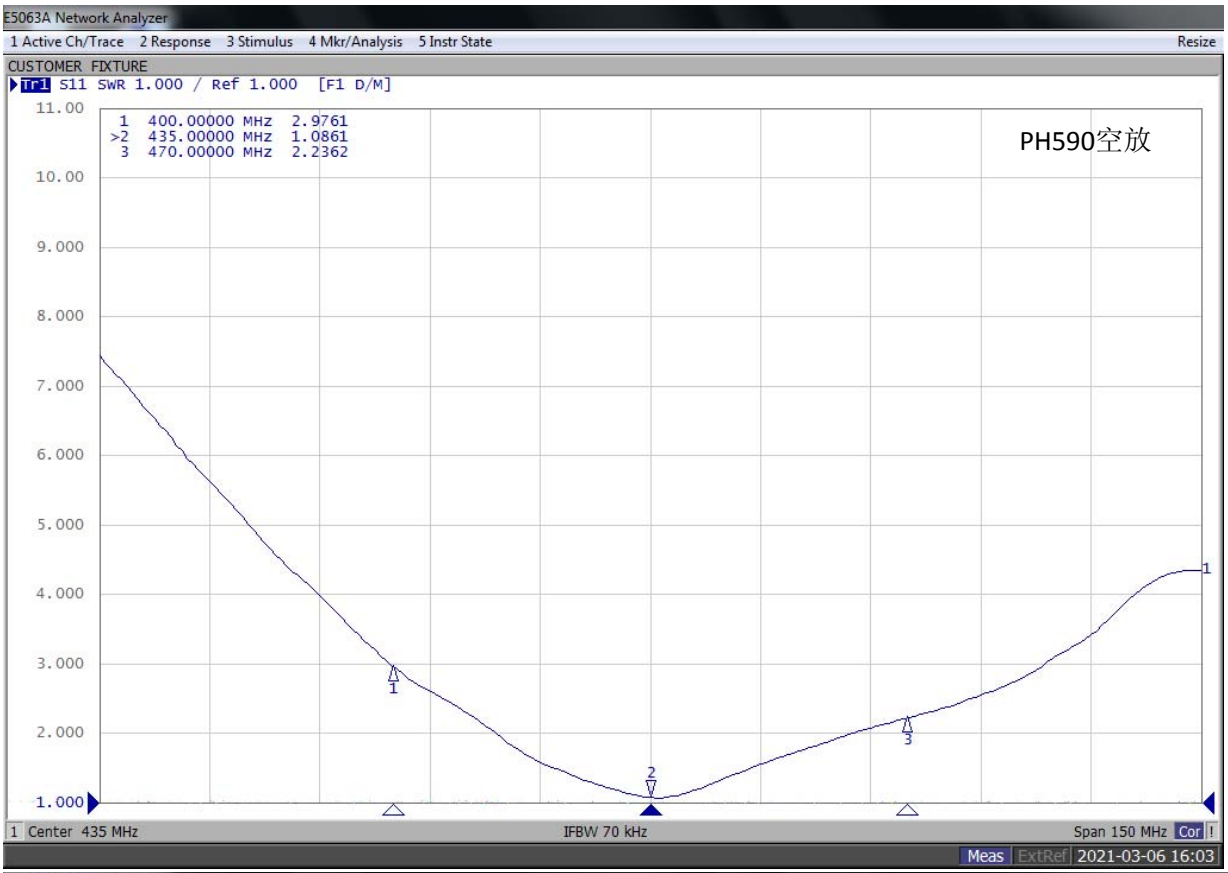
Any modification of this specification has to be agreed by us

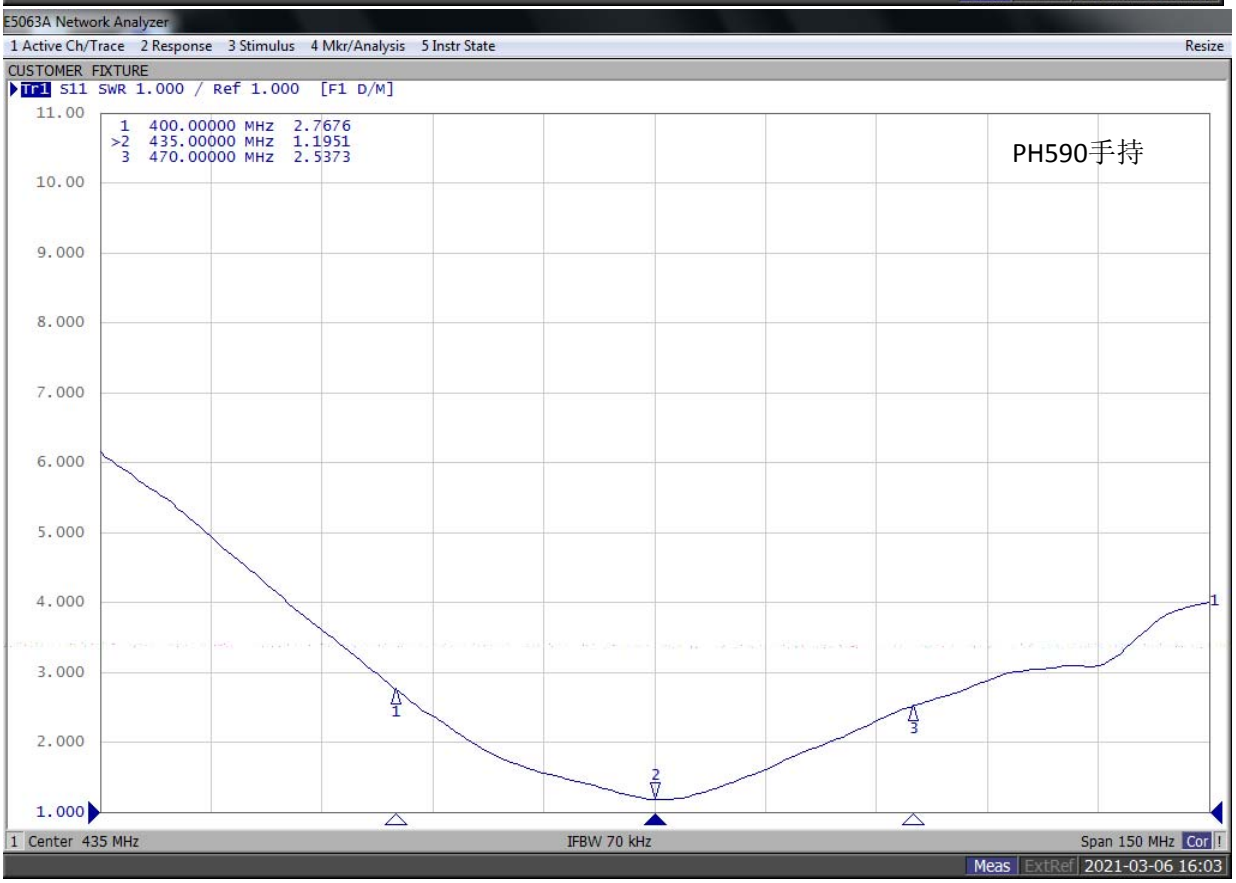
Prepared By: Checked By: Approval:

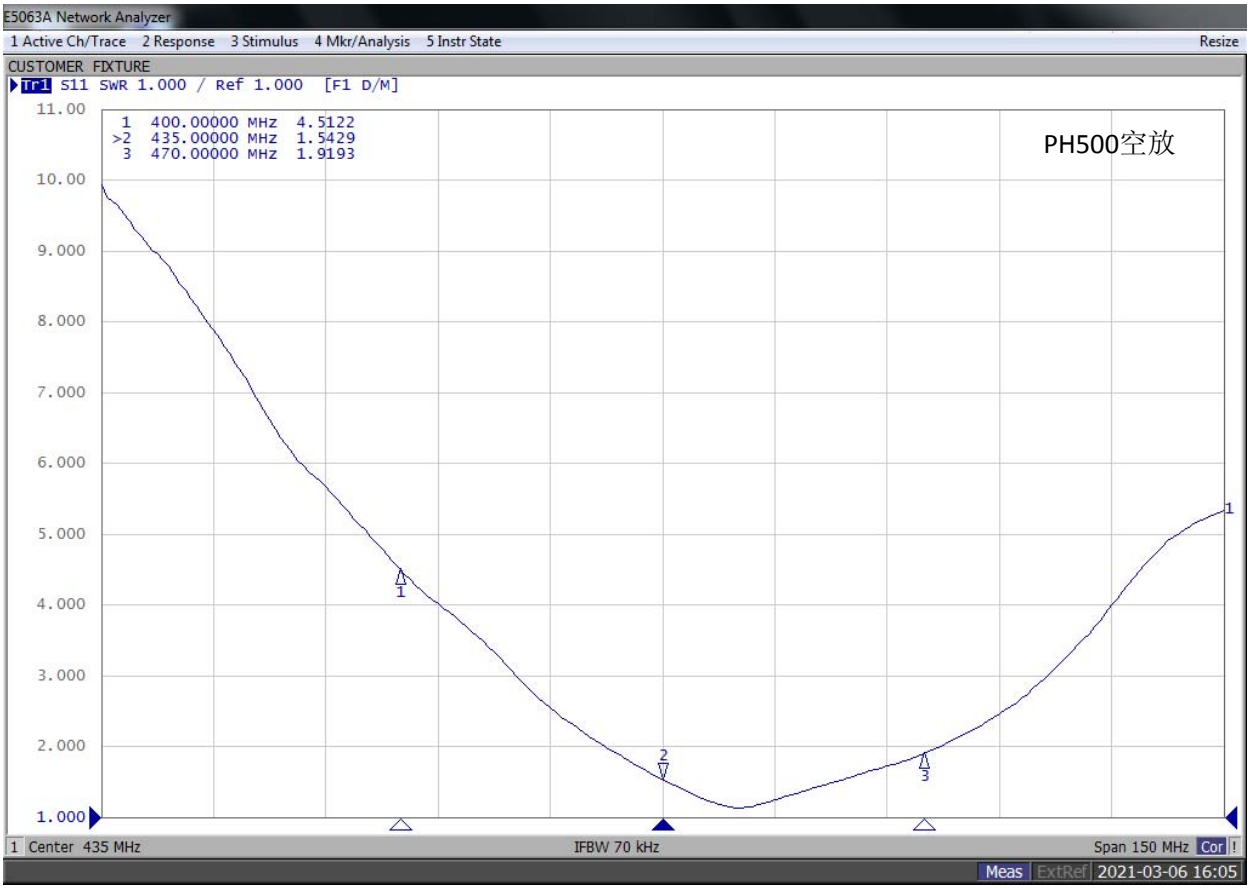
Capability Test Report

Specification NO.:

Model NO.: G-RA0K14091074-SZ586






E5063A Network Analyzer
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State
Resize
CUSTOMER FIXTURE
Tr1 S11 SWR 1.000 / Ref 1.000 [F1 D/M]
1 400.00000 MHz 4.5122
>2 435.00000 MHz 1.5429
3 470.00000 MHz 1.9193
PH500空放
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 435 MHz
IFBW 70 kHz
Span 150 MHz
Cor
Meas
ExtRef
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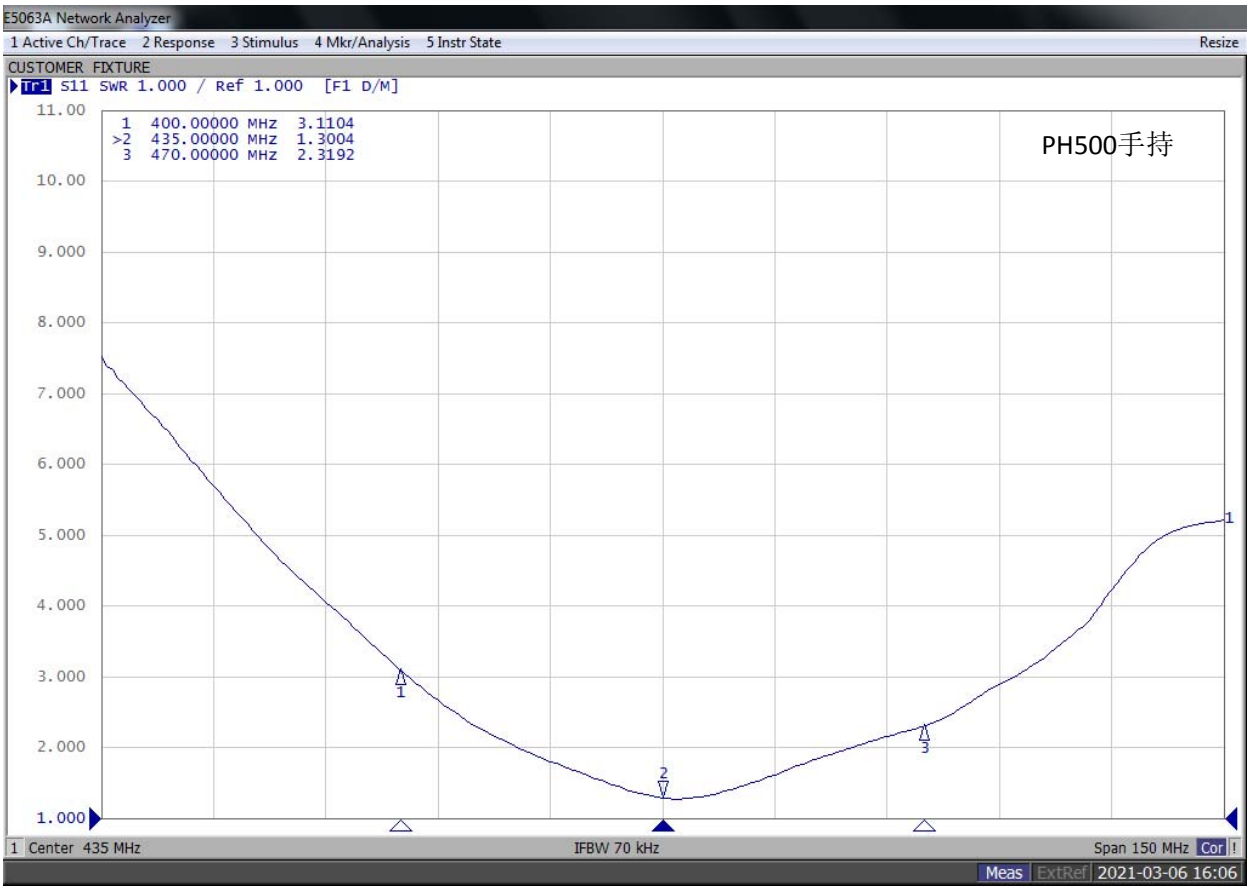
E5063A Network Analyzer
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State
Resize
CUSTOMER FIXTURE
Tr1 S11 SWR 1.000 / Ref 1.000 [F1 D/M]
1 400.00000 MHz 3.1104
>2 435.00000 MHz 1.3004
3 470.00000 MHz 2.3192
PH500手持
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 435 MHz
IFBW 70 kHz
Span 150 MHz
Cor
Meas
ExtRef
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