



福州市瀚宇正达电子有限公司

Word Easy Electronics Co.,Ltd.

规格承认书

SPECIFICATION FOR APPROVAL

日期 2024/11/25
Date

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版本 1.0
Revision

客户 魔方

CUSTOMER: _____

客户料号 M90

CUSTOMER NO: _____

品名 WIFI+GPS Antenna L=114mm MHF

PART NAME: _____

供方料号 WE008N.F0086.V01

SUPPLIER NO: _____

送样日期Date: 送样数量Q “TY:

客户确认CUSTOMER APPROVED BY

APPROVAL

CHIEF

SUPERVISOR

供方确认 SUPPLIER SIGNATURE

APPROVAL

CHECK

DESIGN

Hunter

Luo

Liu

WE-RD-F01-A



承认书项目表

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RoHS

Compatible

REV.

A

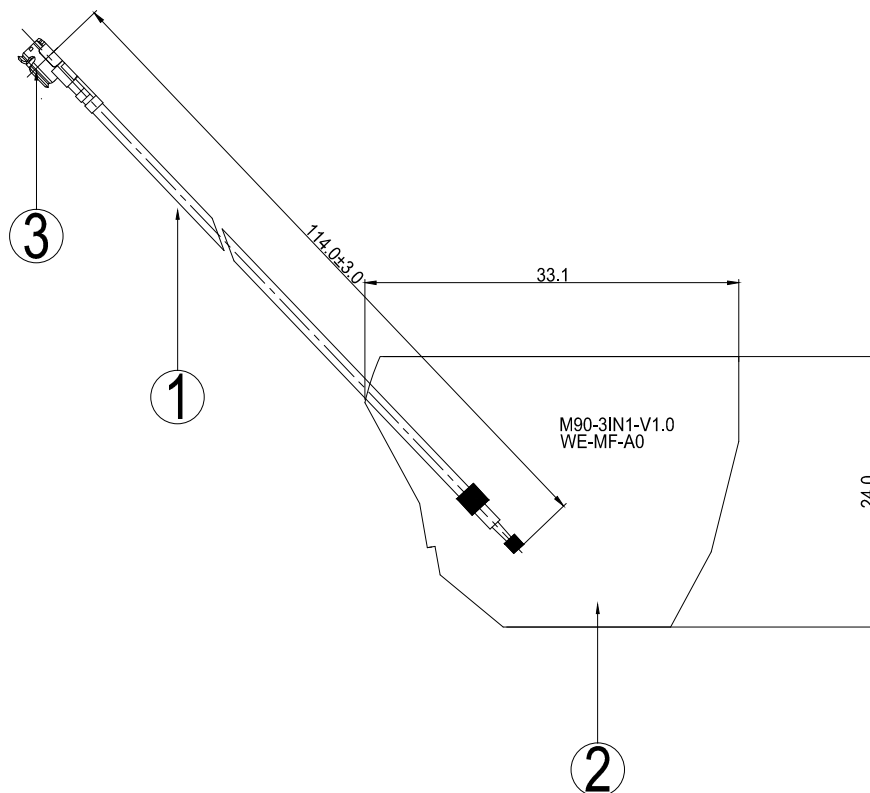
DESCRIPTION

首次发行

DATE

2024.11.21

B



福州市瀚宇正达电子有限公司

World Easy Electronics Co.,Ltd.

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PART NAME: GPS+WIFI Antenna L=114mm MHF

PART NO.: WE008N.F0086.V01

DATE: 2024-11-21

APPROVED BY

CHECKED BY

DESIGNED BY



UNITS: mm

SCALE: 1/1

REVISION: A

周红涛

Tolerance
X.X ±0.50
X.XX±0.15
X° ±3°

3	Mini Connector	Au Plated 3代	Cu	MET0XD3.V01	1
2	FPCB	33.1*24.0MM Black	FPCB	FPC0417.V01	1
1	Coaxial Cable	O.D.0.81 Black	O.D.0.81	CAB0081.V01	1
NO	PART NAME	DESCRIPTION	Material	Part Number	Q.TY



天线规格

Antenna Specification

Electrical Properties

Frequency	GPS:1575.42MHz WIFI:2400~2500MHz 5150~5850MHz
Impedance	50 Ohm Nominal
V.S.W.R	See Page 5
Return Loss	See Page 5
Radiation	Omni-directional
Gain (Peak)	See Page 7 ~ 9
Polarization	Linear
Connector	3代I-PEX

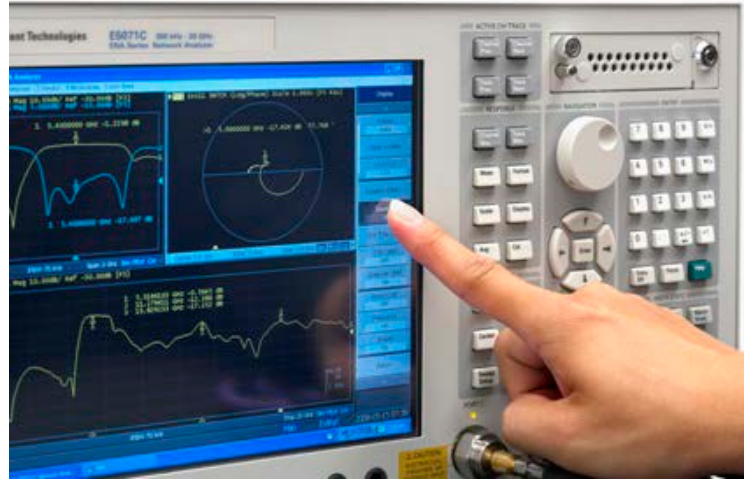
Physical Properties

Antenna Material	FPCB
Cable Type	O.D.0.81mm//L=114mm
Operating Temp.	-10 ~ +60 °C
Storage Temp.	-10 ~ +70 °C
Cable Color	Black

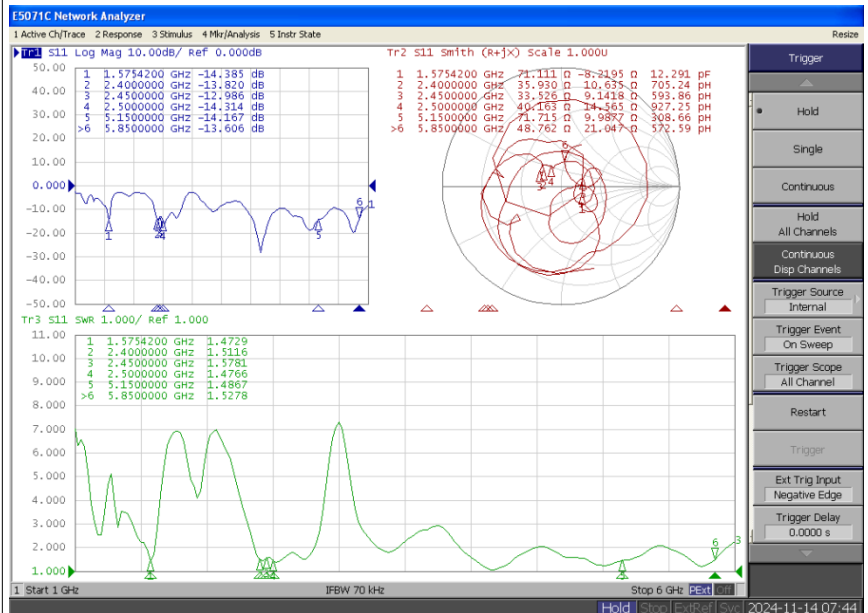


Antenna Performance Test

**Agilent
E5071C**



**S
Parameter
Test //
WIFI+GPS**





Antenna Passive Test





Passive Test For GPS

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1570	27.7	-5.6	-1.0
1571	27.7	-5.6	-1.1
1572	28.0	-5.5	-1.1
1573	28.5	-5.5	-1.0
1574	29.4	-5.3	-0.8
1575	30.6	-5.2	-0.7
1576	30.7	-5.1	-0.7
1577	31.0	-5.1	-0.6
1578	31.2	-5.1	-0.6
1579	31.3	-5.0	-0.6
1580	31.1	-5.1	-0.7



Passive Test For WiFi (2.4G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	61.7	-2.1	0.9
2410	55.0	-2.6	0.4
2420	61.1	-2.1	1.0
2430	56.1	-2.5	0.8
2440	63.9	-1.9	1.3
2450	59.2	-2.3	1.1
2460	64.9	-1.9	1.3
2470	54.4	-2.6	0.6
2480	60.9	-2.2	1.1
2490	57.3	-2.4	1.0
2500	63.2	-2.0	1.5



Passive Test For WiFi (5.8G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	62.1	-2.1	2.6
5200	57.6	-2.4	2.3
5250	56.2	-2.5	2.4
5300	60.2	-2.2	2.6
5350	68.7	-1.6	3.2
5400	73.2	-1.4	3.5
5450	69.4	-1.6	3.0
5500	68.6	-1.6	2.8
5550	71.7	-1.5	4.0
5600	69.0	-1.6	4.2
5650	69.8	-1.6	4.4
5700	70.6	-1.5	4.2
5750	77.8	-1.1	4.3
5800	69.9	-1.6	3.6
5850	64.8	-1.9	2.6



Antenna Active Test





OTA Test For WIFI

Band	Channel	Data Rate	TRP	EIRP	Data Rate	TIS	EIS
WIFI 2.4G 802.11b	1	11Mbps	14.0	18.2	11Mbps	-84.5	-88.3
	6		14.5	19.1		-85.9	-89.6
	13		13.2	18.1		-84.2	-88.4
WIFI 2.4G 802.11g	1	6Mbps	12.0	16.2	54Mbps	-72.0	-75.7
	6		12.3	16.9		-73.9	-77.7
	13		10.8	15.7		-70.9	-75.2



OTA Test For WIFI

Band	Channel	Data Rate	TRP	EIRP	Data Rate	TIS	EIS
WIFI 2.4G 802.11n	1	MCS7	12.7	16.8	MCS7	-67.8	-71.6
	6		13.7	18.2		-68.5	-72.4
	13		11.6	16.6		-66.7	-71.0
WIFI 5G 802.11a	36	6Mbps	10.3	14.5	54Mbps	-72.2	-74.9
	64		8.7	13.6		-71.8	-74.9
	161		7.7	13.1		-69.3	-72.9