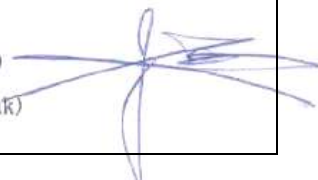


SPECIFICATION FOR APPROVAL

CUSTOMER	Defendec
DESCRIPTION	IP66 Miniature 2.4GHz Antenna (External) w/ Pigtail Cable
PART NO.	M48-FL-174-120-RPSMA
DATE	2024/1/3

DESIGNER	BILL CHANG	DIRECTOR	JASON TSAI
		YOUR STAMP YOUR SIGNATURE (Blue Ink)	

TEKFUN
Tekfun Co., Ltd.
4F., No. 32, Kunming St., Jhongli City,
Taoyuan Hsien 32089, Taiwan
Tel:886-3-4280826
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E-mail:info@tekfun.com.tw
URL:www.tekfun.com.tw

Approved by Customer/date:



Tekfun Co., Ltd.

ANTENNA SPECIFICATIONS FOR APPROVAL

1 GENERAL DESCRIPTION

- 1.1 Type No. : M48-FL-174-120-RPSMA
1.2 Customer P/N :

2 DESCRIPTION & APPLICATION

This antenna assembly is designed for use in 2.4GHz frequency

3 ELECTRICAL CHARACTERISTICS

- 3.1 Frequency Range : 2.4-2.5GHz
3.2 V.S.W.R : ≤ 2.5
3.3 Connector : RP-SMA Male
3.4 Impedance : 50 Ω
3.5 Gain : 2dBi (Peak)
3.6 Cable : RG174 120mm
3.7 Radiation : Omni-directional
3.7 Polarization : Linear
3.8 Antenna type : Monopole
3.9 Antenna Cover : PC, Black



4 ENVIRONMENTAL CHARACTERISTICS

- 4.1 Operating temperature range -30 ~ + 65 degree
4.2 Storage Temperature: -40 ~ +75 degree
4.3 Waterproof: IP66 rating

5 QUALIFICATION TESTING

- 5.1 All products shall be able to withstand the following testing.
5.2 Physical dimensions identified within this specification.

6 PACKING

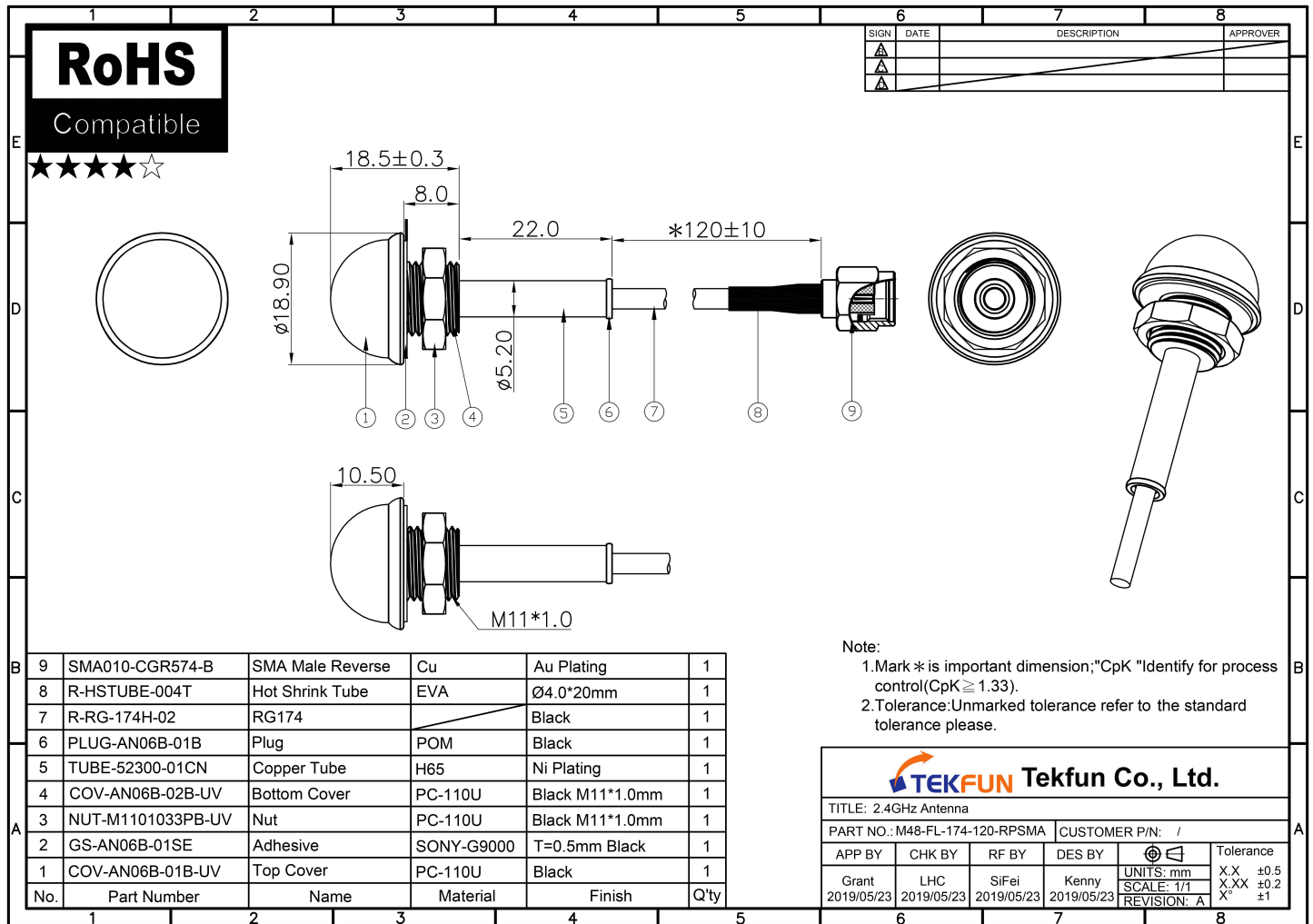
- 6.1 Packing: Poly Bag.



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ANTENNA SPECIFICATIONS FOR APPROVAL

7 DRAWING

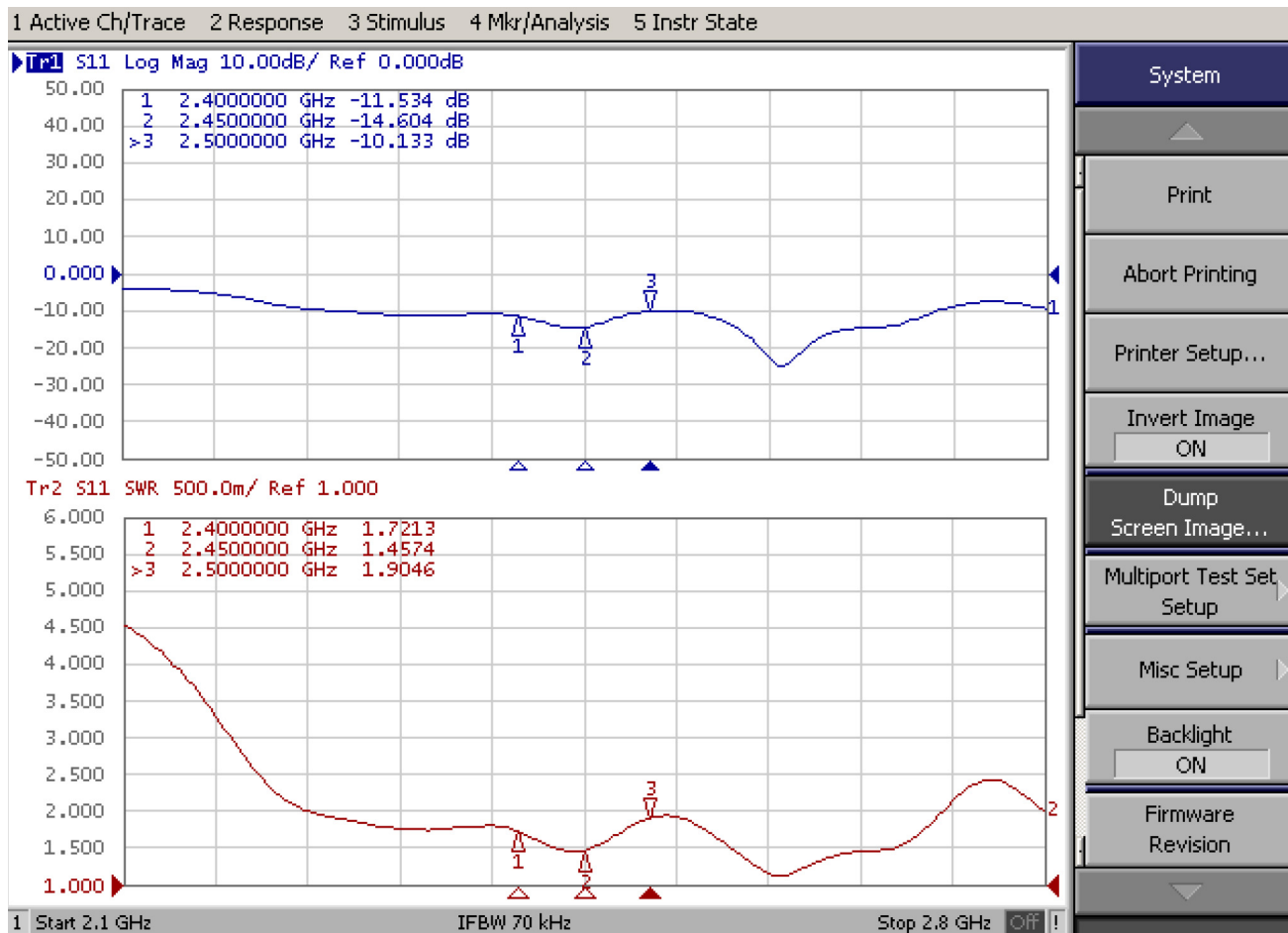




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ANTENNA SPECIFICATIONS FOR APPROVAL

8 TEST VSWR – Return LOSS

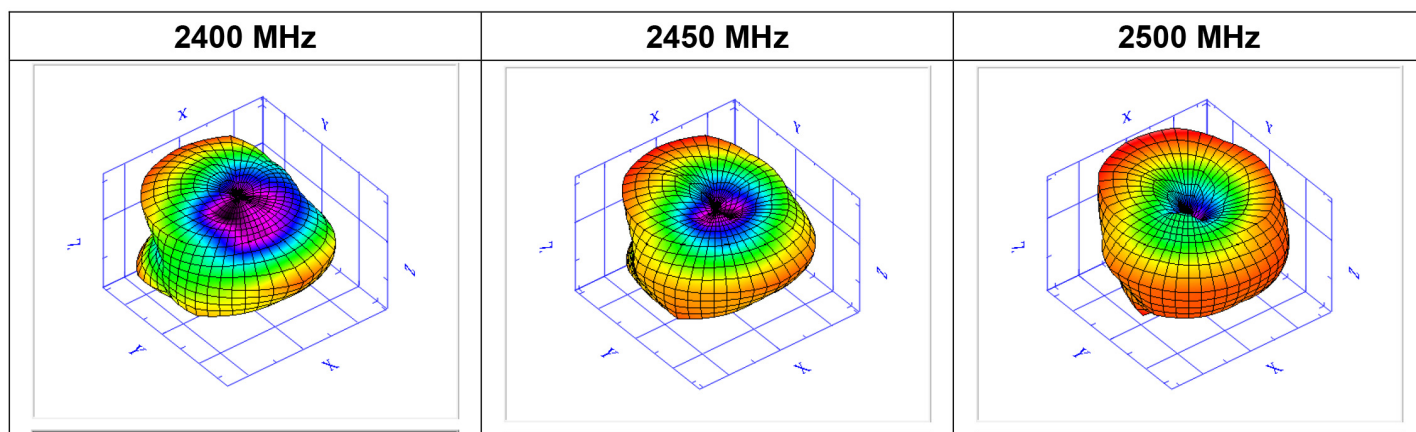




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ANTENNA SPECIFICATIONS FOR APPROVAL

9 TEST PATTERNS



Frequency	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
E-Total Peak Gain (dBi)	2.9	2.8	3.1	3.31	3.07	2.98	3.27	2.96	3.16	2.92	3.17
Efficiency (%)	55.1	54.62	55.63	56.21	57.01	56.31	59.08	58.23	59.51	57.98	62.47
Average Gain (dB)	-2.59	-2.63	-2.55	-2.5	-2.44	-2.49	-2.29	-2.35	-2.25	-2.37	-2.04