

承 認 書 SPECIFICATION FOR APPROVAL

客戶名稱	
CUSTOMER:	

客戶料號

CUSTOMER'S P/N:

料號

PART NUMBER: WAN5010F245H07

規格

DESCRIPTION : Chip Antenna 5010 M-Ant 2.4~2.5G Type HO

版本

VERSION: V1.5

日期

ISSUE DATE : 2023/06/14



4	A	工程部 R&D CENTER	
	承認 APPROVAL	確 認 CHECKED	製 作 DRAWN
2	Ray	Tennyson	Snow





萬誠科技股份有限公司

112台北市北投區立功街 151號 1樓

電話: (02) 2898-2220 傳真: (02) 2898-5055

OneWave Electronic Co., Ltd.

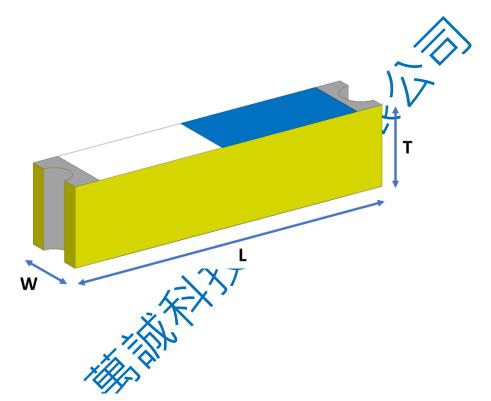
1F, No. 151, Li Gong Street, Beitou District, Taipei City 112, Taiwan

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5010 Chip antenna

For Bluetooth / WLAN Applications



P/N: WAN5010F245H07

	Dimension (mm)
L	5.02 ± 0.20
W	1.12 ± 0.20
Т	1.25 ± 0.20



Part Number Information

WAN 5010 F 245 H 07
A B C D E F

Α	Product Series	Antenna
В	Dimension L x W	5.0X1.0mm (\pm 0.2mm)
С	Material	High K material
D	Working Frequency	2.4 ~ 2.5GHz ~
E	Feeding mode	Monopole & Single Feeding
F	Antenna type	Type = 07

1. Electrical Specification

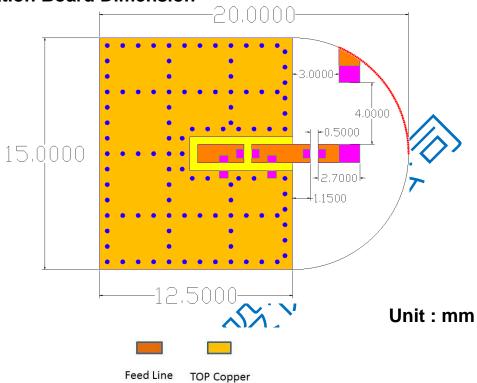
Specification						
Part Number	WAN5010F245H07					
Central Frequency	2450	MHz				
Bandwidth	100 (Min.)	MHz				
Return Loss	-10 (Max)	dB				
Peak Gain	3.09	dBi				
Impedance	50	Ohm				
Operating Temperature	-40~+110	°C				
Maximum Power	4	W				
Resistance to Soldering Heats	10 (@ 260℃)	sec.				
Polarization	Linear					
Azimuth Beamwidth	Omni-directional					
Termination	Termination Cu / Sn (Leadless)					

 $Remark: Bandwidth \ \& \ Peak \ Gain \ was \ measured \ under \ evaluation \ board \ of \ next \ page$



2. Recommended PCB Pattern

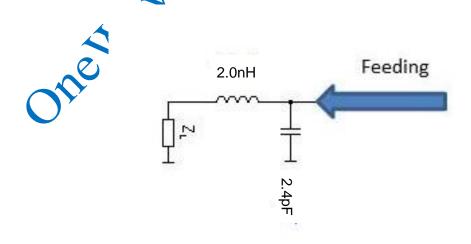
Evaluation Board Dimension



Suggested Matching Circuit

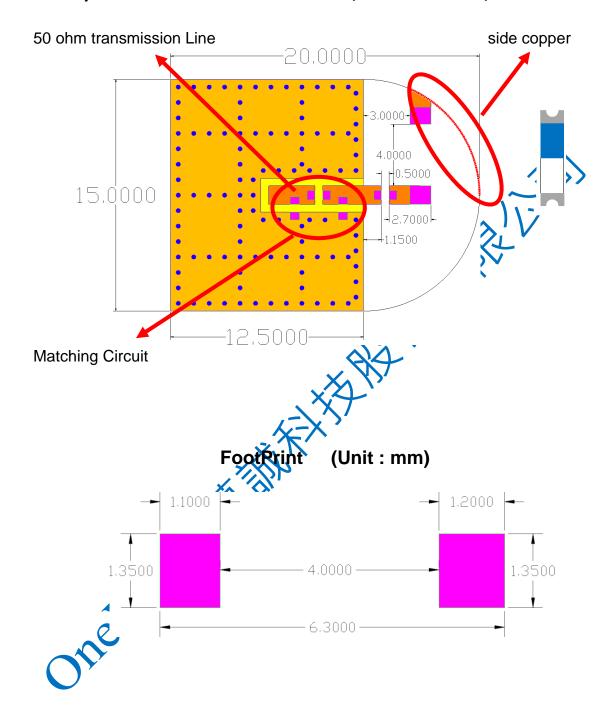
重要資訊

匹配元件建議使用精準度高的電感±0.1~0.3nH、電容±0.1pF





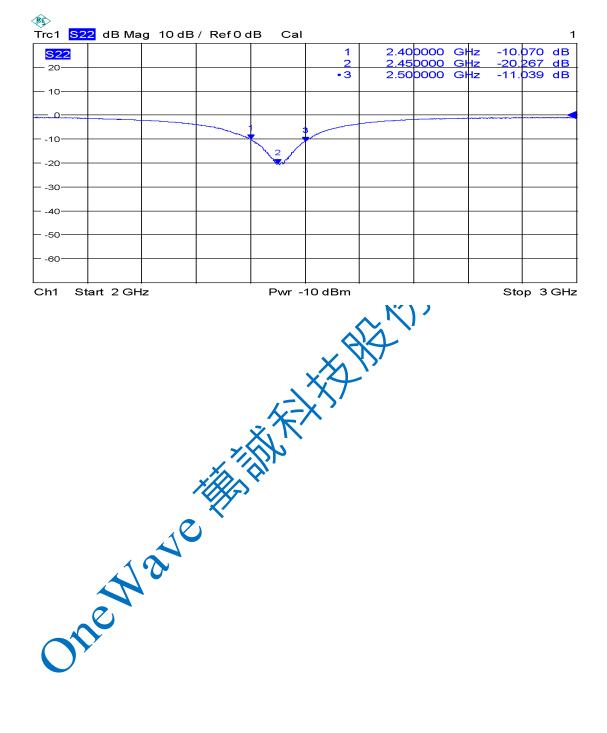
Layout Dimensions in Clearance area(Size=15.0*7.50mm)





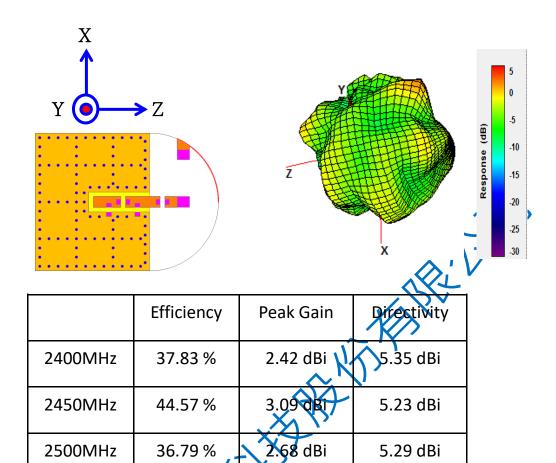
3. Measurement Results

Return Loss

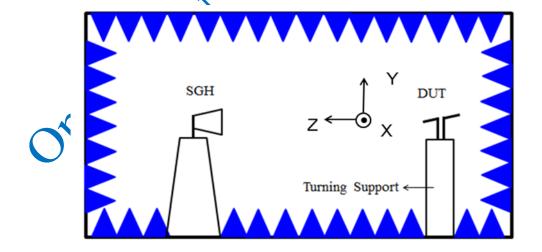




Radiation Pattern



Chamber Coordinate System





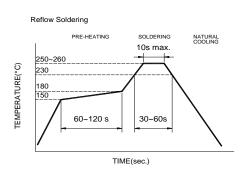
4. Reliability and Test Condictions

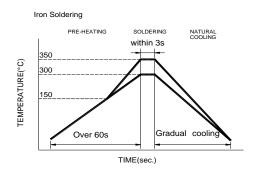
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S IND DISCONDUCTION OF SHORT OFFICER	abilized at normal		
condition for 2~3 ho	urs before measuring.		
	<u> </u>		
Humidity 1. No visible mechanical damage Temperature: 40±2°	C		
2. Central Freq. change :within ±6% Humidity: 90% to 95	5% RH		
Duration: 1000+12h			
3. No disconnection or short circuit. The chip shall be st	abilized at normal		
	urs before measuring.		



5. Soldering and Mounting

Mildly activated rosin fluxes are preferred. The minimum amount of solder can lead to damage from the stresses caused by the difference in coefficients of expansion between solder, chip and substrate. The terminations are suitable for all wave and re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.





Recommended temperature profiles for re-flow soldering in Figure 1.

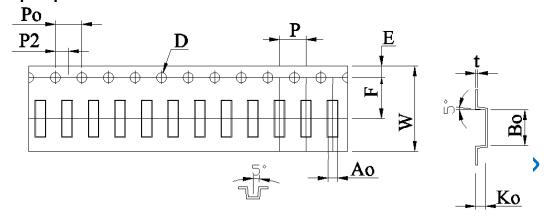
Products attachment with a soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

- Preheat circuit and products to 150°C
- Never contact the ceramic with the iron tip
- Use a 20 watt soldering iron with tip diameter of 1.0mm
- 280°C tip temperature (max)
- 1.0mm tip diameter (max)
- Limit soldering time to 3 sec.



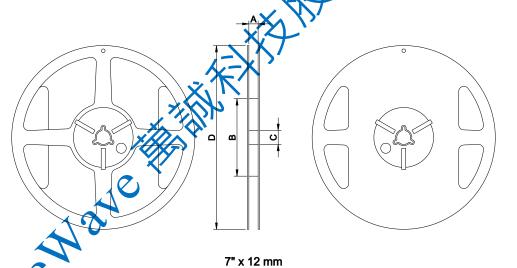
6.Packaging Information

♦ Tape Specification:



W	Ao	Во	Ко	Р	F			D1		P2	t
12.0	1.30	5.50	1.50	4.00	5.50	1.75	1.50	0.50	4.00	2.00	0.25
±0.30	±0.10	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.10	±0.10	±0.05

♦ Reel Specification: (7", Φ180 mm)



Tape Width(mm)	A(mm)	B(mm)	C(mm)	D(mm)	Chip/Reel(pcs)
12	12±1.0	60±2	13.5±0.5	178±2	3000



7. Storage and Transportation Information

Storage Conditions

To maintain the solderability of terminal electrodes:

- 1. Temperature and humidity conditions: -10~ 40°C and 30~70% RH.
- 2. Recommended products should be used within 6 months from the time of delivery.
- 3. The packaging material should be kept where no chlorine or sulfur exists in the

Transportation Conditions

- 1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- 2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
- 3. Bulk handling should ensure that abrasion and mechanical shock are minimized.