后芮驷(上海)电子有限公司

Horus International Electronics Co., LTD.

承认书

SPECIFICATION FOR APPROVAL

编号:

品名 DESCRIPTION： 超宽带解耦器

规格 SPEC : HRS-RUWBB5000X0T

包装 PACKAGE: 卷装

客户 CUSTOMER：

客户料号 CUSTOMER P/N:

APPROVED BY	
CUSTOMER	HORUS

唐碩科技股份有限公司
RDM Technology Co., Ltd.
RF Happy Design Partner

DATA SHEET

Ultra Wide Band NOISE SUPPRESOR

100KHz ~3GHz Operating Frequency

P/N: RUWBB5000X0T

*Content in this sheet are subject to change without prior notice.

Features

- Surface Mounted Devices with a small dimension (0805) meet future miniaturization trend
- Embedded and hybrid technology is able to future integrate with system design as well as beautifying the housing of final product
- High Stability in Temperature/Humidity Change
- Peak current for 1.9A
- Automotive certification approved for AEC-Q200

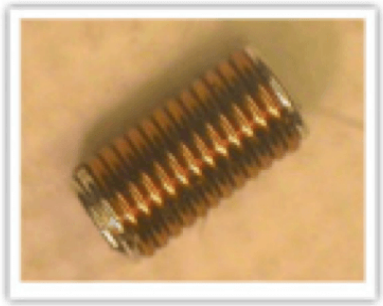
Applications

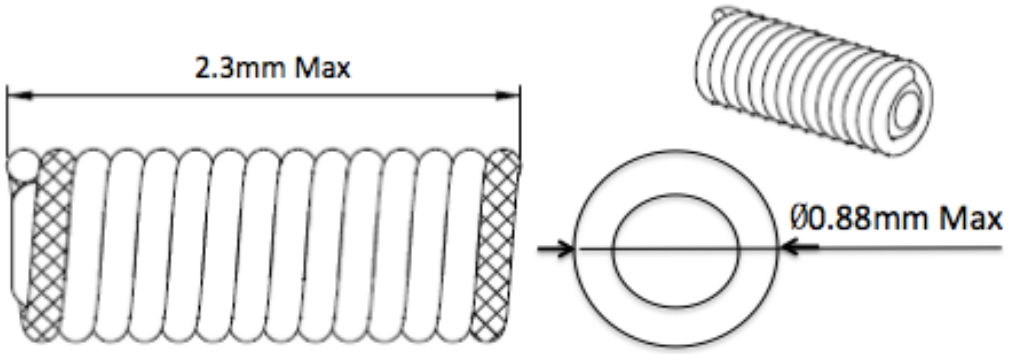
- 100KHz~3GHz Ultra Wide Band DC current noise insulation application
- AC/DC Power noise insulation
- Chip VCC/DC Power EMI noise insulation
- USB Power and data signal EMI noise insulation
- Common ground bridge for digital and analog
- Enhance tolerance of ESD +-1.5kv
- To improve RS and BCI(Bulk current injection) tolerance when use as T-Type Filter on IC power input

Description

RDM Technology develops a RF & Microwave hybrid ICs, established by RF engineers, At that time, we were developing micro miniaturized UWB Noise Suppressor Which was made of new idea used in D.C. bias until of RF hybrid ICs. We though that this UWB Noise Suppressor will certainly be useful for EMI/EMC measure that troubled the digital circuits designers. We firmly believe that in order to have them used. We want the name where effect is recognized. It was the word “Noise Decoupling Suppressor ”

Construction (Unit: mm)

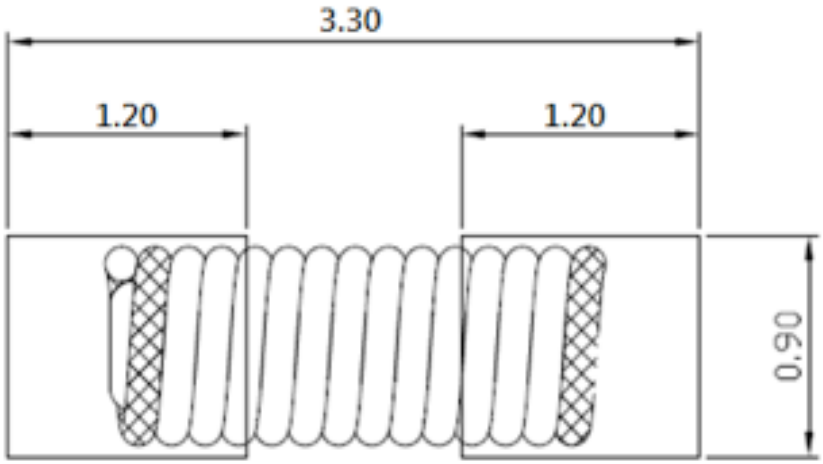




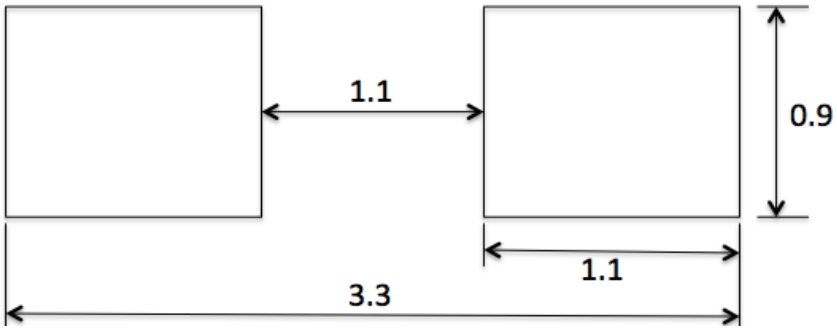
- Termination
  Solder Coated: Composition: Silver
- Weight
  0.005g
- Ferrite Core Material
  Alloy
- Coil Material
  Special silver enameled wire

Soldering Pad Size (Unit: mm)

This pad size design follow IPC-SM-780 standard must be obey



⚠ RECOMMENDED PCB LAYOUT(±0.05)



Stencils opening size suggestion

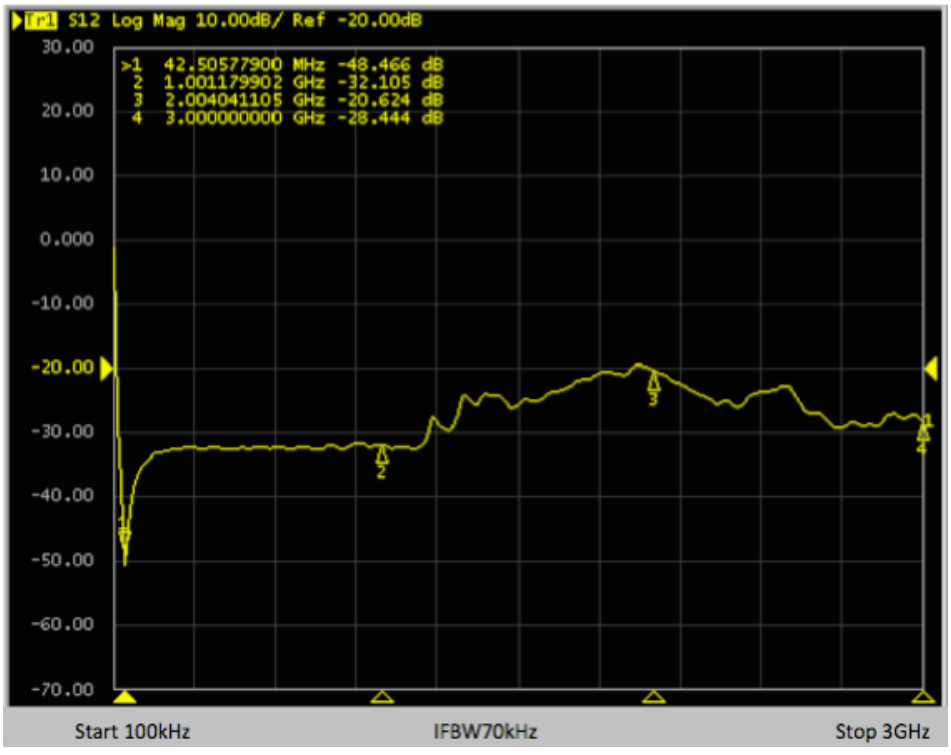
(Thickness of solder paste around 0.1-0.12mm, 3% silver content)

Electrical Characteristics

RF Characteristics:

Item	Specification	Remark
Band Width	Noise Attenuation Level	Match De-Capacitor
100KHz~ 1.0GHz	-35dB	100nF
1.0GHz ~ 2.0GHz	-25dB	100nF
2.0GHz ~ 3.0GHz	-25dB	100nF
Inductance	307nH	At 100MHz
Capacitance	3pF	At 100MHz

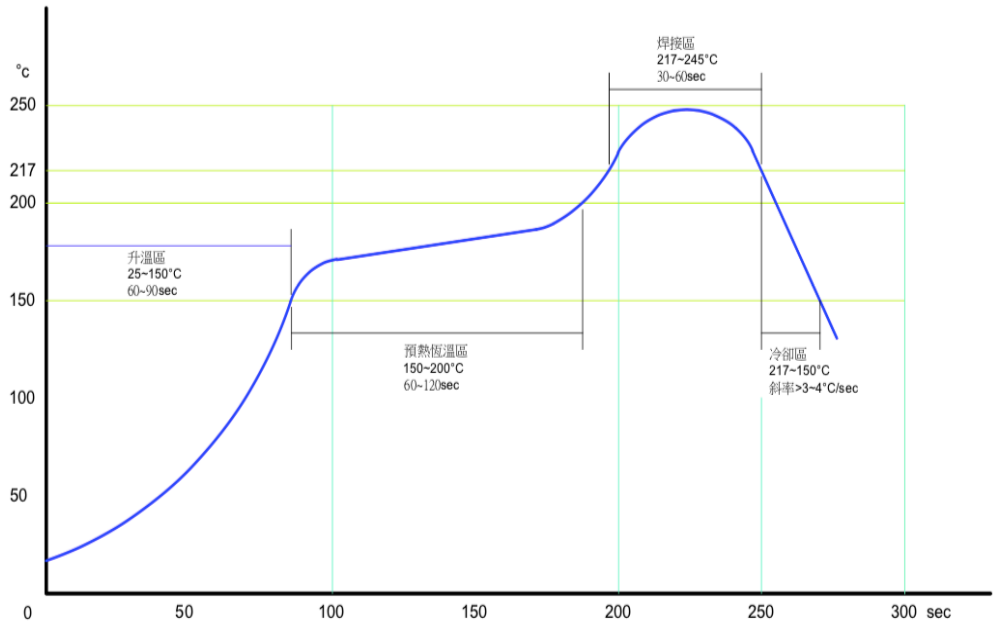
Noise Attenuation Level:
Start: 100K (Hz)
Stop: 3G (Hz)
Cap Value: 1uF



Rating Characteristics:

Item	Specification	Remark
DC Resistance	**45mΩ**	@25°
Rate Current	**1900mA**	**Max**
Peak Break Current	**2300mA**	**40ms**
Soldering Temperature	**+250°C**	**-**
Operating Temperature	**-40°C ~ 125°C**	**-**
Storage Temperature	**-0°C ~ 40°C**	**Product with taping**

Reflow/Flow Profile:



1. Please follow the pad size and stencil opening recommendations in the specification;
2. The thickness of the solder paste is recommended to be 0.1~0.12mm (with 3% silver SAC305);
3. It is recommended to use U or V type for the SMT machine;
4. When placing the UWB on the PCB while processing, please press down a certain Z-axis distance slightly to ensure effective contact between the UWB and the solder paste on the pad;
5. Please do follow the cooling zone of the reflow temperature curve > 3°c/sec to prevent physical warping;

Environmental Characteristics

Reliability Test / Mechanical Performance

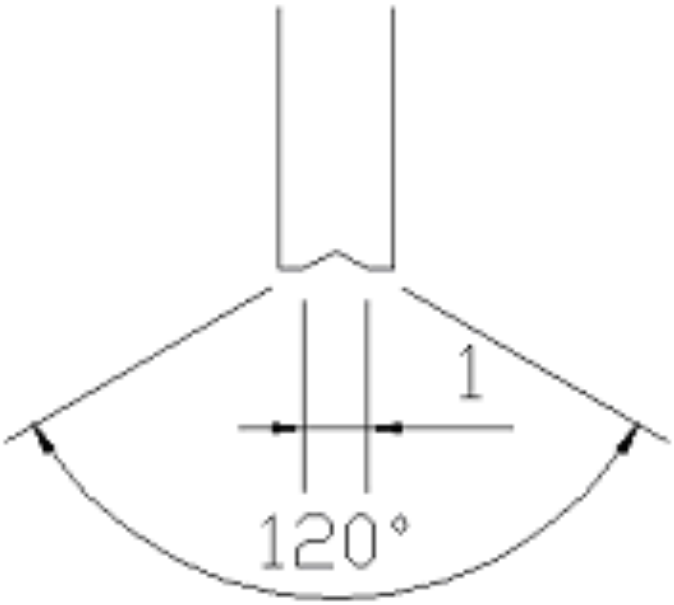
Test Item	Test condition	Specification
Humidity Resistance	Humidity: 90% ~ 95% R.H. Temperature: 50± 2°C Time: 500± 24hours Measurement: After placing for 24 hours Minimum	No mechanical damage Sample shall satisfy electrical specification after test
Temperature Cycle	1. 30± 5 minutes at -40°C± 5°C 2. 10~15 minutes at room temperature 3. 30± 5 minutes at +125°C± 5°C 4. 10~15 minutes at room temperature Total 100 continuous cycles	No mechanical damage. Sample shall satisfy electrical specification after test
High Temperature	Temperature: +150°C± 3°C Test Duration: 48hours	No mechanical damage. Sample shall satisfy electrical specification after test
Low Temperature	Temperature: -40°C± 3°C Test Duration: 48hours	No mechanical damage. Sample shall satisfy electrical specification after test

Ordering Code

RUWB	B	xxxx	X	0	T
RDM UWB device	**Product code** B: CLK/Data Choke	**Internal code** **5000**	**Application** X: Ultra Wide Band	**Specification** Code from 0~9 Dependent on Different electrical specification	**Packing** T: 7” Reeled G:10” Reeled B: Bulk X:

SMD Machine Head120° V Cut Diagram

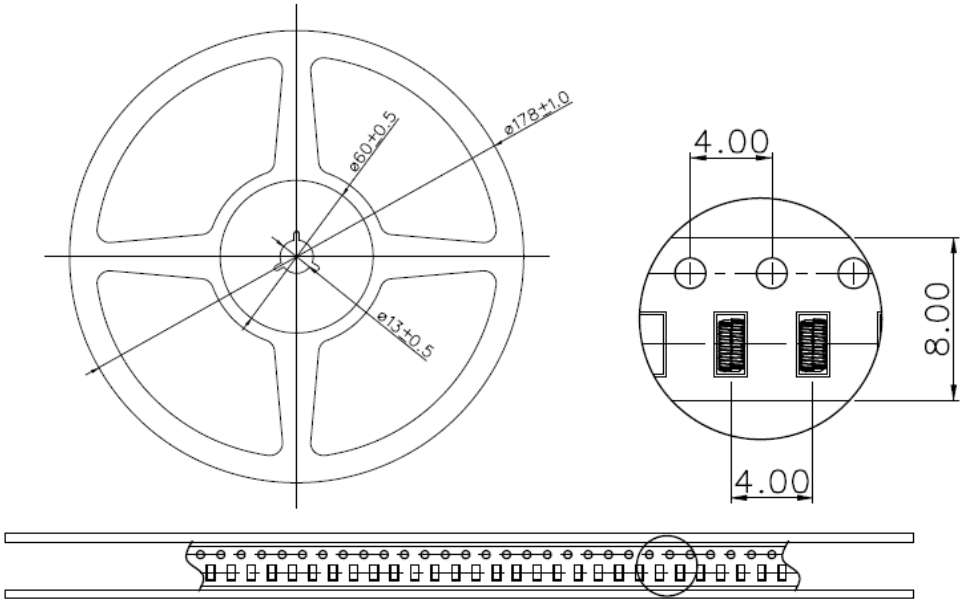
(unit: mm)



※ **Please do not use magnetic materials**

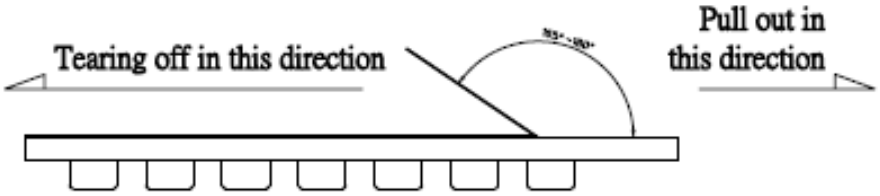
TAPE & REEL PACKAGING INFORMATION

STANDARD QUANTITY EMBOSSED TAPE 4,000 Pcs/7" REEL



Notes:

● 9. Force of tearing off top tape 15~80gf.



10. Edge of rooling up should be adhered.
The top cover tape to the side of reel an adhensive tape.
11. Top cover tape should be limited in area of plastic tape.
12. Quantity：Plastic reel about 4000pcs/7"reel.

- Storage Conditions(component level)
  To maintain the solder ability of terminal electrodes:
  1. RDM products meet IPC/JEDEC J-STD-020D standard-MSL, level 1.
  2. Temperature and humidity conditions: Less than 40℃ and 60% RH.
  3. Recommended products should be used within 12 months form the time of delivery.
  4. The packaging material should be kept where no chlorine or sulfur exists in the air.
- Transportation
  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