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：	Ultra Wide Band NOISE SUPPRESSOR 300KHz ~ 1GHz Operating Frequency
规格	SPEC :	HRS-RUWBUC2012X0T-2
包装	PACKAGE:	卷装
客户	CUSTOMER：	
客户料号	CUSTOMER P/N:	

APPROVED BY	
CUSTOMER	HORUS

DATA SHEET

Ultra Wide Band NOISE SUPPRESSOR
300KHz ~ 1GHz Operating Frequency
P/N: RUWBUC2012X0T-2

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

1. Features

- Surface Mounted Devices with a small dimension (2012) 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
- Max current for 600mA
- AECQ200

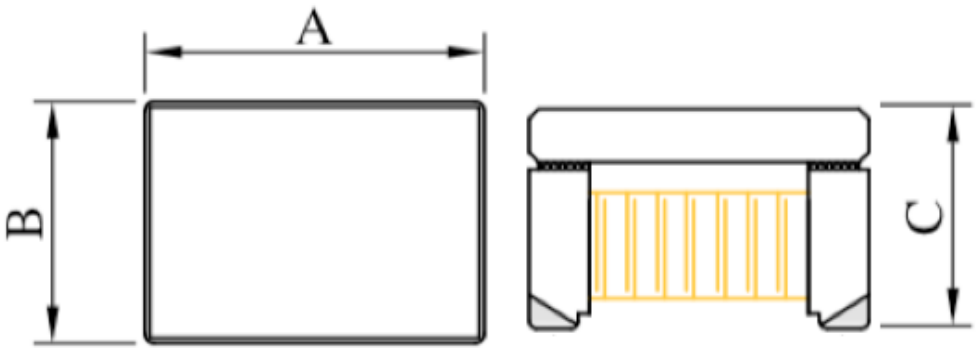
2. Application

- 300KHz~1GHz Ultra Wide Band DC current noise isolation application;
- Clock noise isolation;
- Narrow band EMI noise isolation;
- Differential and data signal EMI noise isolation;
- Enhance tolerance of ESD +-1.5kv;
- To improve RS and BCI (Bulk current injection) tolerance when use as T-Type Filter on IC I/O input;
- To improve GPS sensitivity effectively when use the UWB on GPS module power input;
- Use the UWB at Diode both side in series mode, it can eliminate the reserve current which generated by the Diode;
- Use the UWB on audio amplifier output; it can solve the problem of handheld antenna signal...

3. 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”.

4. Construction (Unit: mm)

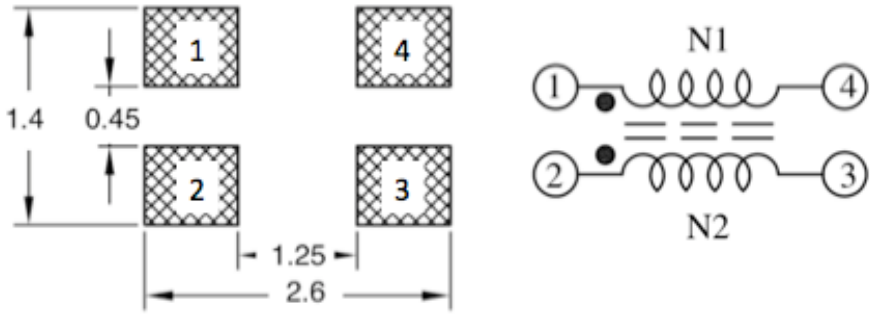


A : 2.2 Max.
B : 1.4 Max.
C : 1.4 Max.

- Termination
  Solder Coated: Composition: Ag,Ni,Au
  Weight:0.01g Ref.
- Ferrite Core Material: Alloy
- Coil Material: Special enameled wire

Soldering Pad Size (Unit: mm)

This pad size design follow IPC-SM-780 standard must be obey
Thickness of solder paste around 0.1-0.12mm, 3% silver content



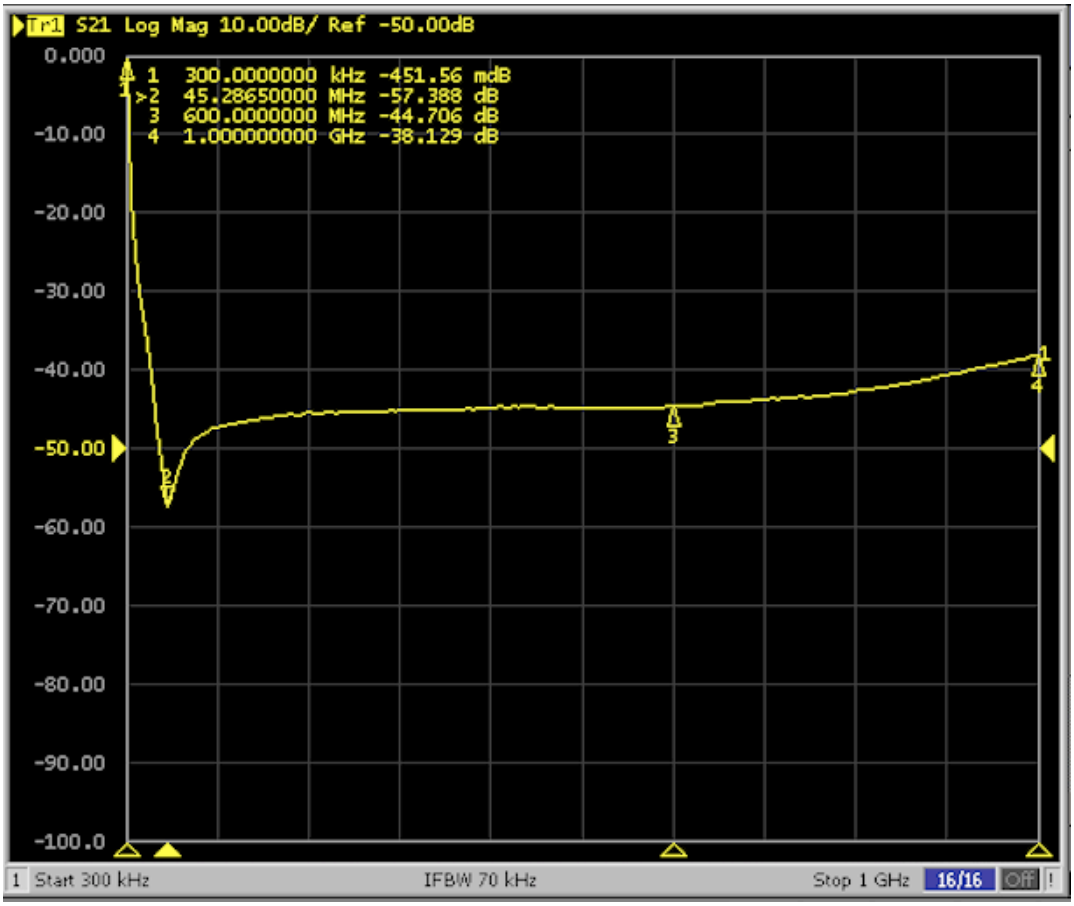
To be sure the consistency of the copper foil size under the PAD openings on both sides to prevent tombstone, solder empty and component shifted effect.

5. Electrical Characteristics

- RF Characteristics

Item	Specification	Remark
Band Width	Noise Attenuation Level	Match De-Capacitor
300KHz~ 1.0GHz	-57dB ~ -38dB	0.1uF~4.7uF
Inductance	500nH (Max)	At 100MHz

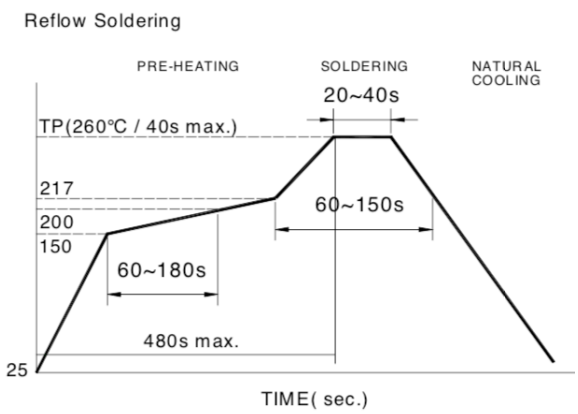
- Noise attenuation feature
  Start: 300KHz
  Stop: 1GHz
  Cap Value: 4.7uF



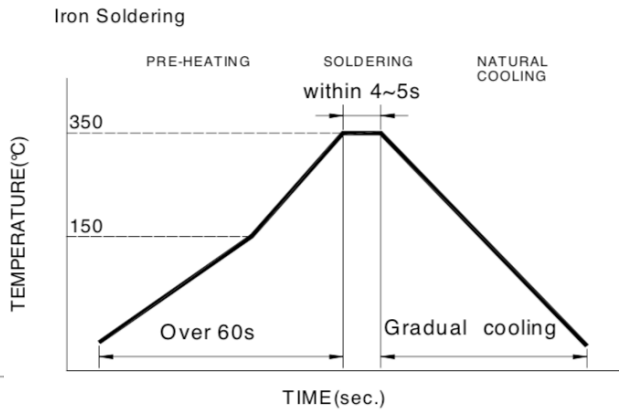
6. Rating Characteristics

Item	Specification	Remark
DC Resistance	260mΩ	@25° Max.
Rate Current	600mA	Max
Peak Break Current	1000mA	40ms
Soldering Temperature	+250˚C	SMT standard temp.
Operating Temperature	-40˚C ~ 125˚C	Including self – temp. rise
Storage Temperature	0˚C ~ 40˚C	Product with taping

- Reflow/Flow Profile



Reflow times: 3 times max
Fig.1



Iron Soldering times：1 times max
Fig.2

7. Environment 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

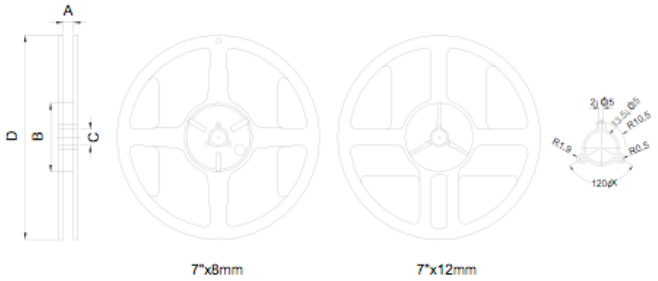
- Ordering Code

RUWB	UC	xxxx	X	0	T
RDM UWB device	Product code UC: Ultra Choke	Internal code 2012	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:

8. Tape & Reel Packing Information

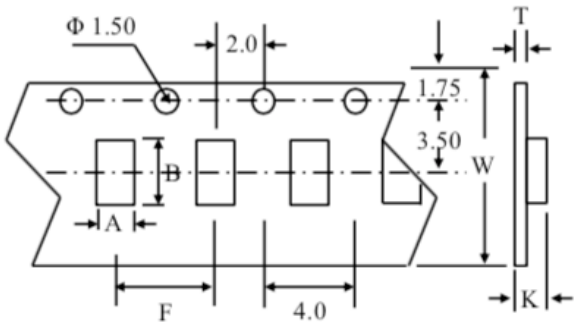
Packaging Quantity: 2000pcs/Reel

(1)Reel Dimension:



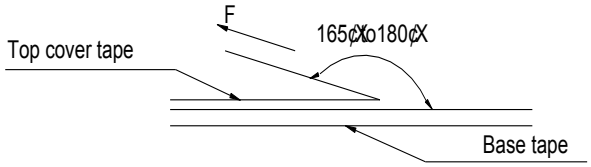
Type	A (mm)	B (mm)	C (mm)	D (mm)
7"x8mm	9.0±0.5	60±2	13.5±0.5	178±2
7"x12mm	13.5±0.5	60±2	13.5±0.5	178±2

(2) Tape Dimension:



A(mm)	B(mm)	F(mm)	K(mm)	T(mm)
1.42	2.26	4.00	1.30	0.23

(3) Tearing Off Force:



Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions(referenced ANSI/EIA-481-D-2008 of 4.11 standard).

Application Notice

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

· Transportation1.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.