承 认 书

Specification

客户名称： Customer	
产品型号： Type	LFA201A
客户料号： Part Name	WX-3642211
图纸编号： Spec. No.	S-2020-001
项目名称： Project	低频天线
版　　本： Edition	Ver.1.0
日　　期： Date	2020-08-16

客 户 承 认 **Customer Approved**		

供 应 商 签 章 **Vendor Signature**
嵊州市兰花电器科技有限公司 Lanhua Electric Technology Co.,Ltd (印章)

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Specification 承认书	Type 型号: *LFA201A*	S/N: 图号 *S-2020-001*	Ver. *1.0*	LanHua
		P/N: 料号 *WX-3642211*	Description: *LF Antenna*	

更改记录【Revision Records】

版本【Ver】	日期【Date】	更改内容【Revisions】	更改者【Editor】
1.0	2020-08-16	First edition	*Jacky*

ks: PAT.CN 200920205768.7	APPROVED	Lanhua Electric Technology Jason Shi 施晓华	CKECKED		DESIGNED	Lanhua Electric Technology Steve Chen 陈培华

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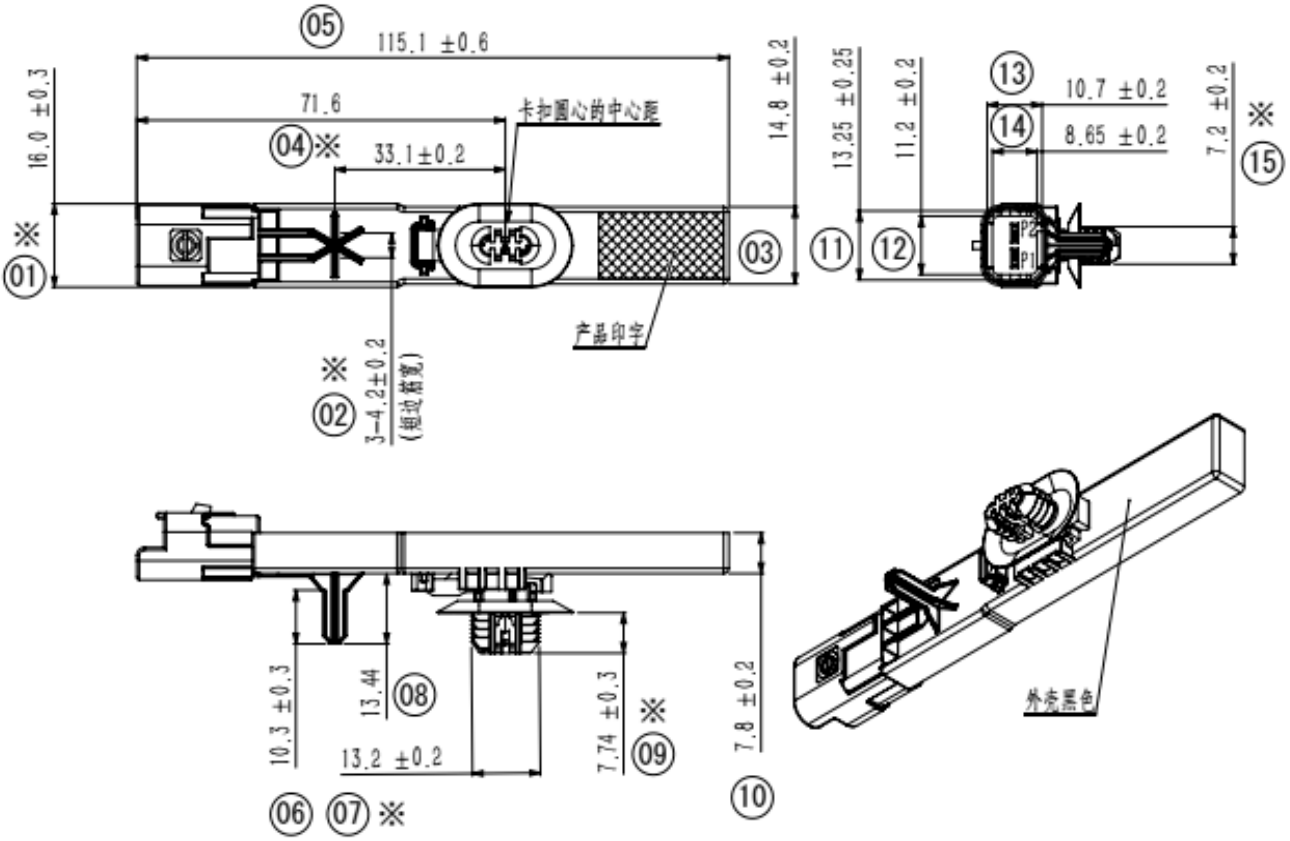
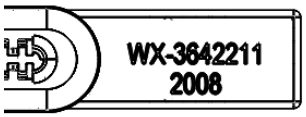
1. 外形尺寸【Dimensions】



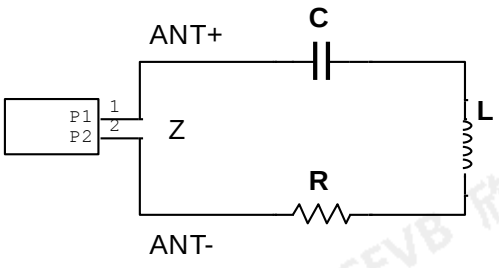
All Dimension in mm

2. 产品印字【Marking Information】



Two groups be marked on the CASE.
Group 1 shows the product P/N, group 2 shows the manufacture year and month.

3. 原理图【Schematic Diagram】



L：线圈电感 [Coil Inductance]

R：内部电阻 [Internal Resistance]

C：内部调谐电容 [Internal Tuning Capacitor]

Z：外部阻抗 [External Impedance]

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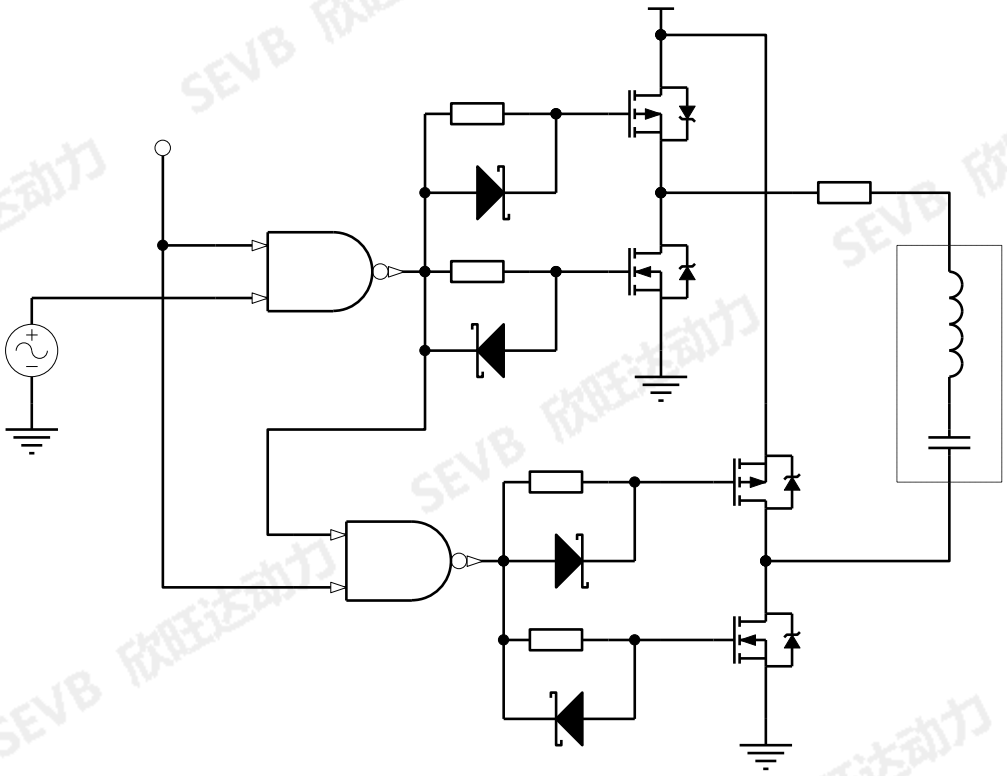
4. 电性能参数【Electrical Characteristics】

Resonant Frequency (f_0)	125.0kHz±2%	Room Temperature, Vsin=5Vpp, +VDD=5V, R5=0Ω
Resonant Resistance (Z_0)	≤4Ω	
Polarity	PIN1：ANT+	

5. 测试电路【Application Diagram】



6. 可靠性测试【Reliability Tests】

GENERAL CHARACTERISTICS

There should be no noise and rickety component before the progress of the examination or afterwards.

6.1. Storage Temperature Range:

－40℃～＋90℃ (coil's heat generation is not included)

6.2. Operating Temperature Range:
－40℃～＋85℃ (coil's heat generation is not included)

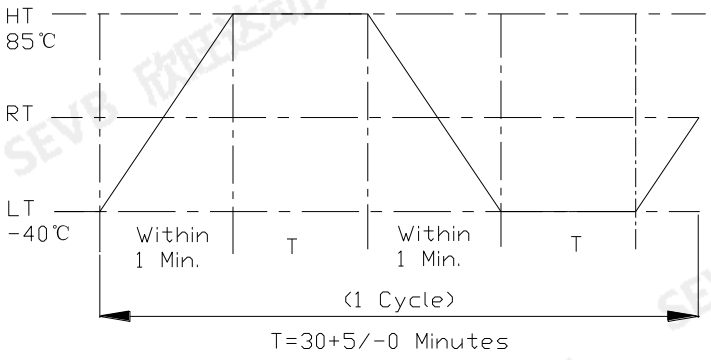
6.3. External Appearances:
The specimens should not have significant disfigurements such as, cracks, fragments, stains, bending and rust.

6.4. High Temperature Test:
The specimens should not be found any defective electrical features after being left in the temperature chamber at ＋85℃±2℃ for 1000±12 hours and left at room temperature and humidity for at least 1 hour.
The frequency's change rate should be within ±2% to the initial measured value, and the current's change rate should be within ±10% to the initial measured value.

6.5. Low Temperature Test:
The specimens should not be found any defective electrical features after being left in the temperature chamber at -40℃±2℃ for 1000±12 hours and left at room temperature for at least 1 hours. The frequency's change rate should be within ±2% to the initial measured value, and the current's change rate should be within ±10% to the initial measured value.

6.6. High Temperature and High Humidity Test:
The specimens should not be found any defective electrical features after being left in the temperature & humidity chamber and set the conditions of up to ＋60±2℃ and 90~95% for 1000±12 hours and left at room temperature for at least 1 hour. The frequency's change rate should be within ±2% to the initial measured value, the current's change rate should be within ±10% to the initial measured value.

6.7. Heat Cycle Test:
The specimens should not be found any defective electrical features after the following process: The item is left at room temperature and humidity for more than 2 hours after the below heat shock cycle is repeated 100 times. The frequency's change rate should be within ±2% to the initial measured value, the current's change rate should be within ±10% to the initial measured value.



6.8. Vibration Test:
After initial value tested, a sample is fixed on the examination stand, and the sample shall be vibrated at the frequency varying uniform from 10 to 200Hz,vibration acceleration 43.12m/s2 (4.4G,however at low frequency the amplitude will be restricted to ensure the maximum amplitude won't exceed 5mm). The characteristics is tested after adding vibration in each direction of front and behind, right and left, upper and lower sides in sweep time 15 minutes (log sweep, round motion),and the sample will be vibrated by 96±2 hours in each direction. The frequency change rate should be less than ±1.5% to the initial value and the current change rate should be less than ±5% to the initial value.

6.9. Shock Test:
Specimen shall be dropped at 980m/S2(100G) peak acceleration and duration in 11ms using the rubber block shock test method, three times in each of three mutually perpendicular directions. And then measurement shall be made and compared with the initial results. (Test board shall be 1.6mm thick. Base material shall be glass fabric base epoxy resin.)

6.10. Drop Test:
Specimen shall be dropped at a height of 100cm onto a hardened concrete surface for 10 times and then visual inspection shall be made.

7. 特别说明【Special Mentions】

7.1. In case of there are doubts about this specification between the user and manufacturer, it shall be aimed at solution of both deliberations.

7.2. It is possible that the product will be corroded by oleic acid.

7.3. Waterproof grade：IP57

8. 包装方式【Packing Specifications】

8.1. MPQ=180pcs.

8.2. The corrugated cardboard be used to stow products, which has 6×10 lattices. Each lattice can load products 3pcs.

8.3. Pack the corrugated carton, then bundle by sellotape, and paste the labels on the box. Each box can stow 180pcs products.

Federal Communications Commission (FCC) Statement. This device complies with part 15 of the FCC Rules. Operation is subject to the following twoconditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received,

including interference that may cause undesired operation. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide Reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one ormore of the following measures:

•Reorient or relocate the receiving antenna.

•Increase the separation between the equipment and receiver.

•Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

•Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications made to this device not expressly approved by Indigo Technologies, Inc. may void the FCC authorization to operate this device.Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

RF exposure statement:

This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The device is installed and operated without restriction.