### SMD RF Manual Tunable Inductor Patent product

### SMD RF Manual Tunable Inductor 1331

◆ Operated frequency: 40~440 MHz
 ◆ Q value:85(no core) , 51(full core)

**♦** Inductance tuning range: 80 to 110(nH)

**♦** Core material: Aluminum

♦ SRF: 700MHz

◆ Operating temperature: -40 ~+125

♦ Rotation times(min): 100



SMD package

High temperature resistance, operating reliably from -40
 ~125 and in other harsh environment

- Hermetic microstrip circuit, reliable and stable over temperature and humidity changes.
- High Q value, linear tunable, available in increasing or decreasing inductance value
- Built with advanced multi-layer processing, high consistence and high reliabili
   -y in manufacturing, contributing to good consistence in tuning resonant circui
- Anti-interference with non-magnetic core, no interference with other devices
- Small size:  $4.2 \times 4.2 \times 3$ (mm)
- Termination leads: RoHS compliant, tin or gold over copper
- Low cost, high performance

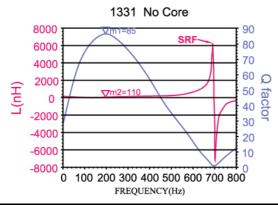
# rantel 1331

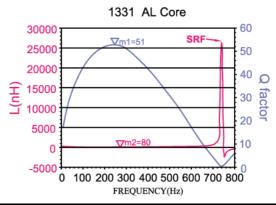
### **Applications**

- Super Regenerative Receiver Module
- RF Impedance Matching
- Tunable Antennas
- Tuning Resonant Circuit
- Tunable Filter
- Phase Shifter
- Phased Array Radar
- MRI(Magnetic Resonance Imaging)
- NMR(Nuclear Magnetic Resonance)
- Crystal Oscillator
- Broadband Antenna

### Characteristic

Typical Q and L vs frequency





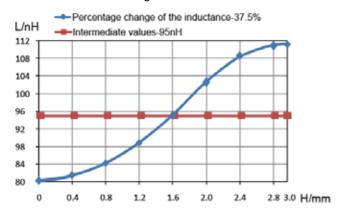
型号	No core		At L max		At L min		Freq at max	Freq Range	No core SRF	Irms
	L(nH)	Qmin	L(nH)	Qmin	L(nH)	Qmin	Q (MHz)	at 1/2 Qmax	min(MHz)	(A)
1331	110	85	110	85	80	51	210	40~440	700	1.7

#### **Notes:**

1. Operating frequency is based on the half of the maximum Q value.

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### Inductance VS The height of the core rotation

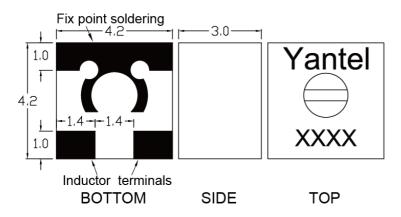


#### **Notes**

- H represents the height of Al core rotation, H max=3mm.
- 2. Inductance changes around the intermediate value.

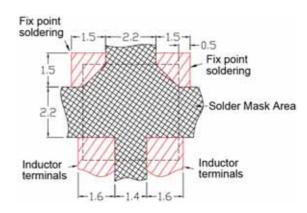
### **Package Outlines**

All dimensions shown in mm unless stated otherwise



### **Recommended Layout**

All dimensions shown in mm unless stated otherwise



### **Tape and Reel Drawing**

