# 2712 SMD RF Manual Tunable Inductor Patent product

# SMD RF Manual Tunable Inductor 2712

♦ Operated frequency: 13~180 MHz Q value: 69(no core), 45(full core)

**Inductance tuning range: 329 to 428(nH)** 

Core material: Aluminum

**SRF: 270MHz** 

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

High Q value, linear tunable, available in increasing or decreasing inductance

Built with advanced multi-layer processing, high consistence and high reliabilit -y in manufacturing, contributing to good consistence in tuning resonant circuit •

Anti-interference with non-magnetic core, no interference with other devices

Small size:  $6 \times 6 \times 2.5$  (mm)

Termination leads: RoHS compliant, tin or gold over copper

Low cost, high performance

### **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)

80

70

60

40

30

20

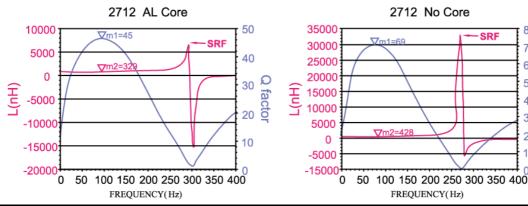
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50 D

- Crystal Oscillator
- **Broadband Antenna**

### Characteristic

Typical Q and L vs frequency



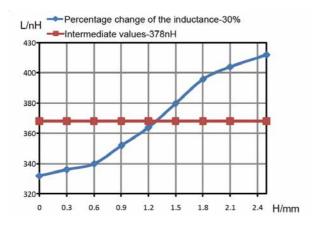
型号	No core		At L max		At L min		Freq at max	Freq Range	No core SRF	Irms
	L(nH)	Qmin	L(nH)	Qmin	L(nH)	Qmin	Q (MHz)	at 1/2 Qmax	min(MHz)	(A)
2712	428	69	428	69	329	45	90	13~180	270	1.2

### **Notes:**

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

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### Inductance VS The height of the core rotation

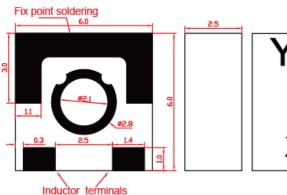


### **Notes**

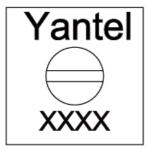
- H represents the height of Al core rotation, H max=2.5mm.
- 2. Inductance changes around the intermediate value.

## **Package Outlines**

All dimensions shown in mm unless stated otherwise



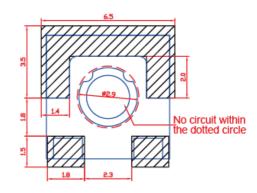
SIDE



TOP

# Recommended Layout

All dimensions shown in mm unless stated otherwise



# **Tape and Reel Drawing**

**BOTTOM** 

