



# HLTGP1210

## FEATURES 特性

1. High Q value and high self-resonant frequency with Ferrite material.  
高Q值高SRF的铁氧体材料.
2. Small chip suitable for surface mounting.  
小尺寸，表面贴装.
3. Tight inductance tolerance and high reliability.  
高精度，高可靠性.

## APPLICATIONS 用途

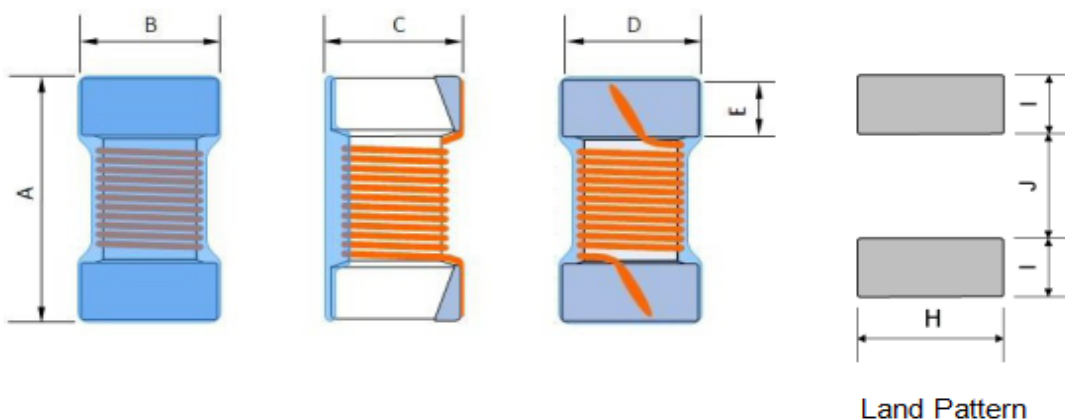
1. Mobile phone TD-LTE/5G communication.  
移动电话，TD-LTE，5G通讯.
2. High frequency circuit in communication equipments.  
高频线路的通讯设备.
3. Bluetooth，W-LAN，Broadband network.  
蓝牙，无线宽带网络.

## PART NUMBERING SYSTEM 品名系统

HLTGP	0420	- 220NH/	J
(1)	(2)	(3)	(4)

- (1) Type 型号 (2) External Dimensions 外形尺寸 (3) Inductance 电感值  
(4) Inductance Tolerance 电感值公差 (J:  $\pm 5\%$  K:  $\pm 10\%$  M:  $\pm 20\%$ )

## SHAPES AND DIMENSIONS 外形尺寸 (Unit:mm)

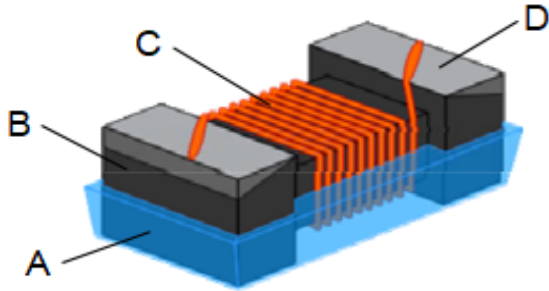


TYPE(型号)	A	B	C	D	E	H	I	J
HLTGP1210	3.65 Max	2.95 Max	2.7 Max	2.4 Typ	0.5 Typ	3.02 ref	1.02 ref	1.78 ref



Product title	Size (LxWxH)	Inductance	Rated current
HLTGP1210	3.65mm Max/2.95mm Max/2.7mm Max	120nH~12uH	450~140mA

## STRUCTURE AND MATERIAL 结构与材料



Part	Components	Material
A	Coating	Ultraviolet epoxy resin
B	Core	Ferrite
C	Wire	Polyurethane enameled copper wire
D	Electrodes	Ag/Ag-Pd with Ni and Sn plating

## ELECTRICAL CHARACTERISTICS 电特性

1. Operating and storage temperature range (individual chip without packing):  $-25^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
2. Storage temperature range (packaging conditions):  $-10^{\circ}\text{C}$  ~  $+40^{\circ}\text{C}$  and RH 70% (Max.)

## TEST AND MEASUREMENT PROCEDURES 测试和测量程序

### 1. Inductance (L)

Test equipment: Keysight E4991B / Agilent 16197A or equivalent  
Test signal: -13dBm or 10mA

### 2. DC Resistance (DCR)

Test equipment: Agilent34420A / Agilent 4338B or equivalent

### 3. Q Factor (Q)

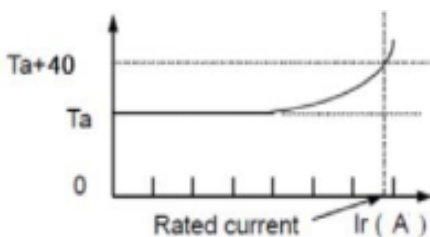
Test equipment: Keysight E4991B / Agilent 16197A or equivalent

### 4. Self-Resonant Frequency (SRF)

Test equipment: Keysight E4991B / Agilent 16197A / HP 8753E or equivalent  
Test signal: -20dBm or 50 mV

### 5. Rated Current (Irms)

Irms is direct electric current as chip surface temperature rose just 20 against chip initial surface temperature ( $T_a$ )





## RECOMMENDED SOLDERING TECHNOLOGIES 推荐的焊接技术

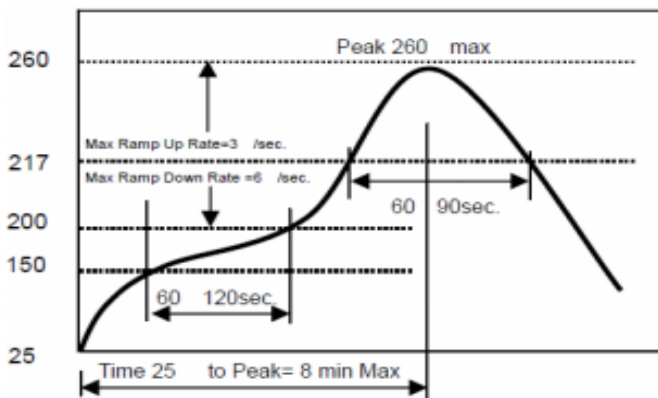
### Re-flowing Profile

Preheat condition: 150~200 /60~120sec. Allowed time above 217C: 60~90sec.

Max temp: 260

Max time at max temp: 10sec Solder paste: Sn/3.0Ag/0.5Cu Allowed

Reflow time: 2 times max



### SPECIFICATION TABLE:

#### HLTGP1210 Series

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Self-resonant Frequency
Symbol	L		Q	Freq.	DCR	I <sub>rms</sub>	SRF (Min)
Units				MHz	Ω	mA	MHz
HLTGP1210-0.12uH/□	120nH	J,K,M	30	25	0.22	450	500
HLTGP1210-0.15uH/□	150nH	J,K,M	30	25	0.40	450	450
HLTGP1210-0.18uH/□	180nH	J,K,M	30	25	0.28	450	400
HLTGP1210-0.22uH/□	220nH	J,K,M	30	25	0.32	450	350
HLTGP1210-0.27uH/□	270nH	J,K,M	30	25	0.36	450	320
HLTGP1210-0.33uH/□	330nH	J,K,M	30	25	0.40	450	300



HLTGP1210-0.39uH/□	390nH	J,K,M	30	25	0.45	450	250
HLTGP1210-0.47uH/□	470nH	J,K,M	30	25	0.50	450	220
HLTGP1210-0.56uH/□	560nH	J,K,M	30	25	0.55	450	180
HLTGP1210-0.68uH/□	680nH	J,K,M	30	25	0.60	450	160
HLTGP1210-0.82uH/□	820nH	J,K,M	30	25	0.65	450	140
HLTGP1210-1uH/□	1uH	J,K,M	30	7.9	0.70	400	120
HLTGP1210-1.2uH/□	1.2uH	J,K,M	30	7.9	0.75	390	100
HLTGP1210-1.5uH/□	1.5uH	J,K,M	30	7.9	0.85	370	85
HLTGP1210-1.8uH/□	1.8uH	J,K,M	30	7.9	0.90	350	80
HLTGP1210-2.2uH/□	2.2uH	J,K,M	30	7.9	1.00	320	75
HLTGP1210-2.7uH/□	2.7uH	J,K,M	30	7.9	1.10	290	70
HLTGP1210-3.3uH/□	3.3uH	J,K,M	30	7.9	1.20	260	60
HLTGP1210-3.9uH/□	3.9uH	J,K,M	30	7.9	1.30	250	55
HLTGP1210-4.7uH/□	4.7uH	J,K,M	30	7.9	1.50	224	50
HLTGP1210-5.6uH/□	5.6uH	J,K,M	30	7.9	1.60	204	45
HLTGP1210-6.8uH/□	6.8uH	J,K,M	30	7.9	1.80	180	40
HLTGP1210-8.2uH/□	8.2uH	J,K,M	30	7.9	2.00	170	35
HLTGP1210-10uH/□	10uH	J,K,M	25	7.9	2.10	150	30
HLTGP1210-12uH/□	12uH	J,K,M	25	7.9	2.50	140	20

: Please specify the inductance tolerance code (J=±5%, K=±10%, M=±20%).