



# Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

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## SMD Wire Wound Ceramic Chip Inductors—1210C series

### A. Electrical specifications:

Part No.	L (nH)	Tol.	Q (Min.)	SRF (MHz) (Min.)	DCR $\Omega$ (Max)	I rms. (mA)	COLOR CODE		
							1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
1210C-4N7	4.7@100MHz	K, J	50@1000MHz	6000	0.06	600	Yellow	Violet	Black
1210C-5N6	5.6@100MHz	K, J	50@1000MHz	5500	0.08	600	Green	Blue	Black
1210C-10N	10@100MHz	K, J, G	60@500MHz	4000	0.06	600	Brown	Black	Brown
1210C-12N	12@100MHz	K, J, G	60@500MHz	3400	0.06	600	Brown	Red	Brown
1210C-15N	15@100MHz	K, J, G	60@500MHz	3200	0.06	600	Brown	Green	Brown
1210C-18N	18@100MHz	K, J, G	60@300MHz	2800	0.06	600	Brown	Gray	Brown
1210C-22N	22@100MHz	K, J, G	60@300MHz	2300	0.08	600	Red	Red	Brown
1210C-27N	27@100MHz	K, J, G	60@300MHz	2000	0.08	600	Red	Violet	Brown
1210C-33N	33@100MHz	K, J, G	60@300MHz	1800	0.08	600	Orange	Orange	Brown
1210C-39N	39@100MHz	K, J, G	60@300MHz	1800	0.08	600	Orange	White	Brown
1210C-47N	47@100MHz	K, J, G	60@300MHz	1600	0.08	600	Yellow	Violet	Brown
1210C-56N	56@100MHz	K, J, G	60@300MHz	1500	0.10	600	Green	Blue	Brown
1210C-68N	68@100MHz	K, J, G	60@300MHz	1300	0.10	600	Blue	Gray	Brown
1210C-82N	82@100MHz	K, J, G	60@300MHz	1200	0.10	600	Gray	Red	Brown
1210C-91N	91@100MHz	K, J, G	60@300MHz	1100	0.10	1000	White	Brown	Brown
1210C-R10	100@100MHz	K, J, G	60@300MHz	1100	0.10	500	Brown	Black	Red
1210C-R12	120@50MHz	K, J, G	60@300MHz	900	0.12	500	Brown	Red	Red
1210C-R15	150@50MHz	K, J, G	60@300MHz	800	0.18	500	Brown	Green	Red
1210C-R18	180@50MHz	K, J, G	60@300MHz	760	0.21	500	Brown	Gray	Red
1210C-R22	220@50MHz	K, J, G	60@300MHz	760	0.27	500	Red	Red	Red
1210C-R27	270@50MHz	K, J, G	50@300MHz	660	0.33	500	Red	Violet	Red
1210C-R33	330@50MHz	K, J, G	50@100MHz	650	0.37	500	Orange	Orange	Red
1210C-R36	360@50MHz	K, J, G	50@100MHz	500	0.63	600	Orange	Blue	Red
1210C-R39	390@50MHz	K, J, G	50@100MHz	600	0.63	500	Orange	White	Red
1210C-R47	470@50MHz	K, J, G	50@100MHz	550	0.69	400	Yellow	Violet	Red
1210C-R56	560@50MHz	K, J, G	50@100MHz	470	0.90	400	Green	Blue	Red
1210C-R68	680@25MHz	K, J, G	50@100MHz	450	1.05	400	Blue	Gray	Red
1210C-R82	820@25MHz	K, J, G	50@100MHz	400	1.45	350	Gray	Red	Red
1210C-1R0	1000@25MHz	K, J, G	45@100MHz	340	2.10	280	Brown	Black	Orange
1210C-1R2	1200@7.96MHz	K, J, G	45@50MHz	320	2.40	250	Brown	Red	Orange
1210C-1R5	1500@7.96MHz	K, J, G	45@50MHz	300	2.70	220	Brown	Green	Orange
1210C-1R8	1800@7.96MHz	K, J, G	45@50MHz	280	3.50	180	Brown	Gray	Orange
1210C-2R2	2200@7.96MHz	K, J, G	45@50MHz	260	3.80	150	Red	Red	Orange
1210C-3R3	3300@27MHz	K, J, G	25@27MHz	140	10	150	Orange	Orange	Orange



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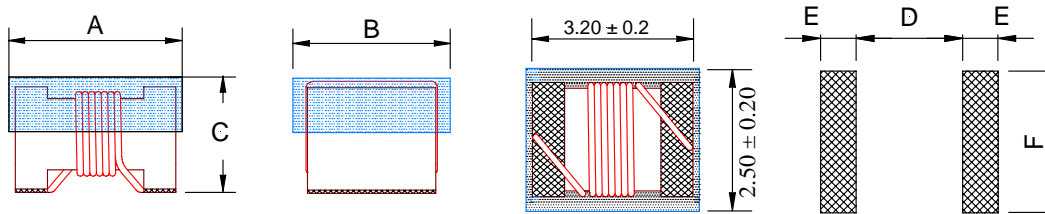
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## SMD Wire Wound Ceramic Chip Inductors—1210C series

### B. Dimensions: (Unit: mm.)

SERIES	A (Max.)	B (Max.)	C (Max.)	D (Max.)	E	F
1210C	3.50	2.80	2.30	2.30	1.02	2.20

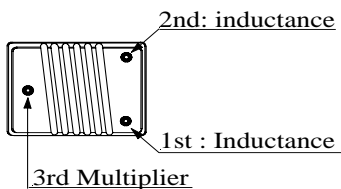
### C. Mechanical drawing:



Land Pattern

### D. General information:

- These parts are marked with 3 color dots. The table at below shows the significance of each color.
- Dots 1 and 2 indicate the inductance in nano-Henries.
- Dots 3 indicate number of zeroes to be added.



Top view

0 = Black	5 = Green
1 = Brown	6 = Blue
2 = Red	7 = Violet
3 = Orange	8 = Gray
4 = Yellow	9 = White



Color code table

### E. General information:

- Tolerance: K:  $\pm 10\%$ , J:  $\pm 5\%$ .
- High Q at high frequency.
- High self-resonance frequency.
- Electrical specifications at 25°C.
- For 15°C Temperature Rise.
- Coil body made of ferrite material in chip form.
- Inductance & Q measured using the HP4291B.
- SRF measured using the HP8720D or HP8753E.
- DCR measured using the 502BC.
- Operating temperature: -40°C TO +125°C.
- Inductance Range:
  - 1210C (Ceramic) Series: 4.7 nH (600mA)~3300 nH (100mA).
  - SRF from 6.0 GHz to 140MHz.
- RoHS** compliant.

### F. Applications:

- \* Pagers. \* Mobile communication units. \* Portable telephone. \* Hybrid.

★ *Special specifications are available for customer's requirement.*



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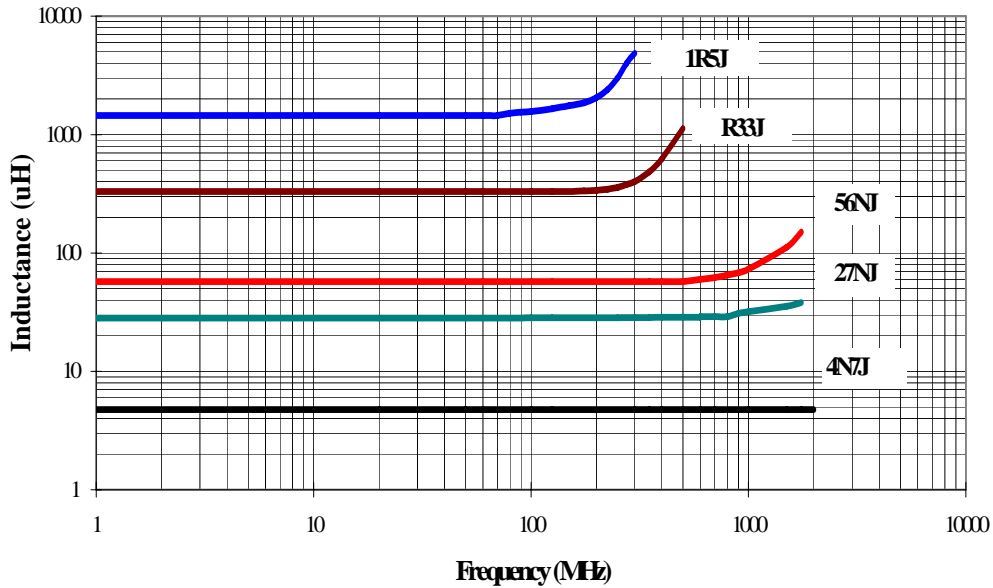
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### G. Characteristic curve:

#### 1. L vs. Frequency:



#### 2. Q vs. Frequency:

