



1210CP Series – SMD WIRE WOUND CERAMIC CHIP INDUCTORS

Rev. A

A. Electrical Specifications:

P/N	L (nH)	L Test Freq. (MHz)	Tol.	Q Min.	Q Test Freq. (MHz)	SRF Min. (MHz)	DCR Max. (Ω)	I rms. Max. (mA)	1 st Color	2 nd Color	3 rd Color
1210CP-4N7_	4.7	100	K, J	50	1000	6000	0.06	600	Yellow	Violet	Black
1210CP-5N6_	5.6	100	K, J	50	1000	5500	0.08	600	Green	Blue	Black
1210CP-10N_	10	100	K, J, G	60	500	4000	0.06	600	Brown	Black	Brown
1210CP-12N_	12	100	K, J, G	60	500	3400	0.06	600	Brown	Red	Brown
1210CP-15N_	15	100	K, J, G	60	500	3200	0.06	600	Brown	Green	Brown
1210CP-18N_	18	100	K, J, G	60	300	2800	0.06	600	Brown	Gray	Brown
1210CP-22N_	22	100	K, J, G	60	300	2300	0.08	600	Red	Red	Brown
1210CP-27N_	27	100	K, J, G	60	300	2000	0.08	600	Red	Violet	Brown
1210CP-33N_	33	100	K, J, G	60	300	1800	0.08	600	Orange	Orange	Brown
1210CP-39N_	39	100	K, J, G	60	300	1800	0.08	600	Orange	White	Brown
1210CP-47N_	47	100	K, J, G	60	300	1600	0.08	600	Yellow	Violet	Brown
1210CP-56N_	56	100	K, J, G	60	300	1500	0.10	600	Green	Blue	Brown
1210CP-68N_	68	100	K, J, G	60	300	1300	0.10	600	Blue	Gray	Brown
1210CP-82N_	82	100	K, J, G	60	300	1200	0.10	600	Gray	Red	Brown
1210CP-91N_	91	100	K, J, G	60	300	1100	0.10	1000	White	Brown	Brown
1210CP-R10_	100	100	K, J, G	60	300	1100	0.10	500	Brown	Black	Red
1210CP-R12_	120	50	K, J, G	60	300	900	0.12	500	Brown	Red	Red
1210CP-R15_	150	50	K, J, G	60	300	800	0.18	500	Brown	Green	Red
1210CP-R18_	180	50	K, J, G	60	300	760	0.21	500	Brown	Gray	Red
1210CP-R22_	220	50	K, J, G	60	300	760	0.27	500	Red	Red	Red
1210CP-R27_	270	50	K, J, G	50	300	660	0.33	500	Red	Violet	Red
1210CP-R33_	330	50	K, J, G	50	100	650	0.37	500	Orange	Orange	Red
1210CP-R36_	360	50	K, J, G	50	100	500	0.63	600	Orange	Blue	Red
1210CP-R39_	390	50	K, J, G	50	100	600	0.63	500	Orange	White	Red
1210CP-R47_	470	50	K, J, G	50	100	550	0.69	400	Yellow	Violet	Red
1210CP-R56_	560	50	K, J, G	50	100	470	0.90	400	Green	Blue	Red
1210CP-R68_	680	25	K, J, G	50	100	450	1.05	400	Blue	Gray	Red
1210CP-R82_	820	25	K, J, G	50	100	400	1.45	350	Gray	Red	Red
1210CP-1R0_	1000	25	K, J, G	45	100	340	2.10	280	Brown	Black	Orange
1210CP-1R2_	1200	7.96	K, J, G	45	50	320	2.40	250	Brown	Red	Orange
1210CP-1R5_	1500	7.96	K, J, G	45	50	300	2.70	220	Brown	Green	Orange
1210CP-1R8_	1800	7.96	K, J, G	45	50	280	3.50	180	Brown	Gray	Orange
1210CP-2R2_	2200	7.96	K, J, G	45	50	260	3.80	150	Red	Red	Orange
1210CP-3R3_	3300	7.96	K, J, G	25	25	140	10	50	Orange	Orange	Orange

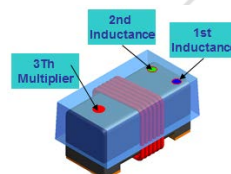
B. Dimensions: mm (Inch)

Series	a	b	c	f	g	h
1210CP	3.42(0.135)	2.8 (0.110)	2.3 (0.091)	2.3 (0.091)	1.02 (0.040)	2.2 (0.087)
Tol.	Max.	Max.	Max.	Typ.	Typ.	Typ.

C. Color coding:

- 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.
- Dot 3 indicates number of zeroes to be added.

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





D. General Information:

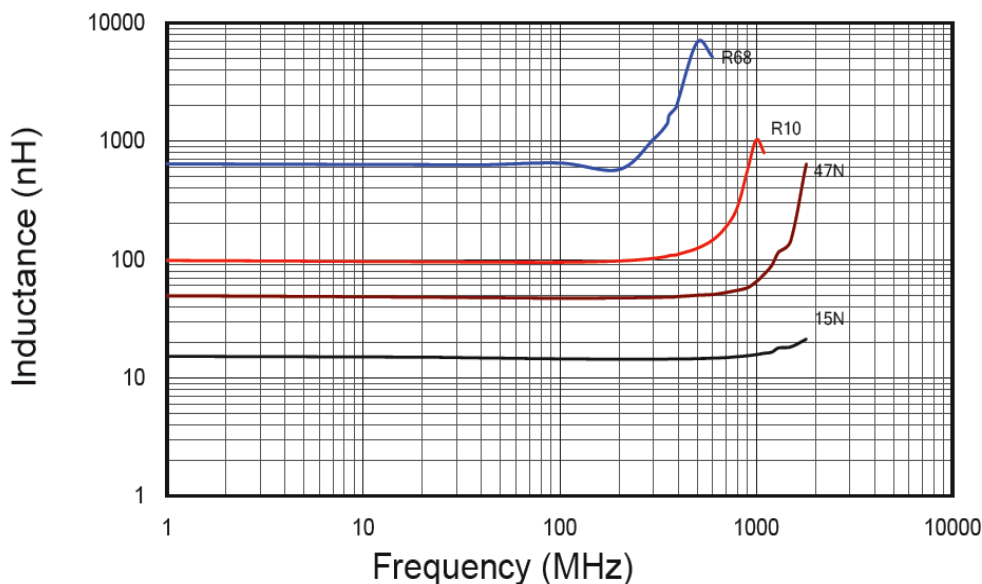
1. P/N: 1210CP-xxx, “1210CP” = Size Type, “xxx” = Inductance, “_” = Tolerance.
2. Tolerance “_”: K: $\pm 10\%$, J: $\pm 5\%$, G: $\pm 2\%$.
3. Small and lightweight surface mounting type.
4. High Q at high frequency & High self-resonance frequency.
5. For 15°C Temperature Rise at 25°C ambient.
6. Inductance & Q measured with HP4291B Impedance Analyzer.
7. SRF measured using the HP8720D or HP8753E Network Analyzer.
8. DCR measured using the 16502 milliohm meter.
9. Operating temperature: -40°C to $+125^{\circ}\text{C}$.
10. This series has no color code due to the size is small.
11. Inductance and Current Range: From 4.7 nH (600mA) to 3300 nH (50 mA)
12. SRF: From 140 MHz to 6000 MHz
13. MSL: Level 1.

E. Applications:

1. Game Consoles
2. Set Top Boxes
3. Cables Modems
4. Computers
5. Mobile Communication Devices (Cell Phones, Radios, etc.)
6. RF Filters

F. Characteristics Curve:

Inductance vs. Frequency





1210CP Series – SMD WIRE WOUND CERAMIC CHIP INDUCTORS

Rev. A

Typical Q vs. Frequency

