

### A. Electrical Specifications:

| P/N         | L (nH) | Tol.    | L Test Freq. (MHz) | Q Min. | Q Test Freq. (MHz) | SRF Min. (GHz) | DCR Max. (Ω) | I rms. Max. (A) | 1 <sup>st</sup> Color | 2 <sup>nd</sup> Color | 3 <sup>rd</sup> Color |
|-------------|--------|---------|--------------------|--------|--------------------|----------------|--------------|-----------------|-----------------------|-----------------------|-----------------------|
| 1210CP-4N7_ | 4.7    | K, J    | 100                | 50     | 1000               | 6.00           | 0.06         | 0.600           | Yellow                | Violet                | Black                 |
| 1210CP-5N6_ | 5.6    | K, J    | 100                | 50     | 1000               | 5.50           | 0.08         | 0.600           | Green                 | Blue                  | Black                 |
| 1210CP-10N_ | 10     | K, J, G | 100                | 60     | 500                | 4.00           | 0.06         | 0.600           | Brown                 | Black                 | Brown                 |
| 1210CP-12N_ | 12     | K, J, G | 100                | 60     | 500                | 3.40           | 0.06         | 0.600           | Brown                 | Red                   | Brown                 |
| 1210CP-15N_ | 15     | K, J, G | 100                | 60     | 500                | 3.20           | 0.06         | 0.600           | Brown                 | Green                 | Brown                 |
| 1210CP-18N_ | 18     | K, J, G | 100                | 60     | 300                | 2.80           | 0.06         | 0.600           | Brown                 | Gray                  | Brown                 |
| 1210CP-22N_ | 22     | K, J, G | 100                | 60     | 300                | 2.30           | 0.08         | 0.600           | Red                   | Red                   | Brown                 |
| 1210CP-27N_ | 27     | K, J, G | 100                | 60     | 300                | 2.00           | 0.08         | 0.600           | Red                   | Violet                | Brown                 |
| 1210CP-33N_ | 33     | K, J, G | 100                | 60     | 300                | 1.80           | 0.08         | 0.600           | Orange                | Orange                | Brown                 |
| 1210CP-39N_ | 39     | K, J, G | 100                | 60     | 300                | 1.80           | 0.08         | 0.600           | Orange                | White                 | Brown                 |
| 1210CP-47N_ | 47     | K, J, G | 100                | 60     | 300                | 1.60           | 0.08         | 0.600           | Yellow                | Violet                | Brown                 |
| 1210CP-56N_ | 56     | K, J, G | 100                | 60     | 300                | 1.50           | 0.10         | 0.600           | Green                 | Blue                  | Brown                 |
| 1210CP-68N_ | 68     | K, J, G | 100                | 60     | 300                | 1.30           | 0.10         | 0.600           | Blue                  | Gray                  | Brown                 |
| 1210CP-82N_ | 82     | K, J, G | 100                | 60     | 300                | 1.20           | 0.10         | 0.600           | Gray                  | Red                   | Brown                 |
| 1210CP-91N_ | 91     | K, J, G | 100                | 60     | 300                | 1.10           | 0.10         | 1.000           | White                 | Brown                 | Brown                 |
| 1210CP-R10_ | 100    | K, J, G | 100                | 60     | 300                | 1.10           | 0.10         | 0.500           | Brown                 | Black                 | Red                   |
| 1210CP-R12_ | 120    | K, J, G | 50                 | 60     | 300                | 0.90           | 0.12         | 0.500           | Brown                 | Red                   | Red                   |
| 1210CP-R15_ | 150    | K, J, G | 50                 | 60     | 300                | 0.80           | 0.18         | 0.500           | Brown                 | Green                 | Red                   |
| 1210CP-R18_ | 180    | K, J, G | 50                 | 60     | 300                | 0.76           | 0.21         | 0.500           | Brown                 | Gray                  | Red                   |
| 1210CP-R22_ | 220    | K, J, G | 50                 | 60     | 300                | 0.76           | 0.27         | 0.500           | Red                   | Red                   | Red                   |
| 1210CP-R27_ | 270    | K, J, G | 50                 | 50     | 300                | 0.66           | 0.33         | 0.500           | Red                   | Violet                | Red                   |
| 1210CP-R33_ | 330    | K, J, G | 50                 | 50     | 100                | 0.65           | 0.37         | 0.500           | Orange                | Orange                | Red                   |
| 1210CP-R36_ | 360    | K, J, G | 50                 | 50     | 100                | 0.50           | 0.63         | 0.600           | Orange                | Blue                  | Red                   |
| 1210CP-R39_ | 390    | K, J, G | 50                 | 50     | 100                | 0.60           | 0.63         | 0.500           | Orange                | White                 | Red                   |
| 1210CP-R47_ | 470    | K, J, G | 50                 | 50     | 100                | 0.55           | 0.69         | 0.400           | Yellow                | Violet                | Red                   |
| 1210CP-R56_ | 560    | K, J, G | 50                 | 50     | 100                | 0.47           | 0.90         | 0.400           | Green                 | Blue                  | Red                   |
| 1210CP-R68_ | 680    | K, J, G | 25                 | 50     | 100                | 0.45           | 1.05         | 0.400           | Blue                  | Gray                  | Red                   |
| 1210CP-R82_ | 820    | K, J, G | 25                 | 50     | 100                | 0.40           | 1.45         | 0.350           | Gray                  | Red                   | Red                   |
| 1210CP-1R0_ | 1000   | K, J, G | 25                 | 45     | 100                | 0.34           | 2.10         | 0.280           | Brown                 | Black                 | Orange                |
| 1210CP-1R2_ | 1200   | K, J, G | 7.96               | 45     | 50                 | 0.32           | 2.40         | 0.250           | Brown                 | Red                   | Orange                |
| 1210CP-1R5_ | 1500   | K, J, G | 7.96               | 45     | 50                 | 0.30           | 2.70         | 0.220           | Brown                 | Green                 | Orange                |
| 1210CP-1R8_ | 1800   | K, J, G | 7.96               | 45     | 50                 | 0.28           | 3.50         | 0.180           | Brown                 | Gray                  | Orange                |
| 1210CP-2R2_ | 2200   | K, J, G | 7.96               | 45     | 50                 | 0.26           | 3.80         | 0.150           | Red                   | Red                   | Orange                |
| 1210CP-3R3_ | 3300   | K, J, G | 7.96               | 25     | 25                 | 0.14           | 10           | 0.050           | Orange                | Orange                | Orange                |

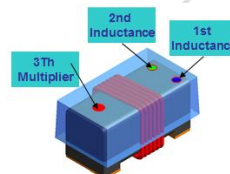
### B. Dimensions: mm (Inch)

| 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  |



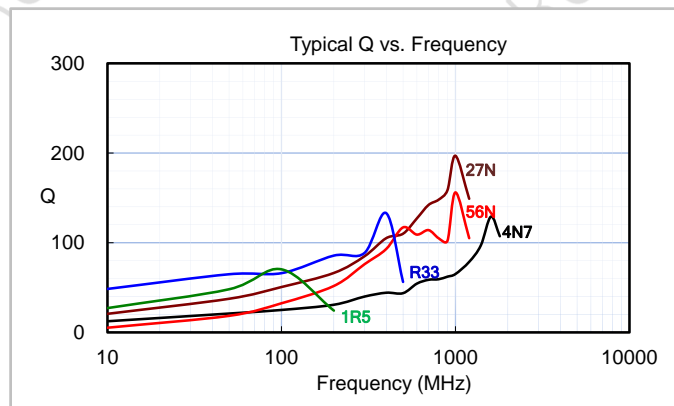
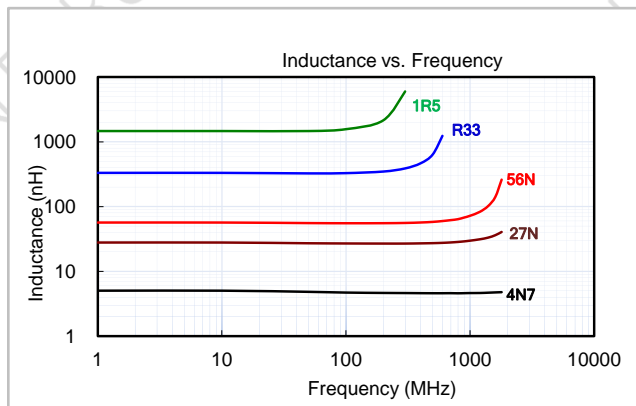
### D. General Information:

1. P/N: 1210CP-xxx\_, “1210CP” = Size Type, “xxx” = Inductance, “\_” = Tolerance.
2. Tolerance “\_”: K= ± 10%, J= ± 5%, G= ± 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°C.
10. This series has no color code due to the size is small.
11. Inductance and Current Range: From 10 nH (1.0 A) to 4700 nH (0.26 A)
12. SRF: From 0.09 GHz to 4.1 GHz
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

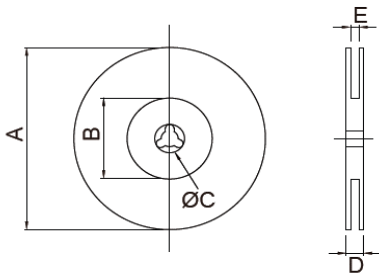
### F. Characteristics Curve:



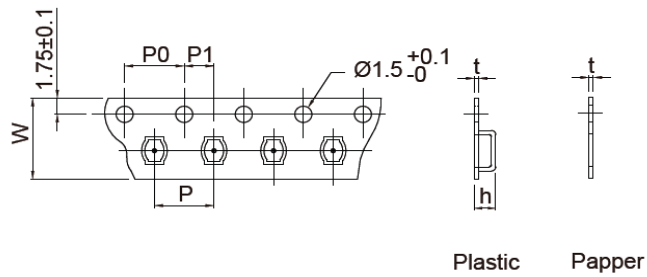
### G. Supplementary Information:

1. Packaging Information

CARRIER TAPE REELS



TAPE DIMENSIONS (mm)



Plastic      Paper

| Series<br>P/N | Reel dimensions (mm) |    |    |      |     | Tape dimensions (mm) |   |    |    |      |      | Parts per reel |     | Quantity per |        |
|---------------|----------------------|----|----|------|-----|----------------------|---|----|----|------|------|----------------|-----|--------------|--------|
|               | A                    | B  | C  | D    | E   | W                    | P | P0 | P1 | h    | t    | 7"             | 13" | Box          | Carton |
| 1210CP        | 180                  | 75 | 13 | 12.5 | 8.5 | 8                    | 4 | 4  | 2  | 2.43 | 0.23 | 1,500          | --- | 7,500        | 45,000 |

2. RoHS Reflow Solder Profile

**Typical RoHS Reflow Profile**

