



# Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

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## SMD Wire Wound Ferrite Chip Inductors—1210F series

### A. Electrical specifications:

Part No.	L (uH)	Tolerance	Q (Min.)	TEST FREQ. (MHz)	SRF (min.) (MHz)	DCR $\Omega$ (Max)	I dc (mA)	COLOR CODE		
								1st	1st	1st
1210F-10N	0.010	K, J	15	100	2500	0.13	450	Brown	Black	Black
1210F-12N	0.012	K, J	17	100	2300	0.14	450	Brown	Red	Black
1210F-15N	0.015	K, J	19	100	2100	0.16	450	Brown	Green	Black
1210F-18N	0.018	K, J	21	100	1900	0.18	450	Brown	Gray	Black
1210F-22N	0.022	K, J	23	100	1700	0.20	450	Red	Red	Black
1210F-27N	0.027	K, J	23	100	1500	0.22	450	Red	Violet	Black
1210F-33N	0.033	K, J	25	100	1400	0.24	450	Orange	Orange	Black
1210F-39N	0.039	K, J	25	100	1300	0.27	450	Orange	White	Black
1210F-47N	0.047	K, J	26	100	1200	0.30	450	Yellow	Violet	Black
1210F-56N	0.056	K, J	26	100	1100	0.33	450	Green	Blue	Black
1210F-68N	0.068	K, J	27	100	1000	0.36	450	Blue	Gray	Black
1210F-82N	0.082	K, J	27	100	900	0.40	450	Gray	Red	Black
1210F-R10	0.10	K, J	28	100	700	0.44	450	Brown	Black	Brown
1210F-R12	0.12	K, J	30	25.2	500	0.22	450	Brown	Red	Brown
1210F-R15	0.15	K, J	30	25.2	450	0.25	450	Brown	Green	Brown
1210F-R18	0.18	K, J	30	25.2	400	0.28	450	Brown	Gray	Brown
1210F-R22	0.22	K, J	30	25.2	350	0.32	450	Red	Red	Brown
1210F-R27	0.27	K, J	30	25.2	320	0.36	450	Red	Violet	Brown
1210F-R33	0.33	K, J	30	25.2	300	0.40	450	Orange	Orange	Brown
1210F-R39	0.39	K, J	30	25.2	250	0.45	450	Orange	White	Brown
1210F-R47	0.47	K, J	30	25.2	220	0.50	450	Yellow	Violet	Brown
1210F-R56	0.56	K, J	30	25.2	180	0.55	450	Green	Blue	Brown
1210F-R68	0.68	K, J	30	25.2	160	0.60	450	Blue	Gray	Brown
1210F-R82	0.82	K, J	30	25.2	140	0.65	450	Gray	Red	Brown
1210F-1R0	1.00	K, J	30	7.96	120	0.70	400	Brown	Black	Red
1210F-1R2	1.20	K, J	30	7.96	100	0.75	390	Brown	Red	Red
1210F-1R5	1.50	K, J	30	7.96	85	0.85	370	Brown	Green	Red
1210F-1R8	1.80	K, J	30	7.96	80	0.90	350	Brown	Gray	Red
1210F-2R2	2.20	K, J	30	7.96	75	1.00	320	Red	Red	Red
1210F-2R7	2.70	K, J	30	7.96	70	1.10	290	Red	Violet	Red
1210F-3R3	3.30	K, J	30	7.96	60	1.20	260	Orange	Orange	Red
1210F-3R9	3.90	K, J	30	7.96	55	1.30	250	Orange	White	Red
1210F-4R7	4.70	K, J	30	7.96	50	1.50	220	Yellow	Violet	Red
1210F-5R6	5.60	K, J	30	7.96	45	1.60	200	Green	Blue	Red
1210F-6R8	6.80	K, J	30	7.96	40	1.80	180	Blue	Gray	Red
1210F-8R2	8.20	K, J	30	7.96	35	2.00	170	Gray	Red	Red
1210F-100	10	K, J	30	2.52	30	2.10	150	Brown	Black	Orange
1210F-120	12	K, J	30	2.52	20	2.50	140	Brown	Red	Orange
1210F-150	15	K, J	30	2.52	20	2.80	130	Brown	Green	Orange
1210F-180	18	K, J	30	2.52	20	3.30	120	Brown	Gray	Orange
1210F-220	22	K, J	30	2.52	20	3.70	110	Red	Red	Orange
1210F-270	27	K, J	30	2.52	20	5.00	80	Red	Violet	Orange
1210F-330	33	K, J	30	2.52	17	5.60	70	Orange	Orange	Orange
1210F-390	39	K, J	30	2.52	16	6.40	65	Orange	White	Orange
1210F-470	47	K, J	30	2.52	15	7.00	60	Yellow	Violet	Orange
1210F-560	56	K, J	30	2.52	13	8.00	55	Green	Blue	Orange
1210F-680	68	K, J	30	2.52	12	9.00	50	Blue	Gray	Orange
1210F-820	82	K, J	30	2.52	11	10.0	45	Gray	Red	Orange
1210F-101	100	K, J	20	0.796	10	10.0	40	Brown	Black	Yellow
1210F-121	120	K, J	20	0.796	10	11.0	70	Brown	Red	Yellow
1210F-151	150	K, J	20	0.796	8	15.0	65	Brown	Green	Yellow
1210F-181	180	K, J	20	0.796	7	17.0	60	Brown	Gray	Yellow
1210F-221	220	K, J	20	0.796	7	21.0	50	Red	Red	Yellow
1210F-271	270	K, J	20	0.796	6	28.0	45	Red	Violet	Yellow
1210F-331	330	K, J	20	0.796	5	34.0	40	Orange	Orange	Yellow
1210F-391	390	K, J	20	0.796	5	42.0	35	Orange	White	Yellow
1210F-471	470	K, J	20	0.796	4	40.0	25	Yellow	Violet	Yellow



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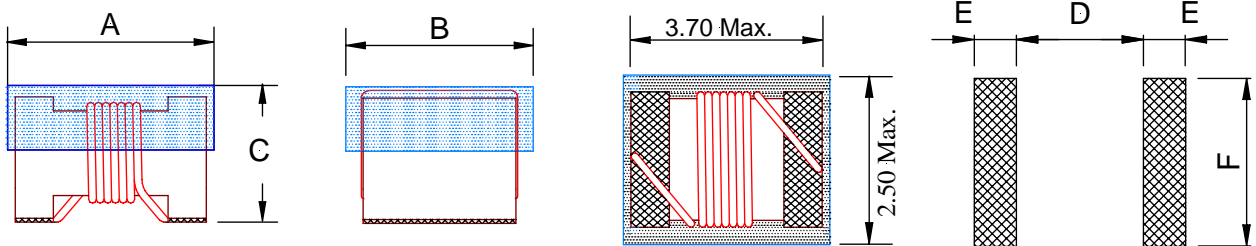
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## SMD Wire Wound Ferrite Chip Inductors—1210F series

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

SERIES	A (Max.)	B (Max.)	C (Max.)	D (Max.)	E	F
1210F	3.70	2.50	2.10	2.30	1.14	2.20

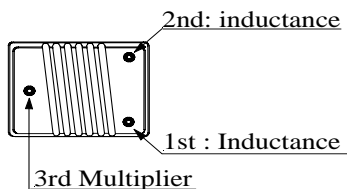
### C. Mechanical drawing:



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:  $\pm 5\%$ .
- Operating temperature:  $-40^{\circ}\text{C}$  TO  $+125^{\circ}\text{C}$ .
- Electrical specifications at  $25^{\circ}\text{C}$ .
- For  $15^{\circ}\text{C}$  Temperature Rise.
- Small and light weight surface mounting type.
- Coil body made of ferrite material in chip form.
- Inductance & Q measured using the HP4291B.
- SRF measured using the HP8720D or HP8753E.
- Rdc measured using the 502BC.
- Inductance & current Range:  
From 0.010 uH (450 mA) to 470 uH (25 mA).
- RoHS** compliant.

### F. Applications:

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

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



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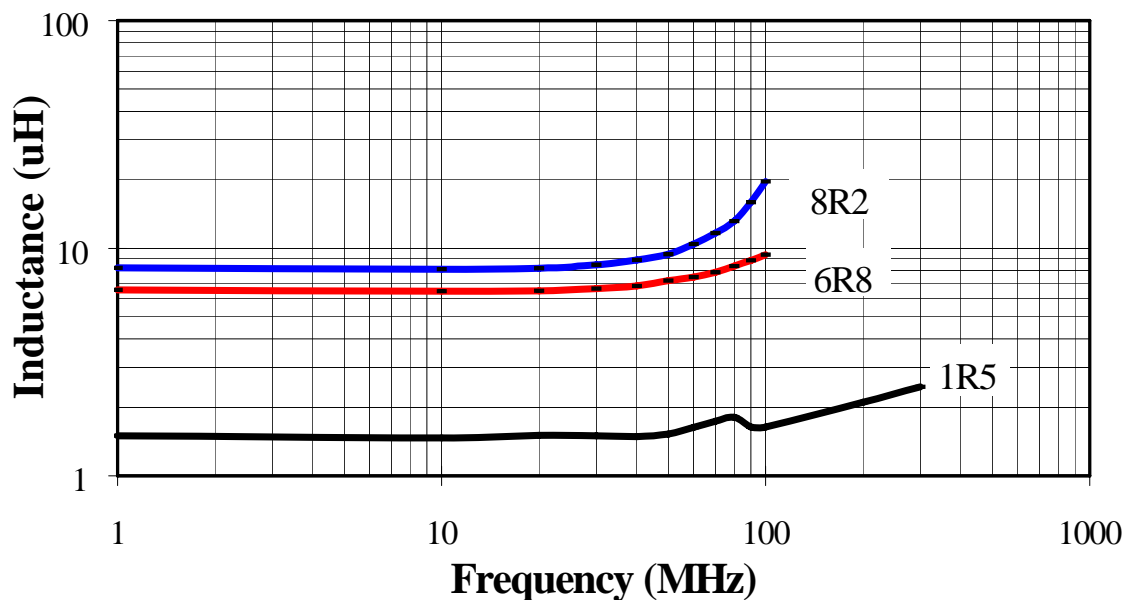
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## SMD Wire Wound Ferrite Chip Inductors—1210F series

### F. Characteristic curve:

#### 1. L vs. Frequency:



#### 2. Q vs. Frequency:

