

# Tunable RF Inductors – 148 Series



With an overall height of only 0.300", these tunable coils are ideal for applications where low-profile circuit boards are essential.

The windings are precision molded in plastic to guarantee a constant winding pitch and a consistent relationship to the printed circuit board. Tuning is done by means of a threaded Carbonyl J core.

Coilcraft **Designer's Kit M304** contains three samples each of the values shown plus all values of the 132 Series of low-profile, high Q fixed inductors. To order, contact Coilcraft or visit <http://order.coilcraft.com>.

**COILCRAFT** ACCURATE  
**PRECISION** REPEATABLE  
MEASUREMENTS  
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Part number <sup>1</sup>	Color	Turns	Inductance (nH) <sup>2</sup>				Q min <sup>4</sup> at L nom	Test freq (MHz)	No core SRF min (MHz)
			no core	min <sup>3</sup>	nom	max <sup>3</sup>			
148-01J12L	Brown	1½	35	38	39	40	88	50	3200
148-02J12L	Red	2½	44	46	52	58	96	50	1560
148-03J12L	Orange	3½	56	60	73	86	106	50	1200
148-04J12L	Yellow	4½	74	77	101	125	112	50	980
148-05J12L	Green	5½	92	96	130	164	112	50	820
148-06J12L	Blue	6½	114	120	170	220	112	50	720
148-07J12L	Violet	7½	142	154	222	290	110	50	620
148-08J12L	Gray	8½	168	176	262	346	106	25	570
148-09J12L	White	9½	198	208	310	410	104	25	490
148-10J12L	Black	10½	237	250	375	500	90	25	450
148-11J12L	Brown	11½	276	290	435	580	84	25	410
148-12J12L	Red	12½	315	338	500	666	66	25	350
148-13J12L	Orange	13½	344	362	540	710	64	25	320

- To order fixed inductance parts without cores, eliminate the "J12", e.g. 148-13L.
- Inductance readings taken at test frequency on an Agilent/HP 4342A Q meter with 1/2" long, 16 AWG tinned copper wire soldered along the leads and bent at 90°, 1/4" from standoffs. Inductance values at 50 MHz calculated from C<sub>p</sub> readings. Inductance values at 25 MHz read at standard Q meter frequency (blue line).
- L min measured with core halfway out top of form. L max measured with core centered in the windings.
- Q readings taken on an Agilent/HP 4342A Q meter with 1/2" long, 16 AWG tinned copper wire soldered along the leads and bent at 90°, 1/4" from standoffs.
- Core material: Carbonyl J. Core length: 3/8".
- Operating temperature range -40°C to +85°C.
- Electrical specifications at 25°C.

**Resistance to soldering heat:** Wave solder only. Recommended maximum board surface temperature of 168°C (334°F) for no more than three seconds. Pre-heating is recommended to minimize time over the solder nozzle.



**Weight:** 0.7 – 1.2 g  
**Terminations:** Tin-silver over copper  
**Packaging:** 30 per tube



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