

**NEW!**

# Low Profile Chip Inductors 0402FL (1005)



- Developed for use in cellular applications:  
As a filter element in bandstop and low pass filters  
As a one pole filter or RF choke in cellular bands
- Can also be used for ground-to-ground isolation
- Equally effective on-board or modular
- Maximum height reduced to 0.55 mm – 10% lower profile than competitive products
- Ferrite construction for high current handling
- Ideal for use in both mobile and infrastructure equipment

Part number <sup>1</sup>	Inductance <sup>2</sup> ±5% (nH)	Impedance typ (Ohms)		SRF typ <sup>3</sup> (MHz)	DCR max <sup>4</sup> (Ohms)	Irms (mA)		
		900 MHz	1.7 GHz			at 25°C <sup>5</sup>	at 85°C <sup>6</sup>	at 125°C <sup>7</sup>
0402FL-200XJR_	20	95	170	2950	0.065	1300	900	680
0402FL-360XJR_	36	185	365	2250	0.085	1050	900	550
0402FL-560XJR_	56	285	610	1900	0.110	900	820	470
0402FL-770XJR_	77	380	825	1800	0.125	850	770	440
0402FL-101XJR_	100	525	1240	1575	0.145	820	750	430
0402FL-121XJR_	120	650	1450	1950	0.165	810	740	420
0402FL-151XJR_	150	770	1600	1300	0.180	730	670	380
0402FL-161XJR_	160	900	2000	1850	0.235	630	580	330
0402FL-181XJR_	180	990	2050	1800	0.200	690	630	360
0402FL-221XJR_	220	1280	3300	1120	0.290	580	530	300
0402FL-271XJR_	270	1825	3625	975	0.300	560	510	290
0402FL-331XJR_	330	2330	3100	875	0.475	400	370	210
0402FL-391XJR_	390	3150	3115	820	0.560	360	330	190
0402FL-421XJR_	420	3325	3540	800	0.570	360	330	190
0402FL-471XJR_	470	4460	3160	750	0.800	330	300	170
0402FL-561XJR_	560	5025	3150	700	0.970	290	260	150

1. When ordering, please specify **packaging** code:

**0402FL-181XJRW**

**Termination:** R = RoHS compliant matte tin over nickel over silver-platinum-glass frit.

**Packaging:** W = 7" machine-ready reel. EIA-481 punched paper tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

Y = 7" machine-ready reel. EIA-481 punched paper tape (10000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge)

- Inductance measured at 7.9 MHz using a Coilcraft SMD-F test fixture and Coilcraft-provided correlation pieces with an Agilent/HP 4286 impedance analyzer.
  - SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.
  - DCR measured on Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.
  - Current that cause 40°C rise at 25°C.
  - Maximum current that can be applied at 85°C.
  - Maximum current that can be applied at 125°C.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Core material** Ferrite

**Environmental** RoHS compliant without exemption, halogen free

**Terminations** RoHS compliant matte tin over nickel over silver-platinum-glass frit.

**Weight** 0.9 – 1.1 mg

**Ambient temperature** -40°C to +125°C with Irms current

**Maximum part temperature** +140°

**Storage temperature** Component: -40°C to +140°C.

Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Temperature Coefficient of Inductance (TCL)** +25 to +150 ppm/°C

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

One per billion hours / one billion hours, calculated per Telcordia SR-332

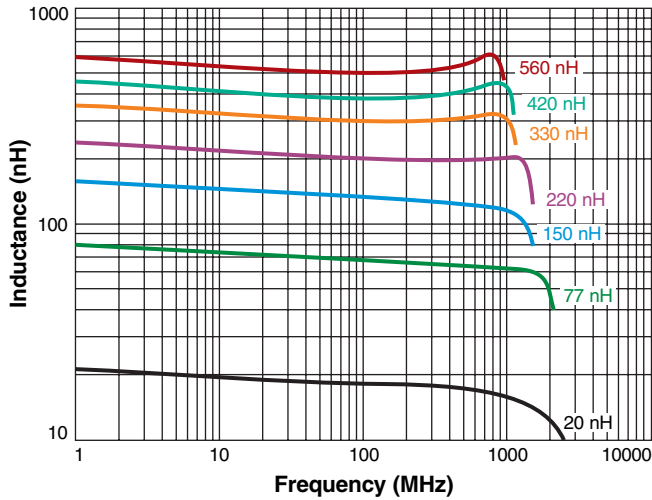
**Packaging** 2000 per 7" reel or 10000 per 7" reel. Paper tape: 8 mm wide, 0.68 mm thick, 4 mm pocket spacing

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

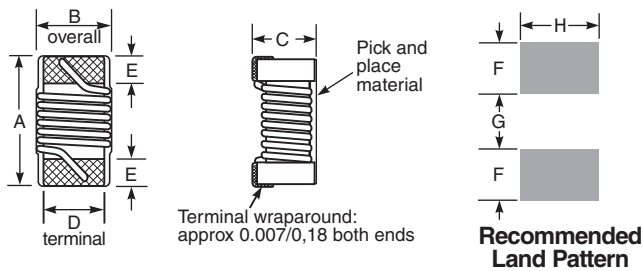
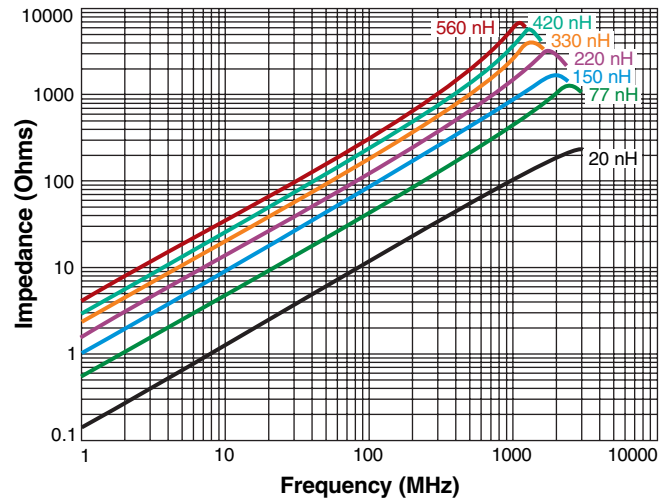


# Chip Inductors – 0402FL Series

## Typical L vs Frequency



## Typical Z vs Frequency



Amax	Bmax	Cmax	D	E	F	G	H	
0,044	0,028	0,022	0,022	0,007	0,014	0,025	0,026	inches
1,11	0,72	0,55	0,55	0,18	0,36	0,635	0,66	mm



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