

# MULTILAYER SHIELDED FERRITE CHIP INDUCTORS



RESISTORS • CAPACITORS • COILS • DELAY LINES

## MLI SERIES



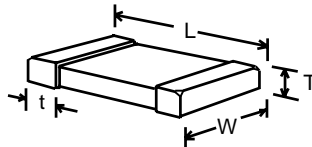
Term.W is  
RoHS  
compliant  
& 260°C  
compatible



- Magnetically self shielded, eliminates crosstalk & coupling between conductors. Excellent for high density placement.
- Suitable for either flow or reflow soldering
- 0.047uH to 33uH, 5mA to 450mA, 13MHz to 680MHz SRF
- Operating temperature range: -25°C to +105°C
- Standard inductance tolerance is ±10% (20% if <0.1uH)
- Mini 0402 & 0201 sizes in development

RCD's MLI inductors feature a monolithic multilayer construction. The structure involves no windings/welds/solder joints, ensuring highest reliability and performance levels over a wide temperature and humidity range. Operating temperature is -55° to +125°C (derate current by 2.5%/°C above 85°C). Applications include noise/EMI elimination for I/O lines in a wide range of computer, telecom, medical, and audio applications.

Ind. (µH)	MLI 0603					MLI 0805					ML1008					MLI 1206				
	Test Freq. (MHz)	Q Min.	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)	Test Freq. (MHz)	Q Min.	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)	Test Freq. (MHz)	Q Min.	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)	Test Freq. (MHz)	Q Min.	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)
0.047	50	10	260	0.30	50	50	15	320	0.20	300	-	-	-	-	-	50	20	320	0.15	300
0.068	50	10	250	0.30	50	50	15	280	0.20	300	-	-	-	-	-	50	20	280	0.25	300
0.082	50	10	245	0.30	50	50	15	255	0.20	300	-	-	-	-	-	-	-	-	-	-
0.10	25	15	240	0.50	50	25	20	235	0.30	250	25.2	30	680	0.21	450	25	20	235	0.25	250
0.12	25	15	205	0.50	50	25	20	220	0.30	250	25.2	30	650	0.22	400	25	20	220	0.30	250
0.15	25	15	180	0.60	50	25	20	200	0.40	250	25.2	30	530	0.25	400	25	20	200	0.30	250
0.18	25	15	165	0.60	50	25	20	185	0.40	250	25.2	30	520	0.29	370	25	20	185	0.40	250
0.22	25	15	150	0.80	50	25	20	170	0.50	250	25.2	30	390	0.30	370	25	20	170	0.40	250
0.27	25	15	136	0.80	50	25	20	150	0.50	250	25.2	30	330	0.33	350	25	20	150	0.50	250
0.33	25	15	125	0.85	35	25	20	145	0.55	250	25.2	30	310	0.39	350	25	20	145	0.50	250
0.39	25	15	110	1.0	35	25	25	135	0.65	200	25.2	30	290	0.40	320	25	25	135	0.60	250
0.47	25	15	105	1.35	35	25	25	125	0.65	200	25.2	30	260	0.44	300	25	25	125	0.60	200
0.56	25	15	95	1.55	35	25	25	115	0.75	150	25.2	30	230	0.49	250	25	25	115	0.70	200
0.68	25	15	80	1.70	35	25	25	105	0.80	150	25.2	30	200	0.52	250	25	25	105	0.80	150
0.82	25	15	75	2.10	35	25	25	100	1.00	150	25.2	30	180	0.61	200	25	25	100	0.90	150
1.0	10	30	70	0.60	25	10	45	75	0.40	50	7.96	30	150	0.75	150	10	45	75	0.40	100
1.2	10	30	60	0.80	25	10	45	65	0.50	50	7.96	30	140	0.87	120	10	45	65	0.50	100
1.5	10	30	55	0.80	25	10	45	60	0.50	50	7.96	30	130	1.00	110	10	45	60	0.50	50
1.8	10	30	50	0.95	25	10	45	55	0.60	50	7.96	30	120	1.10	100	10	45	55	0.50	50
2.2	10	30	45	1.15	15	10	45	50	0.65	30	7.96	30	105	1.30	100	10	45	50	0.60	50
2.7	10	30	40	1.35	15	10	45	45	0.75	30	7.96	30	90	1.40	100	10	45	45	0.60	50
3.3	10	30	38	1.55	15	10	45	41	0.80	30	7.96	30	80	1.60	80	10	45	41	0.70	50
3.9	10	30	36	1.70	15	10	45	38	0.90	30	7.96	30	75	1.70	80	10	45	38	0.80	50
4.7	10	30	33	2.10	15	10	45	35	1.00	30	7.96	30	70	1.90	80	10	45	35	0.90	50
5.6	4.0	30	22	1.55	15	4.0	45	32	0.90	15	7.96	30	60	2.20	80	4.0	50	32	0.70	25
6.8	4.0	30	20	1.70	15	4.0	45	29	1.00	15	7.96	30	55	2.40	70	4.0	50	29	0.80	25
8.2	4.0	30	18	2.10	15	4.0	45	26	1.10	15	7.96	30	50	2.60	50	4.0	50	26	0.90	25
10	2.0	30	17	2.55	15	2.0	45	24	1.15	15	2.52	25	30	2.20	30	2.0	50	24	1.0	25
12	2.0	30	15	2.75	15	2.0	45	22	1.25	15	2.52	25	27	2.50	20	2.0	50	22	1.05	15
15	1.0	20	14	1.70	15	1.0	30	19	0.80	5	2.52	25	23	2.80	20	1.0	35	19	0.70	5.0
18	1.0	20	13	1.85	15	1.0	30	18	0.90	5	2.52	25	22	3.20	20	1.0	35	18	0.70	5.0
22	1.0	-	-	-	-	1.0	30	16	1.10	5	2.52	25	21	3.60	20	1.0	35	16	0.90	5.0
27	1.0	-	-	-	-	1.0	30	14	1.15	5	2.52	25	19	4.30	15	1.0	35	14	0.90	5.0
33	0.4	-	-	-	-	0.4	30	13	1.25	5	2.52	25	17	4.70	15	0.4	35	13	1.05	5.0



### DIMENSIONS

Type MLI	L (Length)	W (Width)	T Max. (Thickness)	t (Term. Width)
0603	.063 ±.006 [1.6 ±.15]	.031±.006 [0.8 ±.15]	.037 [0.95]	.012 ±.008 [0.3 ±.2]
0805	.079 ±.008 [2.0 ±.2]	.049 ±.008 [1.25 ±.2]	.057 [1.45]	.020 ±.012 [0.5 ±.3]
1008	.098 ±.008 [2.5 ±.2]	.079 ±.008 [2.0 ±.2]	.073 [1.9]	.020 ±.012 [0.5 ±.3]
1206	.126 ±.008 [3.2 ±.2]	.063 ±.008 [1.6 ±.2]	.055 [1.4]	.020 ±.012 [0.5 ±.3]

### P/N DESIGNATION:

MLI1206 - 220 - K T W

RCD Type

Induc. Code (uH): 2 signif. figures and multiplier (R10=0.1uH, 1R0=1uH, 100=10uH, 101=100uH). Below 0.1uH, use 'R' as decimal point (R01, R068, etc.)

Tolerance Code: M=20% (std<0.1uH), K=10% (std ≥.1uH), J=5%, S=±0.3nH

Packaging: B=Bulk, T=Tape & Reel (4K pcs/7" reel 0603 & 0805, 2K 1008, and 3K 1206, 10Kpc 13" reels also avail.)

Termination: W= Lead-free (100% Sn)