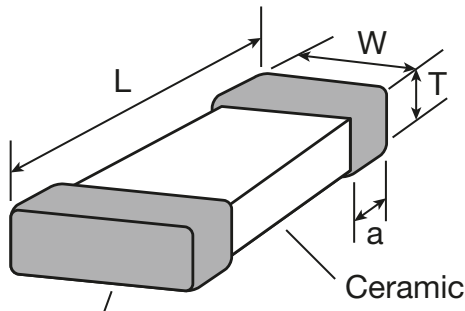


Low Value Multilayer Chip Inductors

Features

- Low inductance — down to 1.0 nH
- Suitable for high frequency applications
- Monolithic structure
- Excellent solderability for either flow or reflow soldering

Dimensions



Termination finish is 100% matte Tin (Sn) over Nickel (Ni)

Unit: mm (inch)

SERIES	L	W	T	a
LMCI 0201 (0201)	0.60 ± 0.03 (0.024 ± .0012)	0.30 ± 0.03 (0.012 ± .0012)	0.3 ± 0.03 (0.012 ± .0012)	0.15 ± 0.05 (0.006 ± .002)
LMCI 1005 (0402)	1.0 ± 0.05 (0.040 ± .002)	0.5 ± 0.05 (0.020 ± .001)	0.5 ± 0.05 (0.014 ± .002)	0.25 ± 0.1 (0.007 ± .004)
LMCI 1608 (0603)	1.6 ± 0.15 (0.064 ± .006)	0.8 ± 0.15 (0.032 ± .006)	0.8 ± 0.15 (0.032 ± .006)	0.3 ± 0.2 (0.012 ± .008)
LMCI 2012 (0805)	2.0 ± 0.2 (0.080 ± .008)	1.25 ± 0.2 (0.050 ± .008)	0.85 ± 0.2 (0.034 ± .008) 1.00 + 0.2 - 0.3 (0.040 ± .008)	0.5 ± 0.3 (0.020 ± .012)

Operating Temperature Range	-40 to +85° C -55~ +125° C (1005 only)
Temperature Coefficient of Inductance (TCL)	±250 PPM
Storage Temperature Range	-10 to +40° C

How To Order

LMCI 1608

Series

3N9

Inductance Value
3N9: 3.9nH
10N: 10nH
R10: 100nH

K

Tolerance
J: ± 5%
K: ± 10%
M: ± 20%
S: ± 0.3nH

T

Packaging
T: Tape

NOTE: All LMCI series have Ceramic core.

Standard termination finish for this product is 100% matte Tin (Sn)

Please Note: Venkel offers Engineering Kits for this product. See page 117 for details.

All components in this section are RoHS compliant per the EU directives and definitions.

Low Value Multilayer Chip Inductors

LMCI 0201 SERIES (0.6 x 0.3mm) - Electrical Characteristics

Part Number	Inductance (at 100MHz)		Q min. (MHz)		S.R.F. (MHz) min.	R _{DC} (Ω) max.	I _{DC} (mA) max.	Q'ty/Reel (pcs)
	L (nH)	Tolerance	100	800				
LMCI0201-1N0S T	1.0	S	4	15	20,000	0.12	300	15,000
LMCI0201-1N2S T	1.2	S	4	15	20,000	0.12	300	15,000
LMCI0201-1N5S T	1.5	S	4	15	20,000	0.13	300	15,000
LMCI0201-1N8S T	1.8	S	4	15	20,000	0.14	300	15,000
LMCI0201-2N2S T	2.2	S	4	15	20,000	0.18	300	15,000
LMCI0201-2N7S T	2.7	S	4	14	20,000	0.19	300	15,000
LMCI0201-3N3 □T	3.3	S, K	4	14	20,000	0.24	200	15,000
LMCI0201-3N9 □T	3.9	S, K	4	14	18,000	0.28	190	15,000
LMCI0201-4N7 □T	4.7	S, K	4	14	9,600	0.35	180	15,000
LMCI0201-5N6 □T	5.6	S, K	4	14	9,000	0.40	170	15,000
LMCI0201-6N8 □T	6.8	J, K	4	14	8,000	0.45	160	15,000
LMCI0201-8N2 □T	8.2	J, K	4	14	7,000	0.55	150	15,000
LMCI0201-10N □T	10.0	J, K	4	14	6,700	0.65	150	15,000
LMCI0201-12N □T	12.0	J, K	4	14	6,400	0.75	120	15,000
LMCI0201-15N □T	15.0	J, K	4	14	6,000	0.95	110	15,000
LMCI0201-18N □T	18.0	J, K	4	13	5,300	1.20	100	15,000
LMCI0201-22N □T	22.0	J, K	4	13	5,000	1.80	100	15,000
LMCI0201-27N □T	27.0	J, K	4	12	3,600	2.00	90	15,000
LMCI0201-33N □T	33.0	J, K	4	12	3,000	2.30	85	15,000

- NOTE**
- L, Q; HP4291A at 100MHz (Test fixture: HP16193A)
 - S.R.F: Self-resonance Frequency; HP8753C (Test fixture: HP16193A)
 - R_{DC}: DC Resistance; VP-2811A
 - I_{DC}: Allowable Current
 - □ Inductance Tolerance (S = ±0.3nH, J = ±5%, K = ± 10%, M = ± 20%)

LMCI 1005 SERIES (0402) - Electrical Characteristics

Part Number	Inductance (at 100MHz)		Q min. (MHz)		S.R.F. (MHz) min.	R _{dc} (Ω) max.	I _{dc} (mA) max.	Q'ty/Reel (pcs)
	L (nH)	Tolerance	100	800 *500				
LMCI1005-1N0S T	1.0	S	8	20	8,000	0.12	300	10,000
LMCI1005-1N2S T	1.2	S	8	20	8,000	0.12	300	10,000
LMCI1005-1N5S T	1.5	S	8	22	6,000	0.13	300	10,000
LMCI1005-1N8S T	1.8	S	8	22	6,000	0.14	300	10,000
LMCI1005-2N2S T	2.2	S	8	22	6,000	0.16	300	10,000
LMCI1005-2N7S T	2.7	S	8	22	5,800	0.17	300	10,000
LMCI1005-3N3K T	3.3	K	8	22	5,800	0.19	300	10,000
LMCI1005-3N9K T	3.9	K	8	22	4,000	0.22	300	10,000
LMCI1005-4N7K T	4.7	K	8	22	4,000	0.24	300	10,000
LMCI1005-5N6K T	5.6	K	8	22	3,900	0.28	300	10,000
LMCI1005-6N8 □T	6.8	J, K	8	21	3,900	0.34	250	10,000
LMCI1005-8N2 □T	8.2	J, K	8	21	3,500	0.38	250	10,000
LMCI1005-10N □T	10.0	J, K	8	21	3,200	0.45	250	10,000
LMCI1005-12N □T	12.0	J, K	8	20	2,700	0.55	250	10,000
LMCI1005-15N □T	15.0	J, K	8	20	2,300	0.60	250	10,000
LMCI1005-18N □T	18.0	J, K	8	20	2,000	0.70	200	10,000
LMCI1005-22N □T	22.0	J, K	8	20	1,800	0.80	200	10,000
LMCI1005-27N □T	27.0	J, K	8	17	1,500	0.90	200	10,000
LMCI1005-33N □T	33.0	J, K	8	17	1,200	1.0	200	10,000
LMCI1005-39N □T	39.0	J, K	8	16	1,100	1.20	150	10,000
LMCI1005-47N □T	47.0	J, K	8	15	1,000	1.30	150	10,000
LMCI1005-56N □T	56.0	J, K	8	—	700	1.40	150	10,000
LMCI1005-68N □T	68.0	J, K	8	—	700	1.40	150	10,000
LMCI1005-82N □T	82.0	J, K	8	—	600	1.60	100	10,000
LMCI1005-R10 □T	100.0	J, K	8	—	600	1.60	100	10,000

- NOTE**
- L, Q; HP4291A at 100MHz (Test fixture: HP16193A)
 - S.R.F: Self-resonance Frequency; HP8753C (Test fixture: HP16193A)
 - R_{dc}: DC Resistance; VP-2811A
 - I_{dc}: Allowable Current
 - □ Inductance Tolerance (S = ±0.3nH, J = ±5%, K = ± 10%, M = ± 20%)

Low Value Multilayer Chip Inductors

LMCI 1608 SERIES (0603) - Electrical Characteristics

Part Number	Inductance (at 100MHz)		Q min. (MHz)		S.R.F. (MHz) min.	Rbc (Ω) max.	Ibc (mA) max.	Q'ty/Reel (pcs)
	L (nH)	Tolerance	100	800 *500/**50				
LMCI1608-1N2S T	1.2	S	8	40	8,000	0.10	300	4,000
LMCI1608-1N5S T	1.5	S	8	36	6,000	0.10	300	4,000
LMCI1608-1N8S T	1.8	S	8	38	6,000	0.10	300	4,000
LMCI1608-2N2S T	2.2	S	8	28	6,000	0.12	300	4,000
LMCI1608-2N7S T	2.7	S	10	28	6,000	0.12	300	4,000
LMCI1608-3N3 □T	3.3	S, K	10	26	5,900	0.14	300	4,000
LMCI1608-3N9 □T	3.9	S, K	10	28	5,600	0.16	300	4,000
LMCI1608-4N7 □T	4.7	S, K	10	28	4,200	0.18	300	4,000
LMCI1608-5N6 □T	5.6	S, K	10	28	4,000	0.20	300	4,000
LMCI1608-6N8 □T	6.8	J, K	10	26	3,800	0.24	300	4,000
LMCI1608-8N2 □T	8.2	J, K	10	26	3,500	0.26	300	4,000
LMCI1608-10N □T	10.0	J, K	12	32	2,800	0.28	300	4,000
LMCI1608-12N □T	12.0	J, K	12	32	2,500	0.32	300	4,000
LMCI1608-15N □T	15.0	J, K	12	32	2,200	0.34	300	4,000
LMCI1608-18N □T	18.0	J, K	12	32	2,000	0.36	300	4,000
LMCI1608-22N □T	22.0	J, K	12	34	1,600	0.42	300	4,000
LMCI1608-27N □T	27.0	J, K	12	34	1,400	0.46	300	4,000
LMCI1608-33N □T	33.0	J, K	12	28	1,200	0.58	300	4,000
LMCI1608-39N □T	39.0	J, K	12	24	1,100	0.64	300	4,000
LMCI1608-47N □T	47.0	J, K	12	24	900	0.80	300	4,000
LMCI1608-56N □T	56.0	J, K	12	24	900	0.86	300	4,000
LMCI1608-68N □T	68.0	J, K	12	*24	700	0.86	300	4,000
LMCI1608-82N □T	82.0	J, K	12	*22	600	0.95	300	4,000
LMCI1608-R10 □T	100.0	J, K	12	*20	600	1.00	300	4,000
LMCI1608-R12 □T	120.0	J, K	8	-	500	1.20	300	4,000
LMCI1608-R15 □T	150.0	J, K	8	-	500	1.20	300	4,000
LMCI1608-R18 □T	180.0	J, K	8	-	400	1.30	300	4,000
LMCI1608-R22 □T	220.0	J, K	8	-	400	1.50	300	4,000
LMCI1608-R27 □T	270.0	J, K	8	-	400	1.50	300	4,000

- *NOTE**
- L, Q; HP4191A at 100MHz (Test fixture: HP16092A)
 - S.R.F: Self-resonance Frequency; HP8753C (Test fixture: HP16091A)
 - Rbc: DC Resistance; VP-2811A
 - Ibc: Allowable Current
 - □ Inductance Tolerance (S = ±0.3nH, J = ±5%, K = ± 10%, M = ± 20%)

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LMCI 2012 SERIES (0805) - Electrical Characteristics

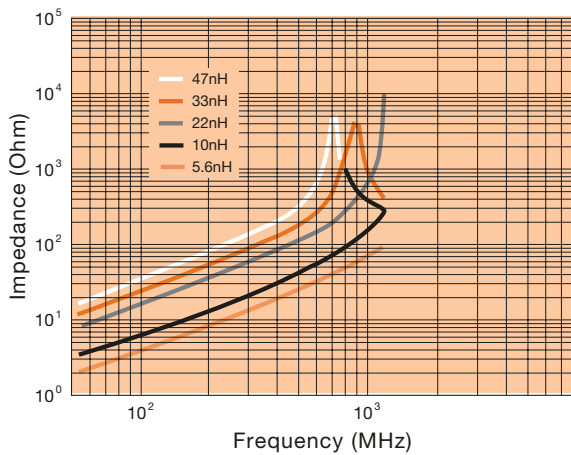
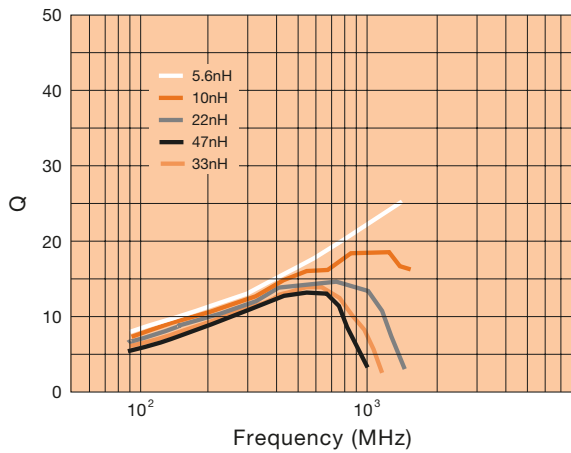
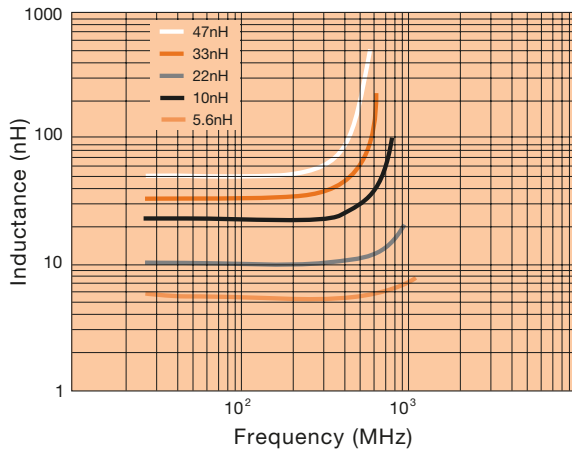
Part Number	Inductance			Q min. (MHz)				S.R.F. (MHz) min.	R _{dc} (Ω) max.	I _{dc} (mA) max.	Q'ty/Reel (pcs)
	L (nH)	(MHz)	Tolerance	25	50	100	800				
LMCI2012-F1N5ST	1.5	100	S	—	—	13	40	4,000	0.10	300	4,000
LMCI2012-F1N8ST	1.8	100	S	—	—	13	45	4,000	0.10	300	4,000
LMCI2012-F2N2ST	2.2	100	S	—	—	13	48	4,000	0.10	300	4,000
LMCI2012-F2N7ST	2.7	100	S	—	—	12	36	4,000	0.10	300	4,000
LMCI2012-F3N3□T	3.3	100	J, S, K, M	—	—	13	56	4,000	0.13	300	4,000
LMCI2012-F3N9□T	3.9	100	J, S, K, M	—	—	15	54	4,000	0.15	300	4,000
LMCI2012-F4N7□T	4.7	100	J, S, K, M	—	—	15	50	3,500	0.20	300	4,000
LMCI2012-F5N6□T	5.6	100	J, S, K, M	—	—	15	53	3,200	0.23	300	4,000
LMCI2012-F6N8□T	6.8	100	J, K, M	—	—	15	51	2,800	0.25	300	4,000
LMCI2012-F8N2□T	8.2	100	J, K, M	—	—	15	53	2,400	0.28	300	4,000
LMCI2012-F10N□T	10.0	100	J, K, M	—	—	16	45	2,100	0.30	300	4,000
LMCI2012-F12N□T	12.0	100	J, K, M	—	—	16	48	1,900	0.35	300	4,000
LMCI2012-F15N□T	15.0	100	J, K, M	—	—	17	48	1,600	0.40	300	4,000
LMCI2012-F18N□T	18.0	100	J, K, M	—	—	17	43	1,500	0.45	300	4,000
LMCI2012-F22N□T	22.0	100	J, K, M	—	—	17	47	1,400	0.50	300	4,000
LMCI2012-F27N□T	27.0	100	J, K, M	—	—	18	38	1,300	0.55	300	4,000
LMCI2012-F33N□T	33.0	100	J, K, M	—	—	18	35	1,200	0.60	300	4,000
LMCI2012-F39N□T	39.0	100	J, K, M	—	—	18	40	1,000	0.65	300	4,000
LMCI2012-F47N□T	47.0	100	J, K, M	—	—	18	33	900	0.70	300	3,000
LMCI2012-F56N□T	56.0	100	J, K, M	—	—	19	31	800	0.75	300	3,000
LMCI2012-F68N□T	68.0	100	J, K, M	—	—	19	28	700	0.80	300	3,000
LMCI2012-F82N□T	82.0	100	J, K, M	—	—	20	9	600	0.90	300	3,000
LMCI2012-FR10□T	100	100	J, K, M	—	13	18	—	600	1.00	300	3,000
LMCI2012-FR12□T	120	50	J, K, M	—	15	19	—	500	1.30	250	3,000
LMCI2012-FR15□T	150	50	J, K, M	—	16	20	—	500	1.50	250	3,000
LMCI2012-FR18□T	180	50	J, K, M	—	17	20	—	400	1.80	250	3,000
LMCI2012-FR22□T	220	50	J, K, M	—	17	20	—	400	2.00	200	3,000
LMCI2012-FR27□T	270	25	J, K, M	13	18	—	—	380	2.50	200	3,000
LMCI2012-FR33□T	330	25	J, K, M	15	18	—	—	380	3.00	150	3,000
LMCI2012-FR39□T	390	25	J, K, M	15	18	—	—	330	3.50	150	3,000
LMCI2012-FR47□T	470	25	J, K, M	13	16	—	—	300	4.00	100	3,000

NOTE — The "F" in the LMCI 2012 series is an internal material code and is the exact same material as all other sizes.

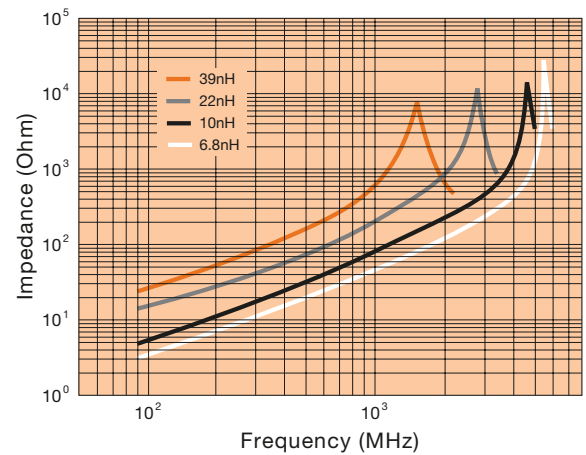
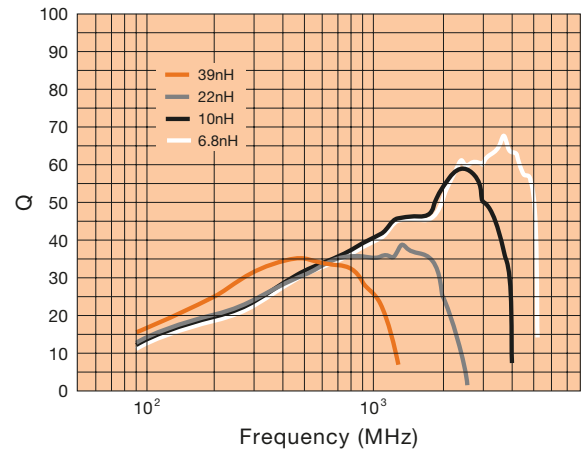
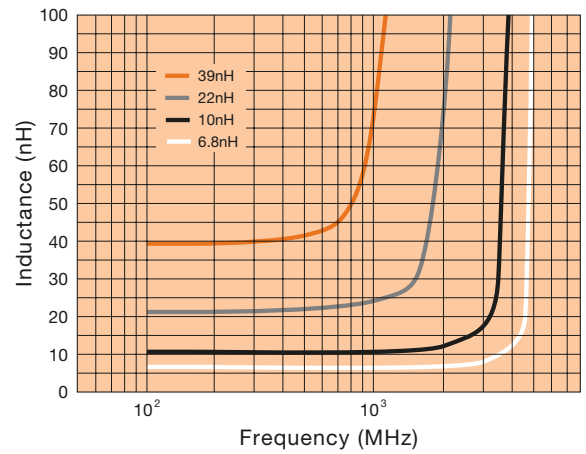
- NOTE**
- L, Q; HP4191A at 100MHz (Test fixture: HP16092A)
 - S.R.F: Self-resonance Frequency; HP8753C (Test fixture: HP16091A)
 - R_{dc}: DC Resistance; VP-2811A
 - I_{dc}: Allowable Current
 - □ Inductance Tolerance (S = ±0.3nH, J = ±5%, K = ± 10%, M = ± 20%)

Low Value Multilayer Chip Inductors

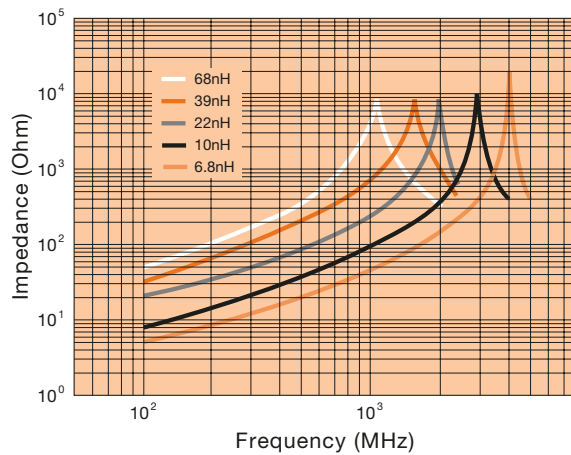
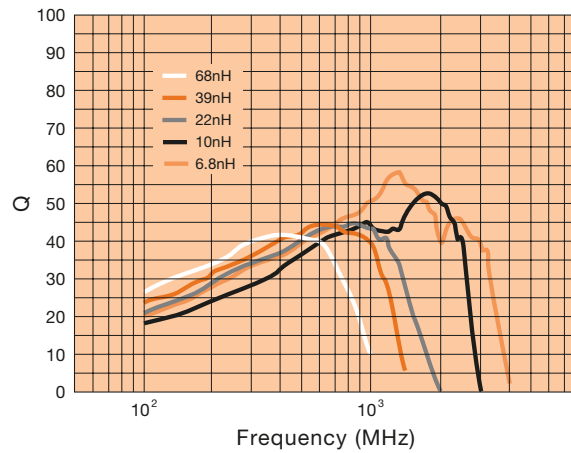
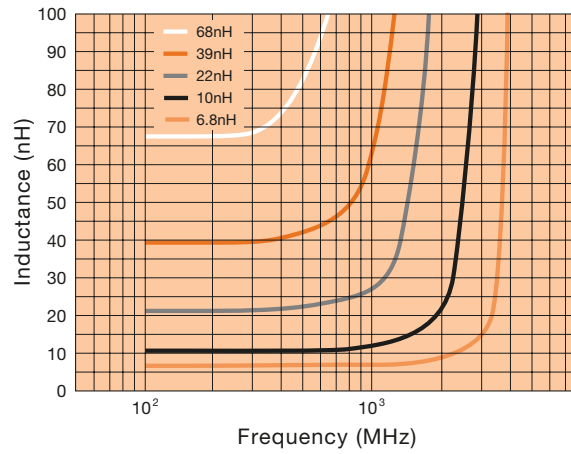
1005



1608



2012



All components in this section are RoHS compliant per the EU directives and definitions.