

## MCO, MCL & WCL Chip Inductors



# Eaton's high Q chip inductors provide new EMC options for RF wireless circuits



Eaton's broad selection of high Q chip inductors provides design flexibility in many RF wireless applications in multilayer and wire-wound configurations.

### Product description

Eaton's broad selection of high Q chip inductors provides design flexibility in many RF wireless applications in multilayer and wire-wound configurations, with industry sizes 0603 to 1206 (MCO family), 0402 to 0805 (MCL family), and 1008 and 1210 (WCL family).

Eaton high Q chip inductors provide noise filtering, impedance matching, and resonance setting in today's high-frequency wireless circuits for consumer, energy, industrial, computing, and medical applications. Each product family offers a small footprint, high Q performance, tight inductance tolerance, and high current handling capability.

The MCO and MCL chip inductors feature a multilayer, low-profile construction while the WCL series comes in a wire-wound design. All products comprise eco-friendly materials and are quality-assured and certified to global manufacturing standards.

### Markets and Applications:

- **Consumer:** Gaming consoles, high tech appliances, mobile phones, wearables
- **Computing:** PCs, IoT, servers, databases
- **Energy:** Smart meters, solar, wind
- **Medical:** Homecare, hospital care, diagnostics
- **Industrial:** Industrial connectivity, logistics, automation, remote monitoring, testing/data collection

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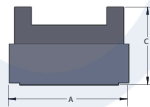
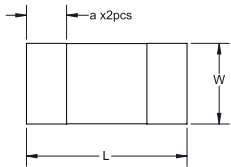
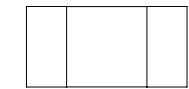
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## Product specifications

Family name	Inductance range (uH)	I Rated current range (mA)	DCR maximum range(Ω) @ +25 °C	Typical SRF range (MHz)	Size L x W x H maximum (mm)
<b>Multilayer</b>					
MCL1005	0.001 - 0.360	50 - 400	0.10 - 7.50	300 - 10000	1.15 x 0.65 x 0.65 (0402 [1005 metric])
MCL1608V1	0.047 - 12	60 - 150	0.12 - 1.25	15 - 260	1.8 x 1.0 x 1.0 (0603 [1608 metric])
MCL1608V2	0.001 - 0.470	150 - 500	0.05 - 3.60	250 - 10000	1.8 x 1.0 x 1.0 (0603 [1608 metric])
MCL2012V1	0.047 - 22	50 - 350	0.20 - 0.75	16 - 320	2.2 x 1.4 x 1.1 (0805 [2012 metric])
MCL2012V2	0.0015 - 0.47	300 - 500	0.10 - 2	200 - 6000	2.2 x 1.4 x 1.1 (0805 [2012 metric])

Family name	Inductance range (uH)	I Rated current range (mA)	DCR maximum range(Ω) @ +25 °C	Typical SRF range (MHz)	Size L x W x H maximum (mm)
<b>Multilayer</b>					
MCQ1V1608	0.047 - 3.9	15 - 50	0.20 - 1.30	35 - 260	1.8 x 1.0 x 1.0 (0603 [1608 metric])
MCQ1V2012	0.047 - 4.7	30 - 300	0.15 - 0.90	35 - 320	2.2 x 1.4 x 1.1 (0805 [2012 metric])
MCQ1V3216	0.047 - 4.7	25 - 300	0.15 - 0.65	35 - 320	3.4 x 1.8 x 1.1 (1206 [3216 metric])

Family name	Inductance range (uH)	I Rated current range (mA)	DCR maximum range(Ω) @ +25 °C	Typical SRF range (MHz)	Size L x W x H maximum (mm)
<b>Wire wound</b>					
WCL2520	0.12 - 220	20 - 800	0.15 - 18	2.5 - 850	2.92 x 2.792 x 2.10 (1008 [2520 metric])
WCL3225	0.12 - 560	30 - 450	0.2 - 28	1.5 - 850	3.5 x 2.9 x 2.25 (1210 [3225 metric])



Part number	L	W	T	a
MCL1005-xxx-R	1.0 ±0.15	0.50 ±0.15	0.50 ±0.15	0.25 ±0.10
MCL1608V1-xxx-R	1.6 ±0.20	0.80 ±0.20	0.80 ±0.20	0.30 ±0.20
MCL1608V2-xxx-R	1.6 ±0.20	0.80 ±0.20	0.80 ±0.20	0.30 ±0.20
MCL2012V1-xxx-R	2.0 ±0.20	1.2 ±0.20	0.90 ±0.20	0.50 ±0.30
MCL2012V2-xxx-R	2.0 ±0.20	1.2 ±0.20	0.90 ±0.20	0.50 ±0.30

Part number	L	W	T	a
MCQ1V1608-xxx-R	1.6 ±0.20	0.80 ±0.20	0.80 ±0.20	0.30 ±0.20
MCQ1V2012-xxx-R	2.0 ±0.20	1.2 ±0.20	0.90 ±0.20	0.50 ±0.30
MCQ1V3216-xxx-R	3.2 ±0.20	1.6 ±0.20	0.90 ±0.20	0.50 ±0.30

Part number	A	B	C	D	E
WCL2520-xxx-R	2.92 max	2.79 max	2.10 max	0.50 ref	2.0 ref
WCL3225-xxx-R	3.5 max	2.9 max	2.25 max	0.50 ref	2.1 ref

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