

Why Choose Murata's Inductors?

1. Only manufacturer able to offer all three inductor styles, (Wirewound, Film and Multilayer).
2. Vertically integrated materials and experienced R&D team leads to superior finished products.
3. Excellent manufacturing process and superior design structure offers attractive cost and delivery.

Power Inductors - For DC/DC Converters

Advantages:

Wire Wound Inductors

- Offers stable DC Bias Characteristics using Murata's advanced winding technology and manufacturing expertise
- Utilizing a more simple design structure than our competitors, Murata is able to offer improved cost effectiveness
- Unique magnetically shielded construction minimize magnetic coupling

Multilayer Inductors

- Unique internal layer technology which increases power efficiency and extends battery life in portable products
- Compact size for low profile applications with several models having less than 1mm max height
- As a leader in multilayer layer processing technology, Murata can offer very cost effective pricing

Murata Part Number	Case Size (LxWxT) mm typ. (mm max.)	Appearance	L: 0.47uH - 22uH															
			Temperature Rise Current I _{dc1} / Saturation Current I _{dc2}															
			DCR															
			0.47uH	1.0uH	1.5uH	2.2uH	2.7uH	3.3uH	4.7uH	5.6uH	6.8uH	8.2uH	10uH	12uH	15uH	18uH	22uH	
Wirewound	**LQH2MC_02	2.0x1.6x0.9 (2.2x1.8x0.95)	---	485mA 0.3Ω	445mA 0.4Ω	425mA 0.48Ω	---	375mA 0.6Ω	300mA 0.8Ω	280mA 0.9Ω	255mA 1.0Ω	235mA 1.1Ω	225mA 1.2Ω	210mA 1.4Ω	200mA 1.6Ω	190mA 1.8Ω	185mA 2.1Ω	
	LQH2MC_52	2.0x1.6x0.65 (2.2x1.8x0.7)	---	595mA 0.25Ω	540mA 0.33Ω	500mA 0.42Ω	---	360mA 0.74Ω	335mA 0.91Ω	---	285mA 1.23Ω	---	200mA 2.27Ω	---	---	---	---	
	**LQH3NP_G0	3.0x3.0x0.9 (3.2x3.2x1.0)	---	1.525/1.65A 0.08Ω	1.47/1.3A 0.1Ω	1.27/1.25A 0.14Ω	---	1.13/0.85A 0.18Ω	0.925/0.8A 0.26Ω	---	0.71/0.65A 0.45Ω	---	0.63/0.5A 0.57Ω	---	0.475/0.37A 0.91Ω	---	0.43/0.34A 1.1Ω	
	**LQH3NP_J0 NEW	3.0x3.0x1.1 (3.2x3.2x1.2)	---	1.62/1.65A 0.040Ω	1.50/1.20A 0.055Ω	1.46/1.15A 0.069Ω	---	1.27/0.95A 0.105Ω	1.12/0.78A 0.130Ω	---	850/700mA 0.210Ω	---	710/560mA 0.300Ω	---	590/440mA 0.440Ω	---	510/350mA 0.600Ω	
	**LQH3NP_M0	3.0x3.0x1.4 (3.2x3.2x1.5)	---	2.05/1.4A 0.044Ω	---	1.6/1.25A 0.073Ω	---	1.45/1.0A 0.092Ω	1.25/0.88A 0.13Ω	---	1.0/0.82A 0.2Ω	---	0.87/0.55A 0.26Ω	---	---	---	0.65/0.41A 0.51Ω	
	LQH32P_N0	3.2x2.5x1.55 (3.5x2.7x1.7)	2.55/3.4A 0.03Ω	2.05/2.3A 0.045Ω	1.75/1.75A 0.057Ω	1.6/1.55A 0.076Ω	---	1.2/1.25A 0.12Ω	1.0/1.0A 0.18Ω	---	0.85/0.85A 0.24Ω	---	0.7/0.75A 0.38Ω	---	---	---	0.45/0.5A 0.81Ω	
	**LQH44P_J0 NEW	4.0x4.0x1.1 (4.2x4.2x1.2)	---	1.53/2.00A 0.048Ω	1.38/1.60A 0.061Ω	1.23/1.32A 0.074Ω	---	1.00/0.90A 0.088Ω	980/840mA 0.117Ω	---	860/720mA 0.143Ω	---	790/560mA 0.207Ω	---	610/430mA 0.385Ω	---	550/400mA 0.480Ω	
	LQH44P_P0	4.0x4.0x1.65 (4.2x4.2x1.8)	---	2.45/2.95A 0.036Ω	---	1.8/2.5A 0.059Ω	---	1.77/2.1A 0.078Ω	1.7/1.7A 0.096Ω	---	1.34/1.4A 0.144Ω	---	1.17/1.15A 0.192Ω	---	---	---	0.79/0.8A 0.444Ω	
	*LQH55P_R0	5.87x5.2x1.85 (6.07x5.4x2.0)	---	*2.9/2.6A 0.021Ω	---	2.5/2.1A 0.031Ω	2.15/2.07A 0.04Ω	2.0/2.0A 0.044Ω	1.75/1.4A 0.06Ω	---	1.45/1.2A 0.087Ω	---	1.25/1.0A 0.11Ω	---	---	---	0.85/0.67A 0.26Ω	
	**LQH6PP_43 NEW	6.0x6.0x4.3 (6.2x6.2x4.5)	---	4.30/7.50A 0.009Ω	4.15/6.50A 0.010Ω	4.10/5.60A 0.014Ω	---	3.80/4.50A 0.016Ω	3.20/4.00A 0.020Ω	---	2.85/3.20A 0.028Ω	---	2.60/2.60A 0.044Ω	---	2.20/2.20A 0.065Ω	---	1.55/1.70A 0.108Ω	
	**LQH88P_38 NEW	8.0x8.0x3.8 (8.2x8.2x4.0)	---	8.00/11.20A 0.006Ω	7.10/8.50A 0.008Ω	6.40/8.00A 0.009Ω	---	5.00/7.00A 0.013Ω	4.20/6.00A 0.017Ω	---	3.80/4.50A 0.022Ω	---	3.15/3.60A 0.029Ω	---	2.45/3.00A 0.041Ω	---	2.25/2.70A 0.066Ω	
	Multilayer	LQM21P_C0	2.0x1.25x0.5 (2.2x1.45x0.55)	1.1A 0.12Ω	0.8A 0.19Ω	0.7A 0.26Ω	0.6A 0.34Ω	---	---	---	---	---	---	---	---	---	---	---
LQM2MP_G0		2.0x1.6x0.9 (2.15x1.75x1.0)	1.6A 0.06Ω	1.4A 0.085Ω	1.2A 0.11Ω	1.2A 0.11Ω	---	1.2A 0.12Ω	1.1A 0.14Ω	---	---	---	---	---	---	---	---	
LQM2HP_G0		2.5x2.0x0.9 (2.7x2.15x1.0)	1.8A 0.04Ω	1.6A 0.055Ω	1.5A 0.07Ω	1.3A 0.08Ω	---	1.2A 0.1Ω	1.1A 0.11Ω	---	---	---	---	---	---	---	---	
LQM2HP_J0		2.5x2.0x1.1 (2.7x2.2x1.2)	---	1.5A 0.09Ω	---	1.0A 0.12Ω	---	1.0A 0.12Ω	---	---	---	---	---	---	---	---	---	
LQM31P_C0		3.2x1.6x0.5 (3.4x1.8x0.55)	1.3A 0.085Ω	1.1A 0.14Ω	1.0A 0.17Ω	0.9A 0.25Ω	---	---	---	---	---	---	---	---	---	---	---	
LQM31P_00		3.2x1.6x0.85 (3.4x1.8x0.95)	1.4A 0.07Ω	1.2A 0.12Ω	1.0A 0.14Ω	0.9A 0.19Ω	---	0.8A 0.24Ω	0.7A 0.30Ω	---	---	---	---	---	---	---	---	

I_{dc1}: 40 degree C self-temperature rise; I_{dc2}: 30% inductance change

^ Multilayer power inductor's current rating is based on a self-temperature rise of up to 40°C.

Note:

* LQH55P has a value of 1.2uH instead of 1.0uH.

** LQH2MC_02 is available up to 82uH

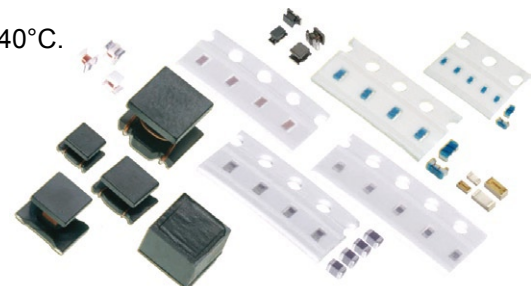
** LQH3NP_G0 is available up to 250uH

** LQH3NP_M0 is available up to 100uH

** LQH44P_J0 is available up to 47uH

** LQH6PP_43/LQH88P_38 is available up to 100uH

*** LQW18C_00 (1.6x0.8x0.8mm) is available for Choke use. L: 4.9nH up to 650nH I_{dc}:300mA up to 1700mA.













For the Ultimate Variety of Inductor Solutions, Think Murata!

RF Inductors - For High Frequency Range

Advantages:

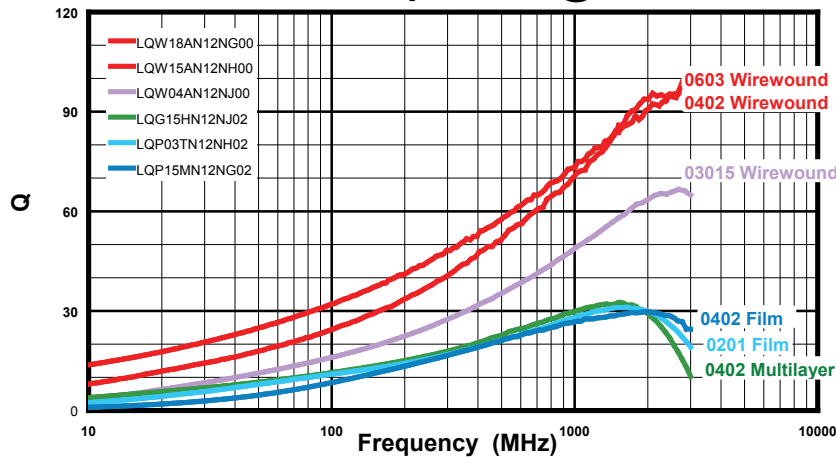
- Murata is the only manufacturer able to offer all three RF inductor styles, (Wirewound, Film and Multilayer)
- Offering the greatest flexibility within all 3 styles for High Q, tight tolerance and a wide range of inductance values
- The largest global supplier of RF inductors offering excellent delivery and attractive pricing

Murata Part Number	Case Size (LxW) EIA	Case Size (LxWxT) mm typ. (mm max.)	Appearance	*Inductance Range (nH) Tolerance				**Q (Typ.)		SRF (@ L)
				1nH	10nH	100nH	1000nH	900MHz	1.8 GHz	
Wire Wound	LQW04A_00	03015		1.1-9.1nH C:±0.2/D:0.5nH	10-33nH H:±3/J:5%			65 @ 1.1nH	79 @ 1.1nH	20 GHz @ 1.1nH
	LQW15A_00	0402		1.5-6.2nH B:±0.1/C:0.2/D:0.5nH		6.8-120nH G:±2/H:3/J:5%		60 @ 1.5nH	90 @ 1.5nH	18 GHz @ 1.5nH
	LQW15A_10	0402		1.3-5.6nH C:±0.2/D:0.5nH				95 @ 1.3nH	145 @ 1.3nH	16 GHz @ 1.3nH
	LQW18A_00	0603		2.2-9.5nH C:±0.2/D:0.5nH		10-470nH G:±2/J:5%		84 @ 2.2nH	127 @ 2.2nH	6 GHz @ 2.2nH
	LQW18A_10	0603		2.2-8.2nH C:±0.2/D:0.5nH	10-33nH G:±2/J:5%			160 @ 2.2nH	280 @ 2.2nH	18 GHz @ 2.2nH
	LQW21H_00	0805					470-2200nH J:±5%	N/A	N/A	0.62 GHz @ 470nH
Film	LQP02T_02	01005		0.4-5.6nH S:±0.3nH	6.2-10nH J:±5%			16 @ 0.4nH	26 @ 0.4nH	6 GHz @ 0.4nH
	LQP03T_02 <i>NEW</i>	0201		0.6-3.9nH B:±0.1/C:0.2nH	4.3-27nH H:±3/J:5%	33nH-120nH J:±5%		71 @ 0.6nH	127 @ 0.6nH	6 GHz @ 0.6nH
	LQP15M_02	0402		1-3.9nH W:±0.05/B:0.1nH	4.3-9.1nH B:±0.1nH	10-33nH G:±2%		55 @ 1.0nH	73 @ 1.0nH	6 GHz @ 1.0nH
Multilayer	LQG15H_02	0402		1-6.2nH S:±0.3nH		6.8-270nH J:±5%		34 @ 1.0nH	51 @ 1.0nH	10 GHz @ 1.0nH

* Inductance Frequency test: LQW04/15/18: 100MHz, LQP02/03/15:500MHz, LQG15:100MHz.

** Detail L and Q-f characteristics can be checked thru our S-Parameter and Impedance library on the WEB link below.

Q Value comparison @ 12nH



Additional advantages of using Murata are:

- All Inductors are RoHS compliant
- Design evaluation kits are easily obtained through Murata's sales representatives
- Superior engineering support tools
- **Free Design Tools Software:** (Simulation, S-Parameters & Impedance) available online at www.murata.com/products/design_support

Example: S-Parameters & Impedance library Impedance Chart

