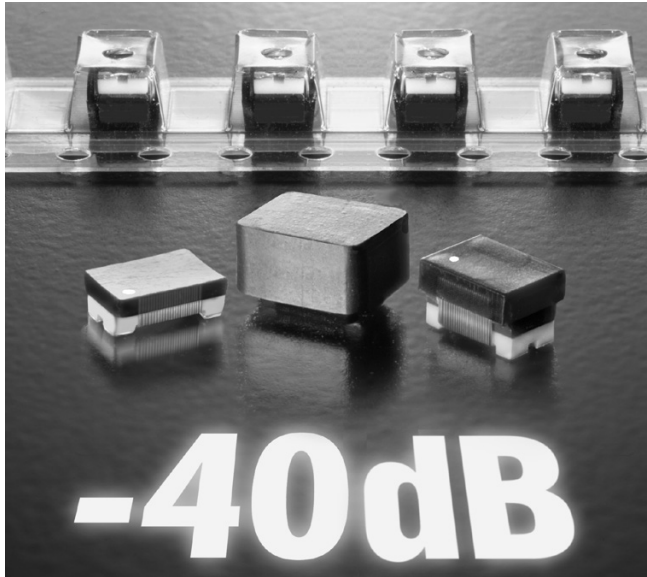


# Common Mode EMI Filters – M2022



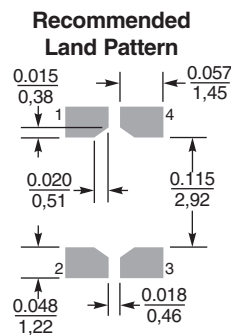
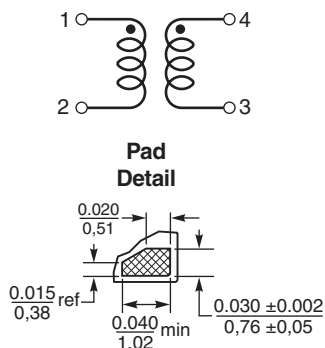
Part number <sup>1</sup>	Inductance <sup>2</sup> (μH)	DCR max (mOhm)	Irms <sup>3</sup> (mAmp)	Isolation (Vrms)
M2022-AL_	4.2 ±10%	800	500	500
M2022-ALPL_	4.0 ±10%	990	500	500
M2022-ASL_	11.5 min	850	500	500

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

#### M2022-ALPLC

- Packaging:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel).  
 B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.  
 D = 13" machine-ready reel. EIA-481 embossed plastic tape (2200 parts per full reel).

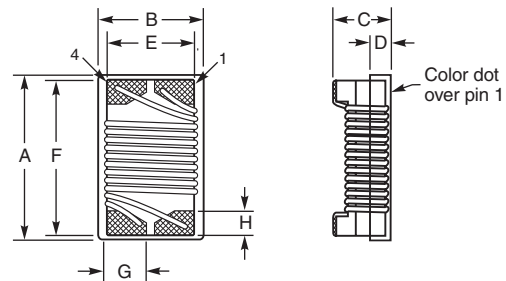
2. Inductance is per winding, measured at 10 MHz.  
 3. Current that causes a 30°C temperature rise from 25°C ambient.  
 4. Electrical specifications at 25°C.  
 Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



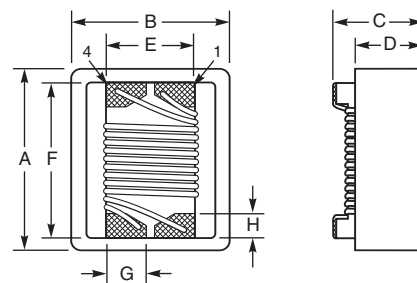
These common mode filters provide excellent noise attenuation in a compact, surface mount package. They're built in an 1812 size configuration that's ideal for auto insertion. In addition to the standard filter, a low profile (-ALPL) and shielded (-ASL) version are available.

Features include excellent isolation, environmental stability and low cost. Coilcraft can also supply custom filters with special combinations of impedance, response and current handling.

## M2022-AL, M2022-ALPL



## M2022-ASL



### M2022-AL

A max	B max	C max	D ref	E ref	F ref	G min	H
0.195	0.150	0.135	0.070	0.100	0.178	0.04	0.03
4,95	3,81	3,43	1,78	2,54	4,52	1,02	0,76

### M2022-ALPL

A max	B max	C max	D ref	E ref	F ref	G min	H
0.195	0.150	0.079	0.070	0.100	0.178	0.04	0.03
4,95	3,81	2,01	1,78	2,54	4,52	1,02	0,76

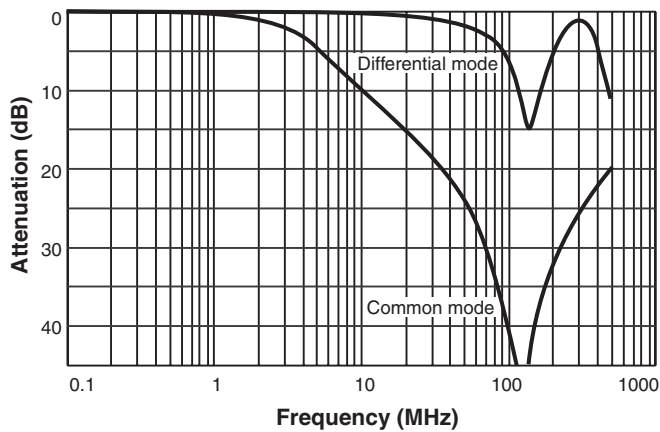
### M2022-ASL

A max	B max	C max	D ref	E ref	F ref	G min	H
0.231	0.196	0.150	0.107	0.100	0.178	0.04	0.03
5,87	4,98	3,81	2,72	2,54	4,52	1,02	0,76

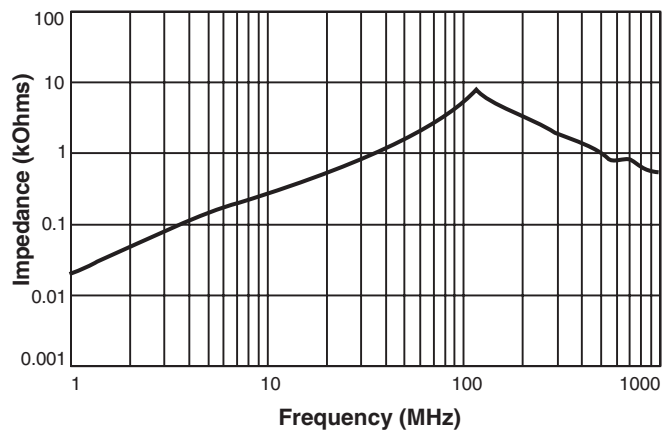


## M2022 Common Mode EMI Filters

### Typical Attenuation\*

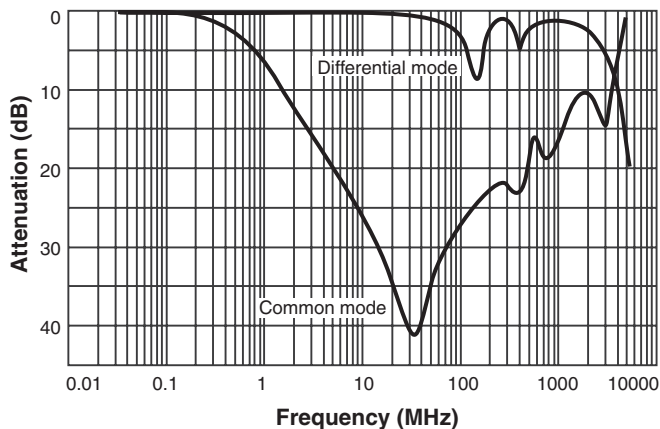


### Typical Impedance vs Frequency

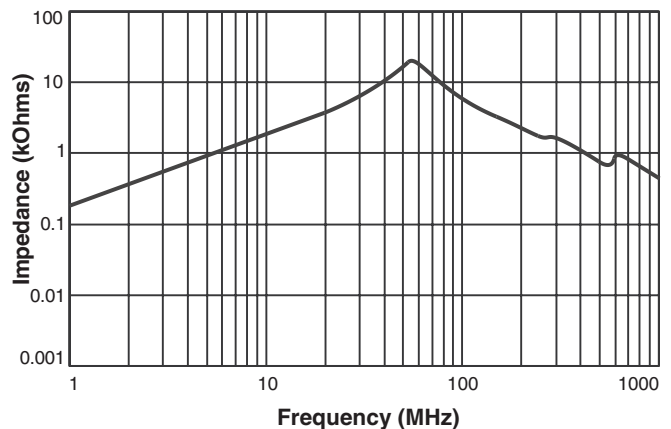


## M2022-ASL

### Typical Attenuation\*



### Typical Impedance vs Frequency



\*Measured on Agilent/HP 8753D network analyzer. Ref: 50 Ohms.

**Core material** Ferrite

**Terminations** RoHS compliant gold over nickel over moly-manganese

**Weight:** M2022-AL 155 mg; M2022-ALPL 85.5 mg; M2022-ASL 319 mg

**Ambient temperature** -40°C to +85°C

**Storage temperature** Component: -40°C to +85°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

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

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

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 600 per 7" reel; 2200 per 13" reel

Plastic tape: 12 mm wide, 8 mm pocket spacing

M2022-AL: 0.3 mm thick, 3.7 mm pocket depth

M2022-ALP: 0.3 mm thick, 2.25 mm pocket depth

M2022-AS: 0.25 mm thick, 3.94 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com

**UK** +44-1236-730595 sales@coilcraft-europe.com

**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw

**China** +86-21-6218 8074 sales@coilcraft.com.cn

**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 151-2 Revised 10/30/08

© Coilcraft Inc. 2013

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.