

## 1812DPS Coupled Inductors for xDSL



The 1812DPS Series features a unique dual winding configuration that provides two balanced coupled inductors in a single package. This increases circuit efficiency, reduces component count and conserves valuable board space.

This magnetically shielded part is optimized for various xDSL filtering applications. Its small size and low profile make it particularly attractive for central office equipment.

These parts can be ordered with terminations that make them compliant with RoHS standards.

In addition to the standard inductance values shown, Coilcraft can customize these inductors to help achieve specific corner frequencies.

Part number <sup>1</sup>		Inductance <sup>2</sup>	Q	DCR max	SRF min	Isat <sup>4</sup>	Irms <sup>5</sup>
Standard	RoHS compliant	±20% (µH)	min <sup>3</sup>	(Ohms)	(MHz)	(mA)	(mA)
1812DPS-102M_	1812DPS-102ML_	1.0	38	0.20	285	2400	2100
1812DPS-222M_	1812DPS-222ML_	2.2	29	0.33	175	1500	1200
1812DPS-472M_	1812DPS-472ML_	4.7	43	0.41	102	1500	1000
1812DPS-103M_	1812DPS-103ML_	10	35	0.74	74	800	780
1812DPS-153M_	1812DPS-103ML_	15	37	0.96	65	700	710
1812DPS-223M_	1812DPS-223ML_	22	38	1.84	54	500	530
1812DPS-393M_	1812DPS-393ML_	39	39	2.60	5.7	450	420
1812DPS-473M_	1812DPS-473ML_	47	40	2.66	4.8	400	390

1. When ordering, please specify packaging code:

1812DPS-473M C 1812DPS-473ML C

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape (500 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 (2500 parts per full reel).
- 2. Per winding. Tested at 100 kHz, 0.1 Vrms, 0 Adc.
- 3. Q measured at 1 MHz.
- 4. DC current at which the inductance drops 10% (typ) from its value without current.
- 5. Average current for a 40°C rise above 25°C ambient.
- 6. Operating temperature range -40°C to +85°C.
- 7. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.



Specifications subject to change without notice.

Please check our website for latest information. Document 248-1

Document 248-1 Revised 02/07/05

**E-mail** info@coilcraft.com **Web** http://www.coilcraft.com

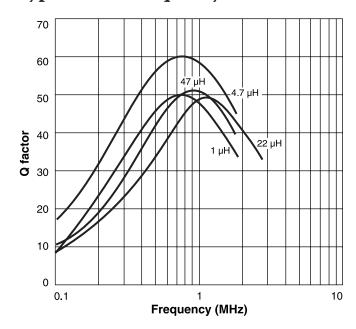


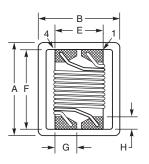
### **1812DPS Coupled Inductors for xDSL**

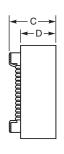
#### Typical L vs Frequency

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#### Typical Q vs Frequency

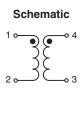






# Land Pattern $| \leftarrow | \frac{0.057}{1,45}$ 0.048 1,22 $| \leftarrow 0.018$ 0.0102 0.048 0.004 0.004 0.004

Recommended



A max	B max	C max	D ref	E ref	F ref	G min	Н
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

Terminations: Nickel/gold over moly-manganese

**Tape and reel:** 500/7" reel; 2000/13" reel 12 mm tape width For packaging data see Tape and Reel Specifications section.



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Document 248-2 Revised 02/07/05