

Chip Inductors for DOCSIS 3.x



- Low inductance (39 – 120 nH) 1812 size chip inductors
- Designed for set-top boxes
- High SRF, up to 2487 MHz
- 2% tolerance for all values

| Part number ¹ | Inductance ² ±2% (nH) | Q typ ³ | SRF typ ⁴ (MHz) | DCR max ⁵ (mOhms) | Irms ⁶ (mA) |
|--------------------------|-------------------------------------|-----------------------|----------------------------------|------------------------------------|---------------------------|
| TA7849-AE_ | 39 | 49 | 2487 | 120 | 1100 |
| TA7850-AE_ | 47 | 55 | 1875 | 110 | 1100 |
| TA7851-AE_ | 56 | 55 | 1908 | 126 | 920 |
| TA7852-AE_ | 68 | 55 | 1972 | 149 | 900 |
| PA6691-AE_ | 80 | 61 | 1345 | 140 | 900 |
| PA6692-AE_ | 100 | 62 | 1245 | 160 | 860 |
| PA6693-AE_ | 120 | 67 | 990 | 160 | 860 |

- When ordering, please specify **packaging** code:

↓
TA7852-AEC

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2200 parts per full reel).

- Inductance measured at 50 MHz using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
- Q measured at 50 MHz using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
- SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
- DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF859 test fixture.
- Current that causes a 15°C temperature rise from 25°C ambient.
- Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Core material Ceramic

Terminations RoHS compliant silver-palladium-platinum-glass frit.

Weight 109 – 128 mg

Ambient temperature –40°C to +125°C with Irms current

Maximum part temperature +140°C (ambient + temp rise)

Storage temperature Component: –40°C to +140°C.

Tape and reel packaging: –40°C to +80°C

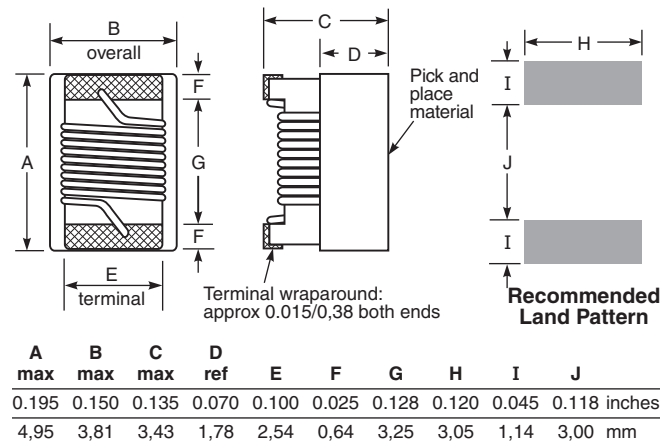
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

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

Packaging 600 per 7" reel; 2200 per 13" reel. Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.7 mm pocket depth

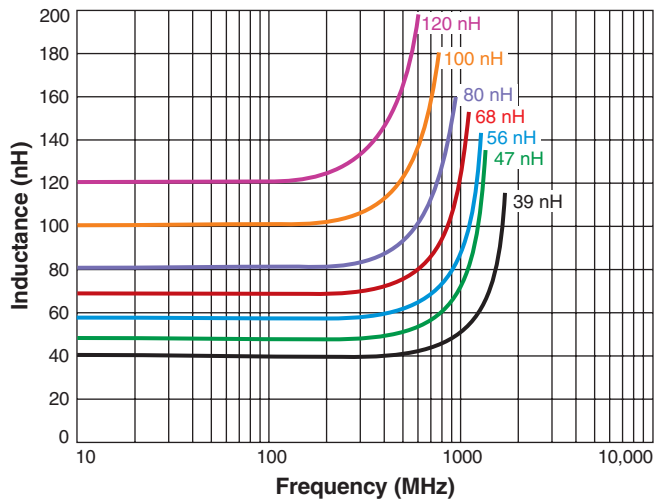
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).



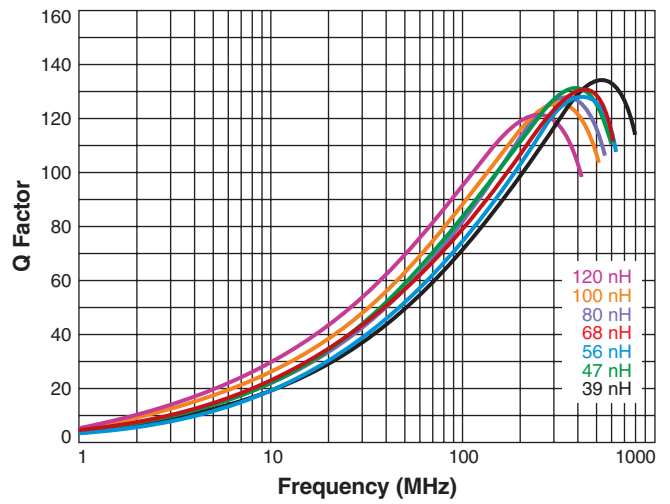


DOCSIS filters – 1812

L vs Frequency



Q vs Frequency



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