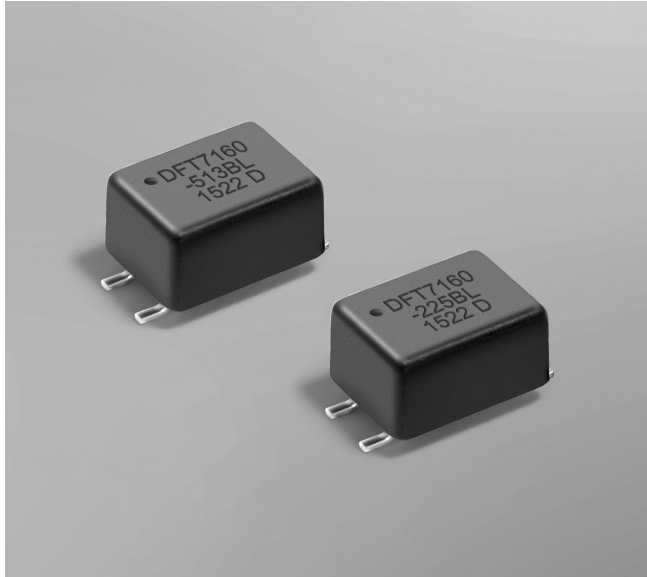


**NEW!**

# SMT Data Line EMI Filters DFT7160



- Current-compensated ring core double choke
- Miniature footprint; less than 5 mm tall
- Exceptional common mode noise attenuation.
- 250 Vrms, one minute isolation (hipot) between windings

**Core material** Ferrite

**Environmental** RoHS compliant

**Terminations** RoHS compliant matte tin over nickel over phos-bronze

**Weight** 220 – 230 mg

**Ambient temperature** –40°C to +85°C with Irms current

**Maximum part temperature** +105°C (ambient + temp rise)

**Storage temperature** Component: –40°C to +105°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** 250/7" reel; 1000/13" reel Plastic tape: 16 mm wide, 0.4 mm thick, 12 mm pocket spacing, 4.8 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

| Part number <sup>1</sup> | Common mode impedance max (kOhms) | Cutoff frequency <sup>2</sup> (MHz) | Inductance (mH) <sup>3</sup> |        | Test frequency (kHz) | Irms <sup>4</sup> (mA) | DCR max <sup>5</sup> (Ohms) | Leakage inductance max (µH) |
|--------------------------|-----------------------------------|-------------------------------------|------------------------------|--------|----------------------|------------------------|-----------------------------|-----------------------------|
|                          |                                   |                                     | nom                          | min    |                      |                        |                             |                             |
| DFT7160-513SL_           | 3.98 @ 73 MHz                     | 25                                  | 0.051                        | 0.0357 | 100                  | 700                    | 0.300                       | 1.69                        |
| DFT7160-513BL_           | 4.01 @ 60 MHz                     | 570                                 | 0.051                        | 0.0357 | 100                  | 700                    | 0.300                       | 0.091                       |
| DFT7160-474BL_           | 2.44 @ 10 MHz                     | 410                                 | 0.47                         | 0.329  | 100                  | 1000                   | 0.210                       | 0.085                       |
| DFT7160-105BL_           | 3.20 @ 8.9 MHz                    | 420                                 | 1.0                          | 0.700  | 10                   | 900                    | 0.210                       | 0.104                       |
| DFT7160-225BL_           | 6.69 @ 5.3 MHz                    | 670                                 | 2.2                          | 1.54   | 10                   | 600                    | 0.500                       | 0.156                       |
| DFT7160-475BL_           | 13.47 @ 3.0 MHz                   | 440                                 | 4.7                          | 3.29   | 10                   | 500                    | 0.600                       | 0.260                       |

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

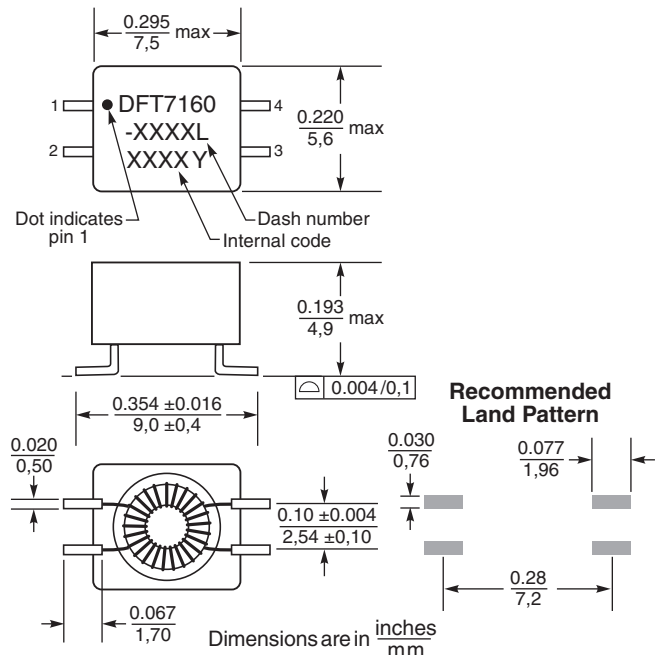
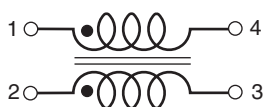
**DFT7160-475BLC**

**Packaging: C** = 7" machine-ready reel. EIA-481 embossed plastic tape (250 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. Factory order only, not stocked (1000 parts per full reel).

- Frequency at which the differential mode attenuation equals 3 dB
  - Inductance is for each winding, measured at test frequency using an Agilent/HP 4286A impedance analyzer and a Coilcraft SMD-A fixture
  - Current that causes a 20°C temperature rise from 25°C ambient.
  - DCR is specified per winding.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



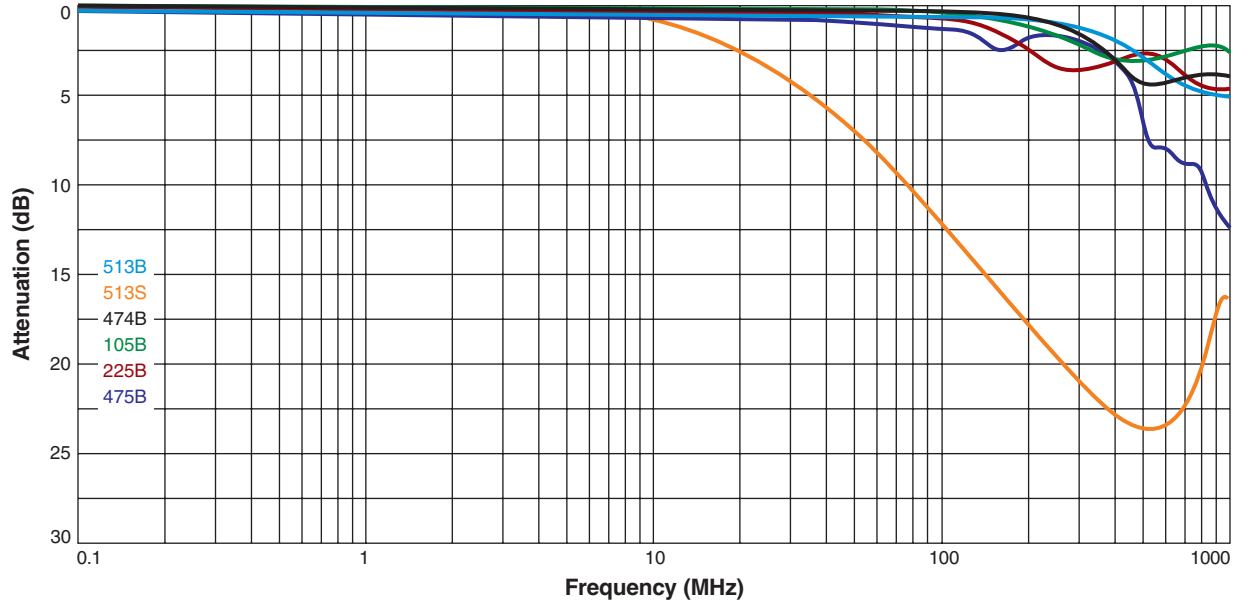
**NEW!**



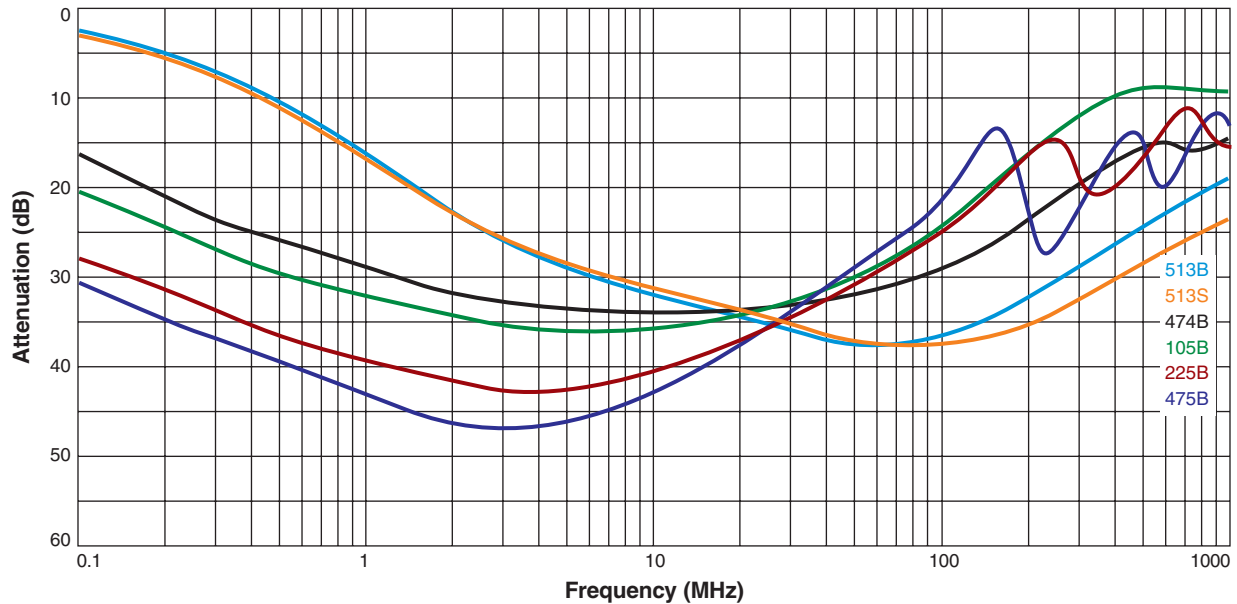
# SMT Data Line EMI Filters – DFT7160

## Attenuation vs Frequency

### Differential Mode



### Common Mode



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**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

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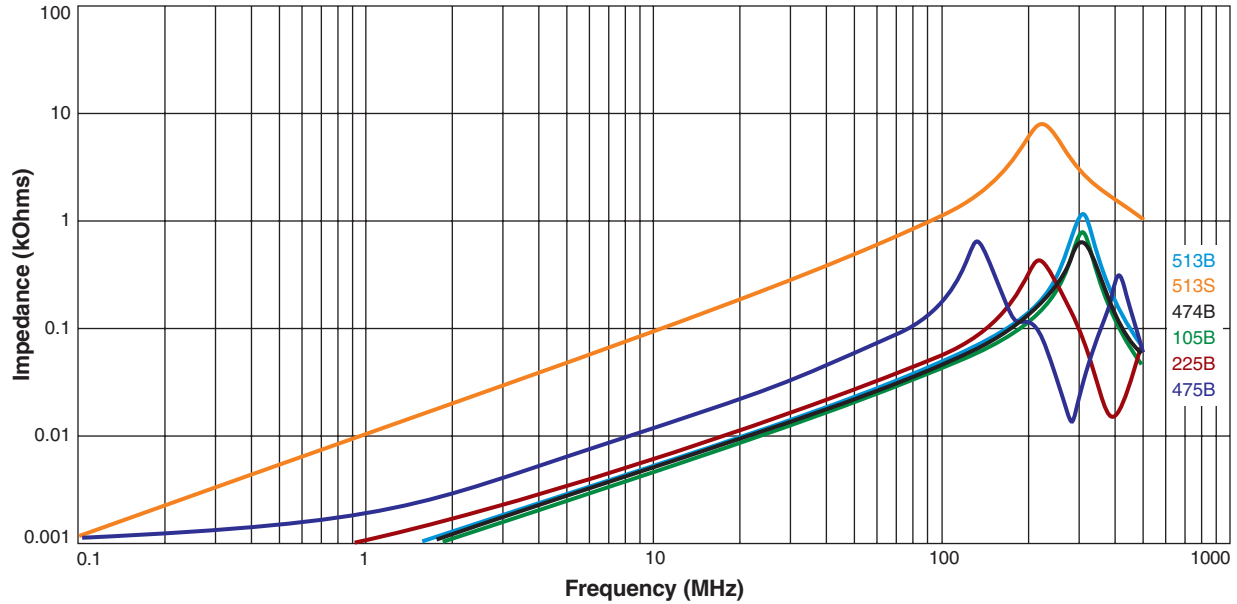
**NEW!**



# SMT Data Line EMI Filters – DFT7160

## Impedance vs Frequency

### Differential Mode



### Common Mode

