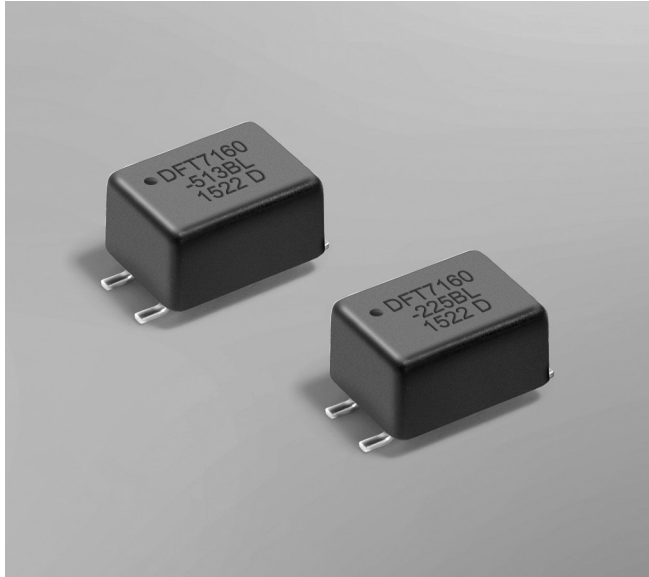


SMT Data Line EMI Filters DFT7160



- 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](#).

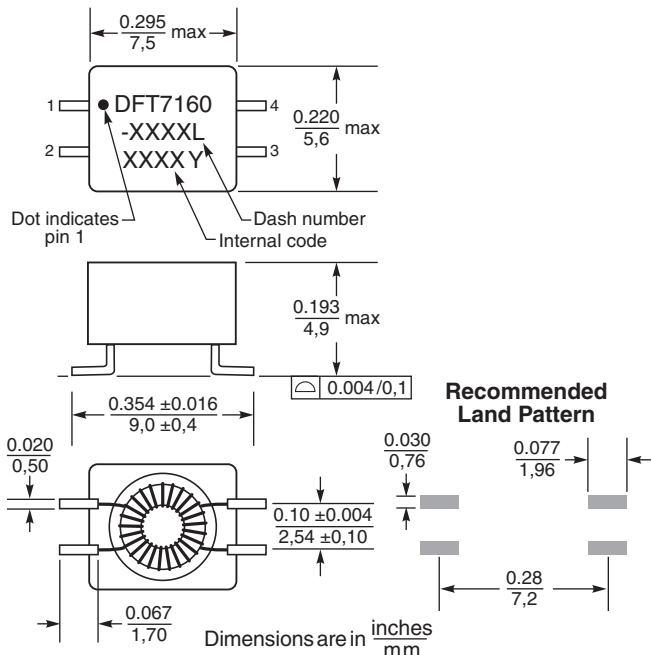
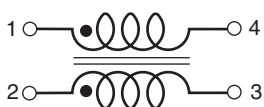
| Part number ¹ | Common mode impedance max (kOhms) | Cutoff frequency ² (MHz) | Inductance (mH) ³ | | Test frequency (kHz) | Irms ⁴ (mA) | DCR max ⁵ (Ohms) | Leakage inductance max (µH) |
|--------------------------|-----------------------------------|-------------------------------------|------------------------------|--------|----------------------|------------------------|-----------------------------|-----------------------------|
| | | | 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.

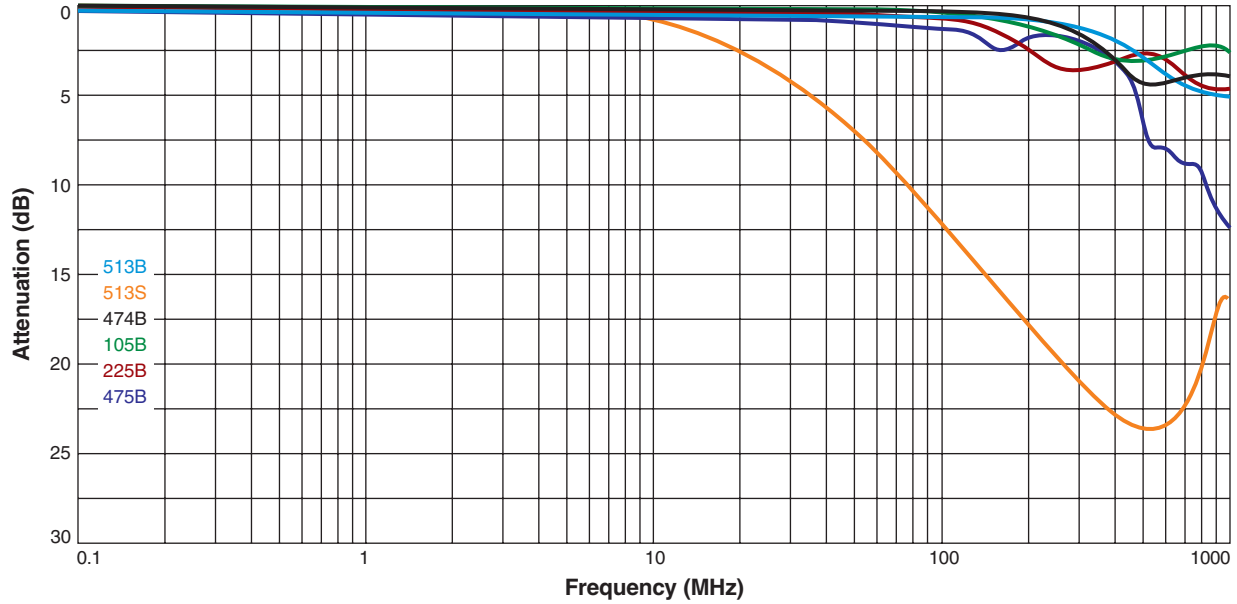




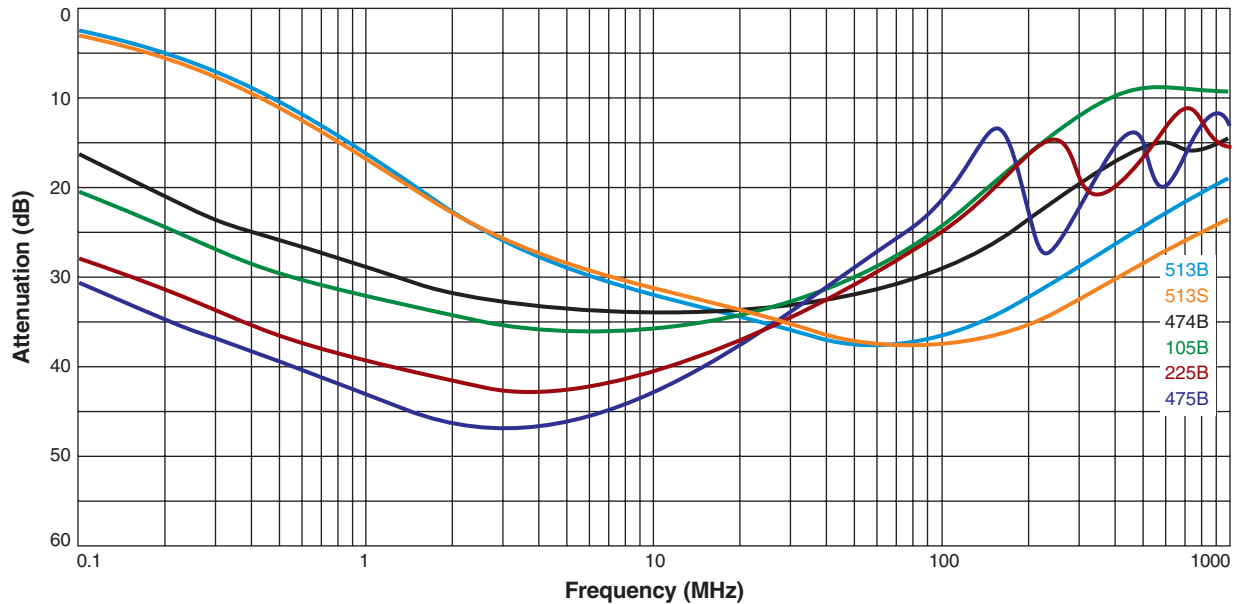
SMT Data Line EMI Filters – DFT7160

Attenuation vs Frequency

Differential Mode



Common Mode

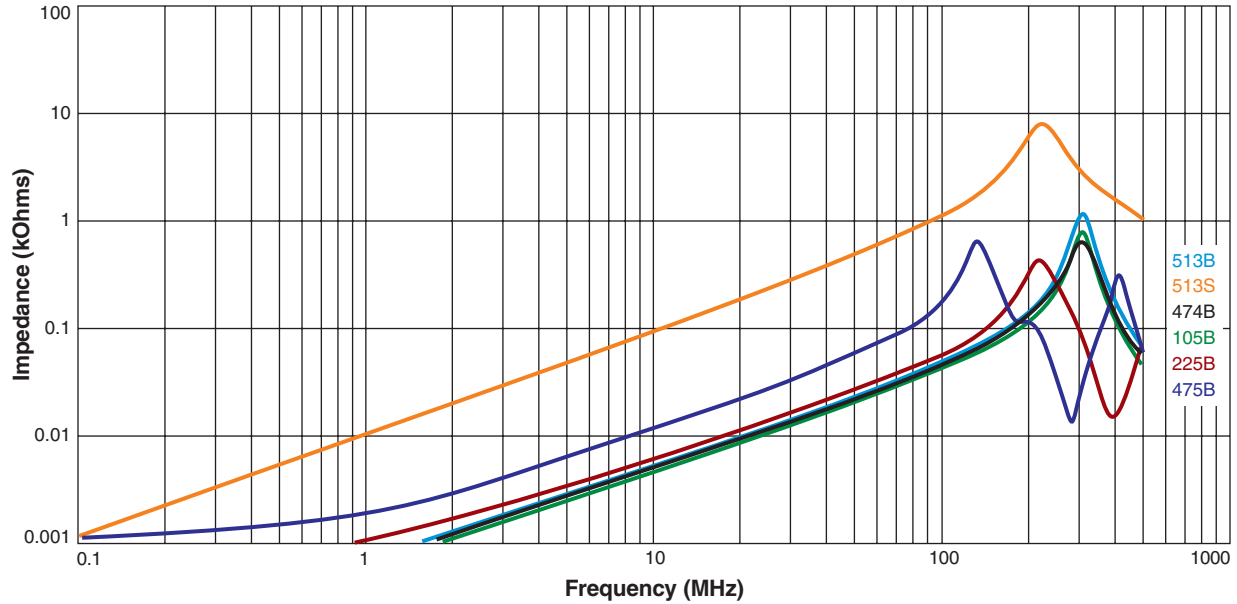




SMT Data Line EMI Filters – DFT7160

Impedance vs Frequency

Differential Mode



Common Mode

