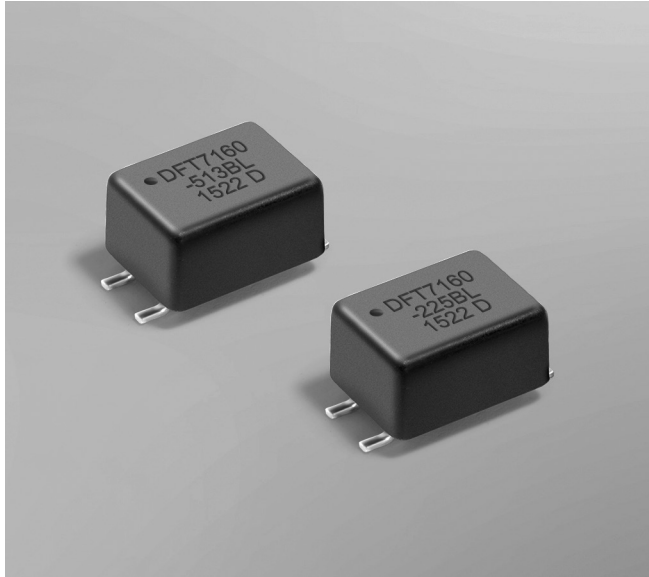


# SMT Data Line EMI Filters DFT7160



- 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_	3.97 @ 69 MHz	25	0.051	0.0357	100	700	0.300	1.69
DFT7160-513BL_	4.00 @ 55 MHz	570	0.051	0.0357	100	700	0.300	0.091
DFT7160-474BL_	2.42 @ 7.5 MHz	410	0.47	0.329	100	1000	0.210	0.085
DFT7160-105BL_	3.12 @ 6.0 MHz	420	1.0	0.700	10	900	0.210	0.104
DFT7160-225BL_	6.66 @ 4.7 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:

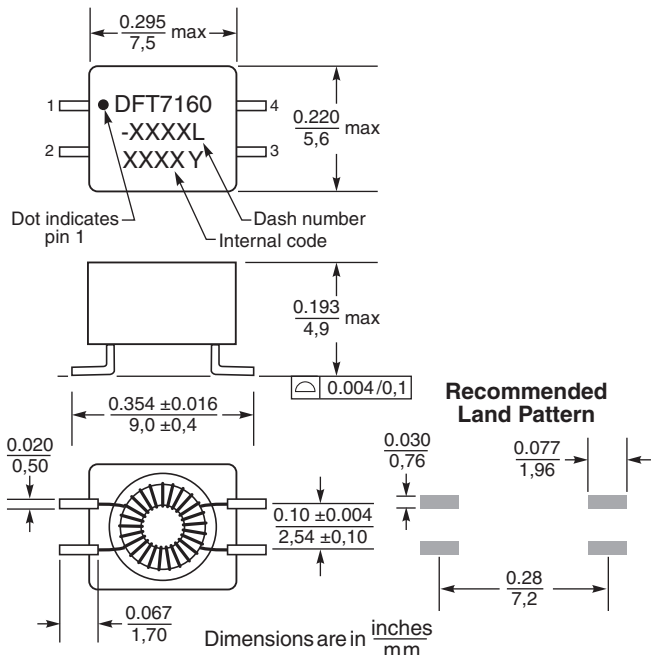
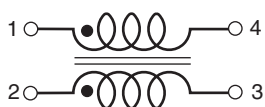
**DFT7160-475BLC**

**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.

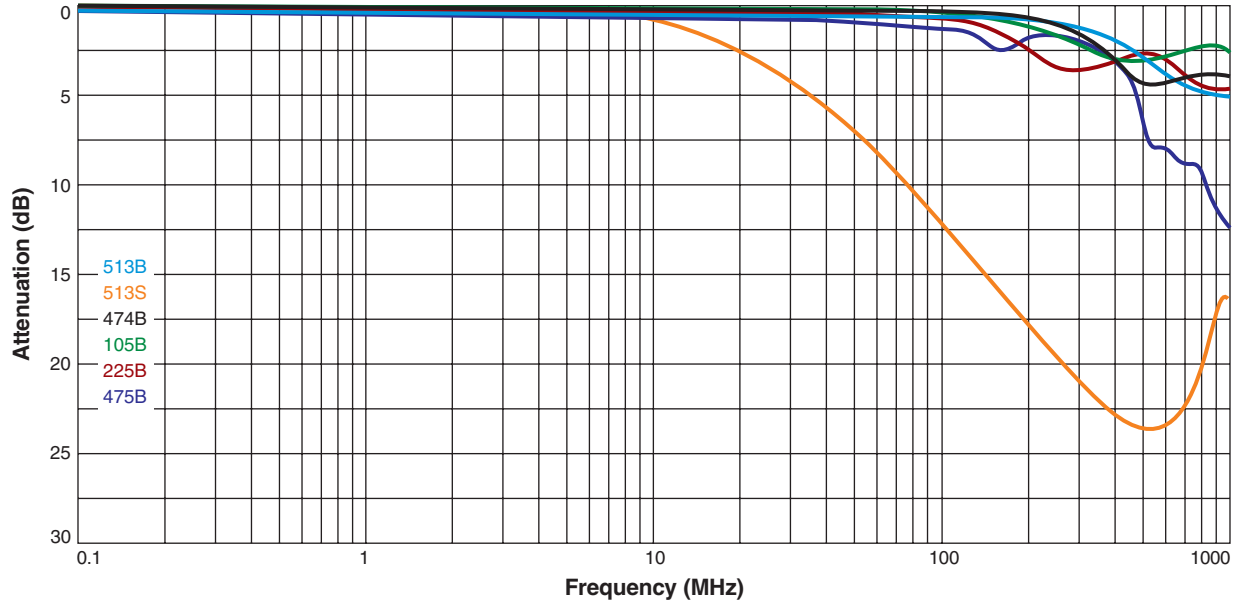




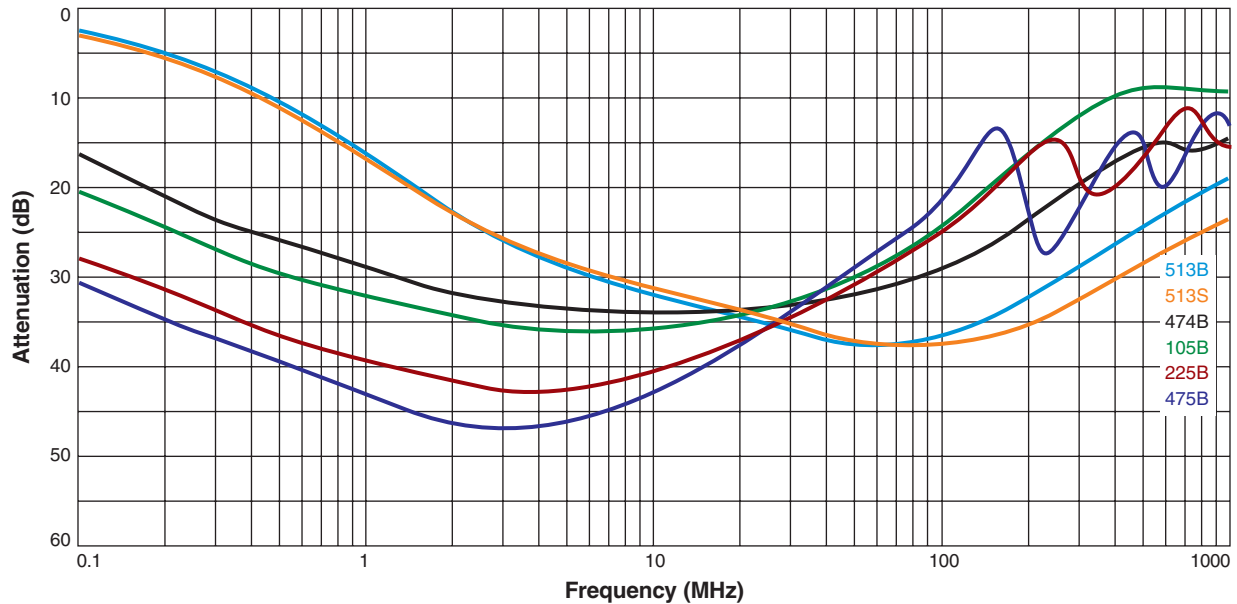
# SMT Data Line EMI Filters – DFT7160

## Attenuation vs Frequency

### Differential Mode



### Common Mode

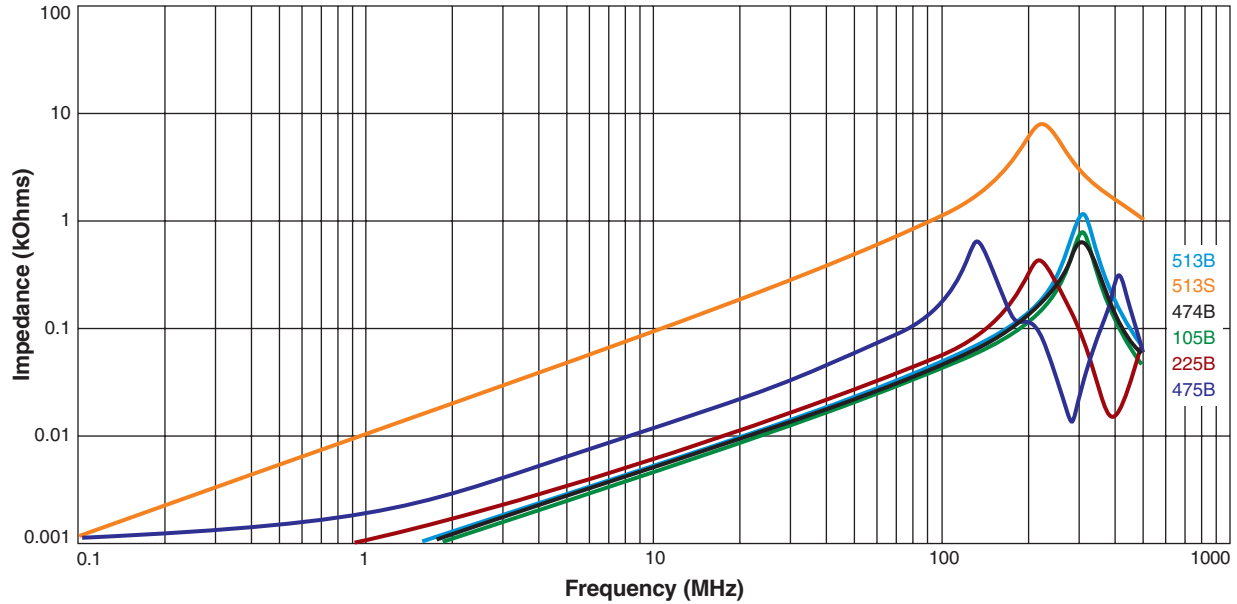




# SMT Data Line EMI Filters – DFT7160

## Impedance vs Frequency

### Differential Mode



### Common Mode

