Low Profile USB Common Mode Choke  ZE2401-AE

- Common mode choke suitable for use in FPD-Link III & FPD-Link IV up to 13.5 Gbps link rates
- Attenuate common mode signal with minimal effect on differential signal in forward channel and backchannel for maintaining stable signal integrity

Core material  Ferrite
Environmental  RoHS compliant
Terminations  Matte tin over nickel over silver-palladium-glass frit.
Weight  14.7 – 15.5 mg
Ambient temperature  –40°C to +125°C with Irms current.
Maximum part temperature  140°C
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 refloows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL)  1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging 2000/7” reel; 7500/13” reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.295 mm pocket depth
PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number | Common mode peak impedance (kOhms) | Cutoff frequency (GHz) | Common mode attenuation typ (dB) | Inductance min (nH) | DCR max (Ohms) | Isolation (Vrms) | Irms (mA)
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ZE2401-AE_ | >0.16 @ >3.0 GHz | >5.0 | 5.3 | 7.1 | 30 | 0.35 | 250 | 100

1. When ordering, please specify packaging code: ZE2401-AEC

Packaging: C = 7” machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

D = 13” machine-ready reel. EIA-481 embossed plastic tape (7500 parts per full reel).

2. Frequency at which the differential mode attenuation equals −3 dB
3. Inductance measured at 100 MHz using an Agilent/HP 4286A impedance analyzer and a Coilcraft SMD-A fixture.
4. DCR is specified per winding.
5. Winding to winding isolation (hipot) tested for one minute.
6. Current per winding that causes a 15°C rise from 25°C ambient.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Dimensions are in inches

Recommended Land Pattern
USB 2.0, 3.x Common Mode Filter — 0805USBF

Typical Attenuation (Ref: 50 Ohms)

Typical Impedance vs Frequency