Common Mode Choke RA6870

- Recommended for use in the RX and TX sections of the Microchip MOST150 coaxial PHY application diagrams.
- Specified for the OS82150 MOST150 Coaxial Transceiver, OS81118 MOST150 INIC and OS81119 MOST150 Dual Port INIC

Core material | Ferrite  
Environmental | RoHS compliant  
Terminations | Matte tin over nickel over silver-palladium-glass frit.  
Ambient temperature | –40°C to +125°C with Irms current  
Storage temperature | Component: –40°C to +125°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)  
Packaging | 2000/7” reel; 7500/13” reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.14 mm pocket depth  
PCB washing | Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Common mode impedance max (kOhms)</th>
<th>Cutoff frequency2 (MHz)</th>
<th>Inductance3 min (nH)</th>
<th>Irms4 (mA)</th>
<th>DCR max5 (Ohms)</th>
<th>Isolation6 (Vrms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA6870-AL_</td>
<td>1.94 @ 700 MHz</td>
<td>590</td>
<td>700</td>
<td>300</td>
<td>0.69</td>
<td>250</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:
RA6870-AL_

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).
- 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.

2. Frequency at which the differential mode attenuation equals 3 dB
3. Inductance shown for each winding, measured at 100 MHz using an Agilent/HP 4286A impedance analyzer and a Coilcraft SMD-A fixture.
4. Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
5. DCR is specified per winding.
6. Isolation (hipot) measured for one minute.
7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Dimensions are in inches/mm

Recommended Land Pattern
Common Mode Choke — RA6870-AL

Attenuation (Ref: 50 Ohms)

Impedance vs Frequency

[Graphs showing impedance and attenuation vs frequency for common and differential modes.]