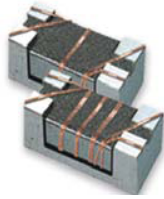


CMC Series For USB 2.0, IEEE1394b, LVDS Applications



Based on AMAX technical expertise, we have introduced a full series of common mode choke. They are designed for excellent noise attenuation with a compact size for wide applications such as USB line for personal computers and peripheral, IEEE 1394 line for personal computers, DVC, STB and LVDS, panel line for liquid display panels, etc. We welcome you to contact us for requirement of our standard series or custom design service.

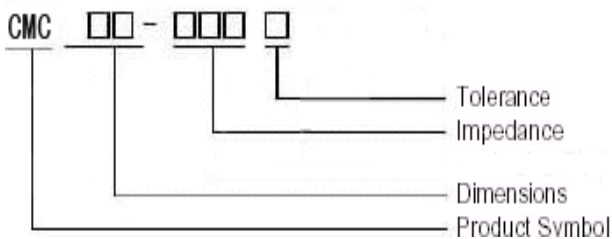
Features

- RoHS Compliant
- Miniature SMD type common mode filter for fully automated assembly.
- Wide Impedance range (30Ω ~ 2200Ω) for noise suppression.
- Excellent Solderability.
-

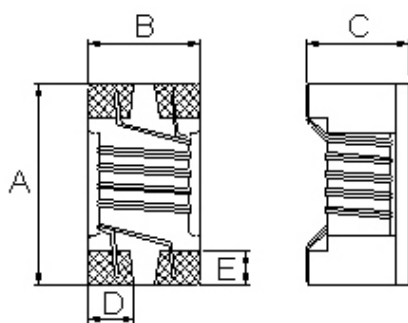
Applications

- USB line for personal computers and peripheral,
- IEEE 1394 line for personal computers, DVC, STB.
- LVDS, panel line for liquid display panels, graph card etc.

Product Identification



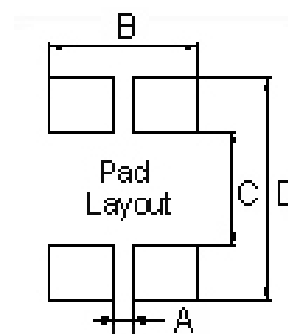
Shapes and Dimensions



Dimensions in mm

| TYPE | A | B | C | D | E |
|-------|----------|----------|----------|------|------|
| CMC21 | 2.05±0.2 | 1.25±0.2 | 1.20±0.2 | 0.50 | 0.58 |
| CMC31 | 3.20±0.2 | 1.60±0.2 | 1.90±0.2 | 0.60 | 0.60 |

Recommended Pattern



Dimensions in mm

| TYPE | A | B | C | D |
|-------|------|------|------|------|
| CMC21 | 0.50 | 1.20 | 0.80 | 2.60 |
| CMC31 | 0.40 | 1.60 | 1.60 | 3.70 |

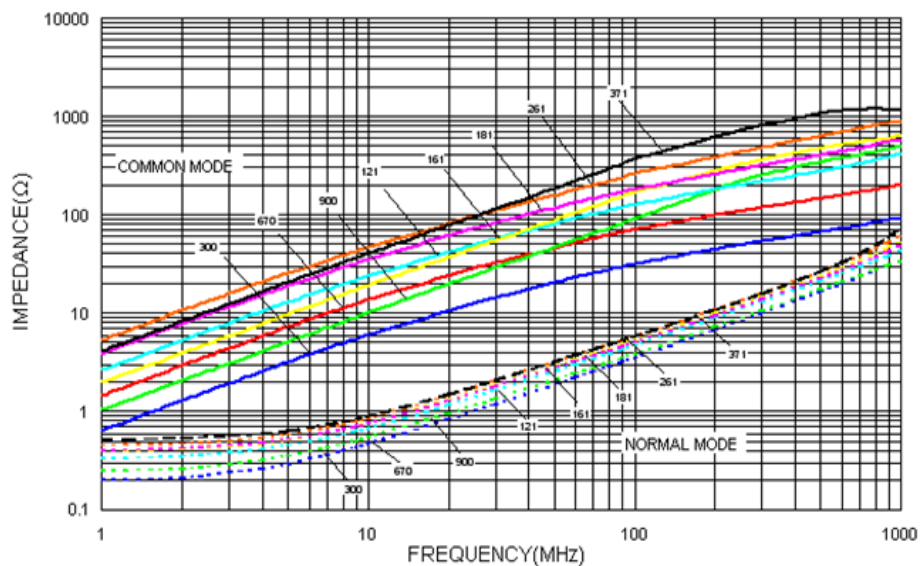
Electrical Characteristics

| Part Number | Impedance (Ω) | Test Frequency (MHz) | Tolerance ($\pm\%$) | Idc (mA) Max | Rated Voltage (Vdc) | Rdc (Ω) Max | Insulation Resistance (M Ω) Min |
|-------------|---------------------------|-------------------------|--------------------------|-----------------|------------------------|-------------------------|--|
| CMC21-300M | 30 | 100 | 20 | 450 | 120 | 0.20 | 10 |
| CMC21-670M | 67 | 100 | 20 | 400 | 120 | 0.25 | 10 |
| CMC21-900M | 90 | 100 | 20 | 330 | 120 | 0.35 | 10 |
| CMC21-121M | 120 | 100 | 20 | 370 | 120 | 0.30 | 10 |
| CMC21-161M | 160 | 100 | 20 | 350 | 120 | 0.35 | 10 |
| CMC21-181M | 180 | 100 | 20 | 330 | 120 | 0.35 | 10 |
| CMC21-201M | 200 | 100 | 20 | 330 | 120 | 0.35 | 10 |
| CMC21-221M | 220 | 100 | 20 | 310 | 120 | 0.35 | 10 |
| CMC21-261M | 260 | 100 | 20 | 300 | 120 | 0.40 | 10 |
| CMC21-301M | 300 | 100 | 20 | 290 | 120 | 0.40 | 10 |
| CMC21-361M | 360 | 100 | 20 | 280 | 120 | 0.45 | 10 |
| CMC21-371M | 370 | 100 | 20 | 280 | 120 | 0.45 | 10 |
| CMC21-501M | 500 | 100 | 20 | 170 | 120 | 0.55 | 10 |
| CMC21-671M | 670 | 100 | 20 | 140 | 120 | 0.60 | 10 |
| CMC21-901M | 900 | 100 | 20 | 80 | 120 | 0.60 | 10 |

- When ordering, please specify tolerance and packaging codes.
- Tolerance : M = $\pm 20\%$
- Packaging : Clear tape and reel { standard }.
- Z : Agilent/HP4291A
- Rdc(single line) : CH502BC/ HP4338B
- Insulation Resistance : Agilent /HP4339B
- Operating temperature range from -25°C to 105°C . (Including self - temperature rise)

Test Instruments : HP4291A Material/Impedance Analyzer

I vs. F

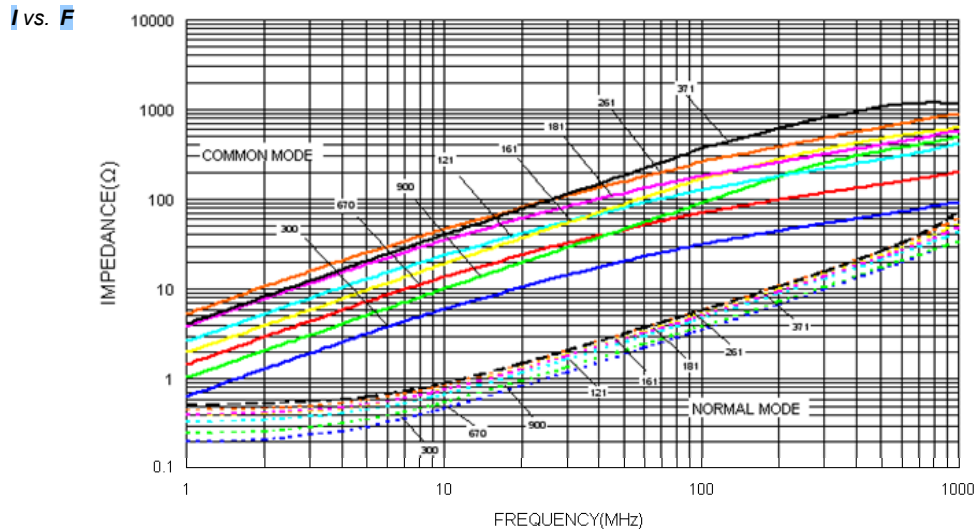


Electrical Characteristics

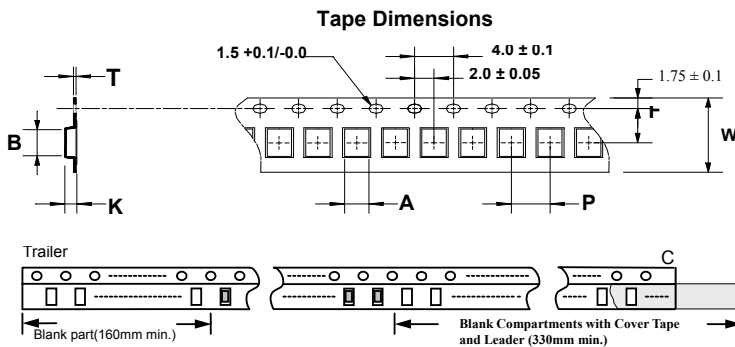
| Part Number | Impedance (Ω) | Test Frequency (MHz) | Tolerance (±%) | Idc (mA) Max | Rated Voltage (Vdc) | Rdc (Ω) Max | Insulation Resistance (MΩ) Min |
|-------------|---------------|----------------------|----------------|--------------|---------------------|-------------|--------------------------------|
| CMC31-900M | 90 | 100 | 20 | 370 | 50 | 0.3 | 10 |
| CMC31-161M | 160 | 100 | 20 | 340 | 50 | 0.4 | 10 |
| CMC31-221M | 220 | 100 | 20 | 320 | 50 | 0.4 | 10 |
| CMC31-261M | 260 | 100 | 20 | 310 | 50 | 0.5 | 10 |
| CMC31-601M | 600 | 100 | 20 | 260 | 50 | 0.8 | 10 |
| CMC31-102M | 1000 | 100 | 20 | 230 | 50 | 1.0 | 10 |
| CMC31-222M | 2200 | 100 | 20 | 200 | 50 | 1.2 | 10 |

- Tolerance: M = ±20%
- Packaging: Clear tape and reel {standard}
- Z: Agilent/HP4291A
- Rdc (single line): CH502BC/ HP4338B
- Insulation Resistance: Agilent/HP4339B
- Operating temperature range from -25°C to +105°C. (Including self - temperature rise)

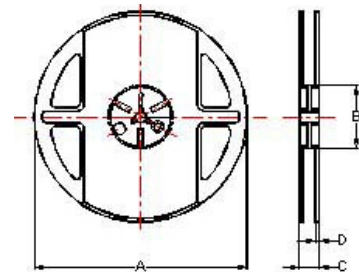
Test Instruments : HP4291A Material/Impedance Analyzer



Packaging Specifications



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | Reel Dimensions | | | | Quantity PCS / Reel |
|-------|-----------------|------|------|---|---|-----|------|-----------------|----|----|-----|------------------------|
| | A | B | T | W | P | F | K | A | B | C | D | |
| CMC21 | 1.50 | 2.25 | 0.24 | 8 | 4 | 3.5 | 1.45 | 178 | 60 | 12 | 1.5 | 2000 |
| CMC31 | 1.76 | 3.47 | 0.22 | 8 | 4 | 3.5 | 2.05 | 178 | 60 | 12 | 1.5 | 2000 |