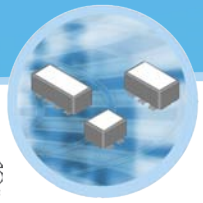


# Common Mode Array - Series 22



- Up to 5 Amps Continuous Operating Capability
- 2, 3 & 4 Choke Array Versions
- Surface Mount
- Stable Performance Under Load
- Low Normal (Differential) Mode Impedance at 100 MHz

## PART NUMBER SYSTEM EXAMPLE

| CM                  | 2722           | R                  | 800                  | R              | -10                    |
|---------------------|----------------|--------------------|----------------------|----------------|------------------------|
| Product Series Code | Part Size Code | Rated Current Code | Impedance Value Code | Packaging Code | Additional Description |

| Part Number    | ONE PASS TYPICAL IMPEDANCE ( $\Omega$ ) |             |             |           | ONE PASS TYPICAL PEAK  |                             | DCR MAX ( $\Omega$ ) | Rated I MAX (continuous) mA |
|----------------|-----------------------------------------|-------------|-------------|-----------|------------------------|-----------------------------|----------------------|-----------------------------|
|                | Z @ 25 MHz                              | Z @ 100 MHz | Z @ 500 MHz | Z @ 1 GHz | Impedance ( $\Omega$ ) | Impedance Frequency ( MHz ) |                      |                             |
| CM2722R800R-10 | 60                                      | 80          | 92          | 98        | 140                    | 3000                        | 0.0200               | 5,000                       |
| CM2722R151R-10 | 113                                     | 150         | 165         | 165       | 168                    | 1783                        | 0.0200               | 5,000                       |
| CM2722R201R-10 | 141                                     | 200         | 202         | 187       | 206                    | 272                         | 0.0200               | 5,000                       |
| CM3822R800R-10 | 63                                      | 80          | 97          | 105       | 151                    | 3000                        | 0.0200               | 5,000                       |
| CM3822R151R-10 | 108                                     | 150         | 170         | 169       | 172                    | 1646                        | 0.0200               | 5,000                       |
| CM3822R201R-10 | 140                                     | 200         | 207         | 187       | 213                    | 218                         | 0.0200               | 5,000                       |
| CM5022R800R-10 | 61                                      | 80          | 95          | 102       | 150                    | 3000                        | 0.0200               | 5,000                       |
| CM5022R151R-10 | 112                                     | 150         | 165         | 167       | 177                    | 2092                        | 0.0200               | 5,000                       |
| CM5022R201R-10 | 144                                     | 200         | 206         | 188       | 210                    | 306                         | 0.0200               | 5,000                       |

| Part Number    | Fig # | # of Chokes | A mm (inches) | B mm (inches) | C mm (inches) |
|----------------|-------|-------------|---------------|---------------|---------------|
| CM2722R800R-10 | 1     | 2           | 6.99 (0.275)  | 5.72 (0.225)  | 4.32 (0.170)  |
| CM2722R151R-10 | 1     | 2           | 6.99 (0.275)  | 5.72 (0.225)  | 7.62 (0.300)  |
| CM2722R201R-10 | 1     | 2           | 6.99 (0.275)  | 5.72 (0.225)  | 9.53 (0.375)  |
| CM3822R800R-10 | 2     | 3           | 9.78 (0.385)  | 5.72 (0.225)  | 4.32 (0.170)  |
| CM3822R151R-10 | 2     | 3           | 9.78 (0.385)  | 5.72 (0.225)  | 7.62 (0.300)  |
| CM3822R201R-10 | 2     | 3           | 9.78 (0.385)  | 5.72 (0.225)  | 9.53 (0.375)  |
| CM5022R800R-10 | 3     | 4           | 12.57 (0.495) | 5.72 (0.225)  | 4.32 (0.170)  |
| CM5022R151R-10 | 3     | 4           | 12.57 (0.495) | 5.72 (0.225)  | 7.62 (0.300)  |
| CM5022R201R-10 | 3     | 4           | 12.57 (0.495) | 5.72 (0.225)  | 9.53 (0.375)  |

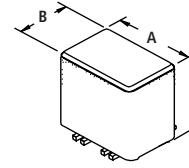


Figure 1  
Two Chokes

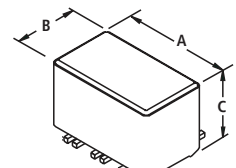


Figure 2  
Three Chokes

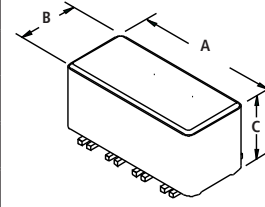


Figure 3  
Four Chokes

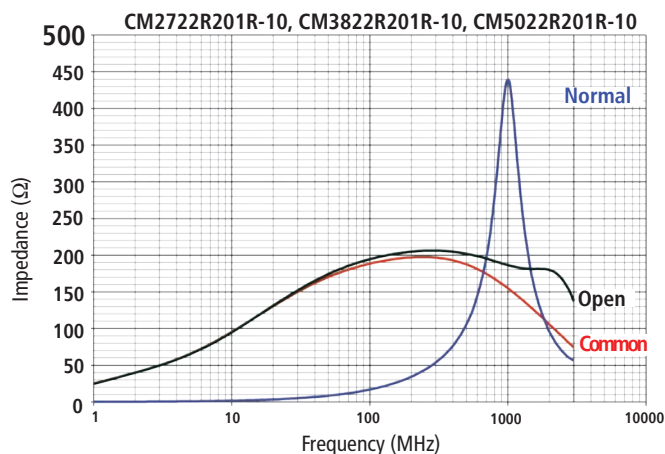
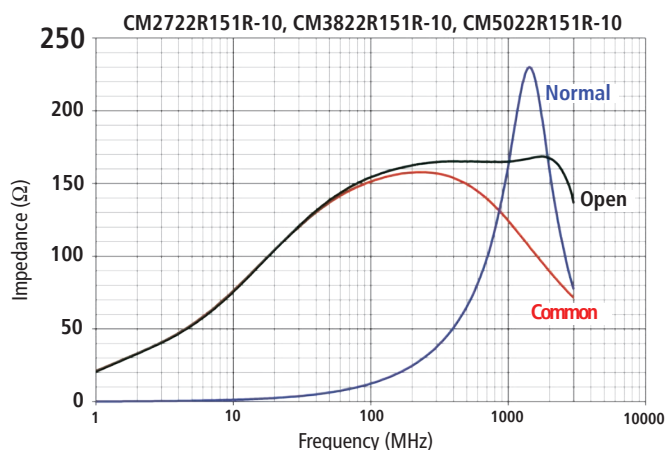
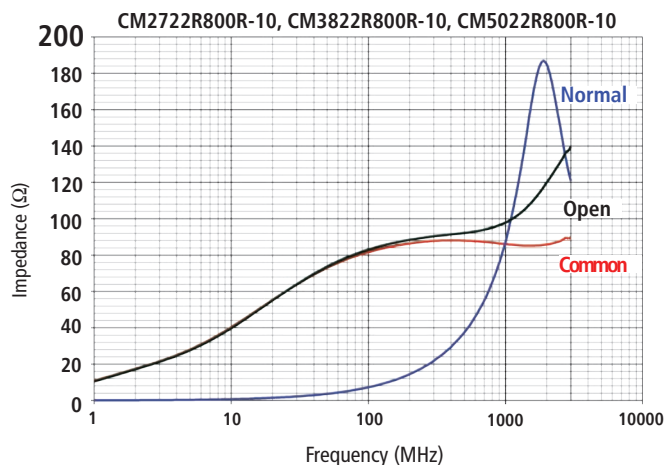
Side by side arrays can be installed in series to multiply impedance

| Part Number    | # of Chokes | TYPICAL IMPEDANCE ( $\Omega$ ) FOR MULTIPLE PASS BOARD LAYOUT OPTIONS |         |       |          |         |       |            |         |       |           |         |       |
|----------------|-------------|-----------------------------------------------------------------------|---------|-------|----------|---------|-------|------------|---------|-------|-----------|---------|-------|
|                |             | One Pass                                                              |         |       | Two Pass |         |       | Three Pass |         |       | Four Pass |         |       |
|                |             | 100 MHz                                                               | 500 MHz | 1 GHz | 100 MHz  | 500 MHz | 1 GHz | 100 MHz    | 500 MHz | 1 GHz | 100 MHz   | 500 MHz | 1 GHz |
| CM2722R800R-10 | 2           | 80                                                                    | 92      | 98    | 174      | 190     | 173   | -          | -       | -     | -         | -       | -     |
| CM2722R151R-10 | 2           | 150                                                                   | 165     | 165   | 292      | 311     | 222   | -          | -       | -     | -         | -       | -     |
| CM2722R201R-10 | 2           | 200                                                                   | 202     | 187   | 433      | 362     | 187   | -          | -       | -     | -         | -       | -     |
| CM3822R800R-10 | 3           | 80                                                                    | 97      | 105   | 174      | 190     | 173   | 304        | 334     | 257   | -         | -       | -     |
| CM3822R151R-10 | 3           | 150                                                                   | 170     | 169   | 292      | 311     | 222   | 490        | 448     | 226   | -         | -       | -     |
| CM3822R201R-10 | 3           | 200                                                                   | 207     | 187   | 433      | 362     | 187   | 670        | 470     | 208   | -         | -       | -     |
| CM5022R800R-10 | 4           | 80                                                                    | 95      | 102   | 174      | 190     | 173   | 304        | 334     | 257   | 389       | 446     | 283   |
| CM5022R151R-10 | 4           | 150                                                                   | 165     | 167   | 292      | 311     | 222   | 490        | 448     | 226   | 674       | 535     | 229   |
| CM5022R201R-10 | 4           | 200                                                                   | 206     | 188   | 433      | 362     | 187   | 670        | 470     | 208   | 945       | 499     | 212   |

# Common Mode Array, Series 22 Impedance

## Part Impedance

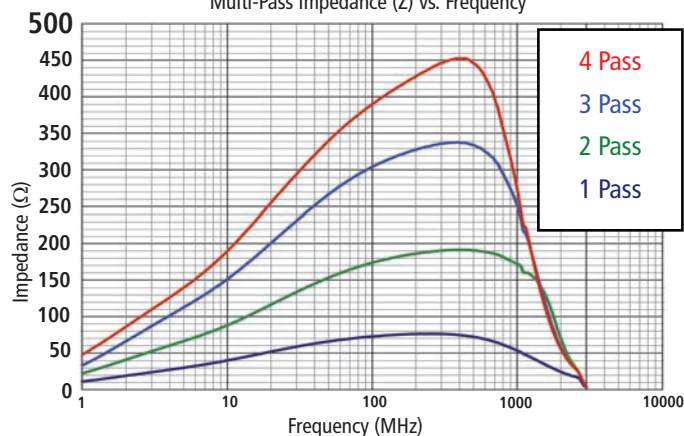
Normal (Differential) / Open / Common



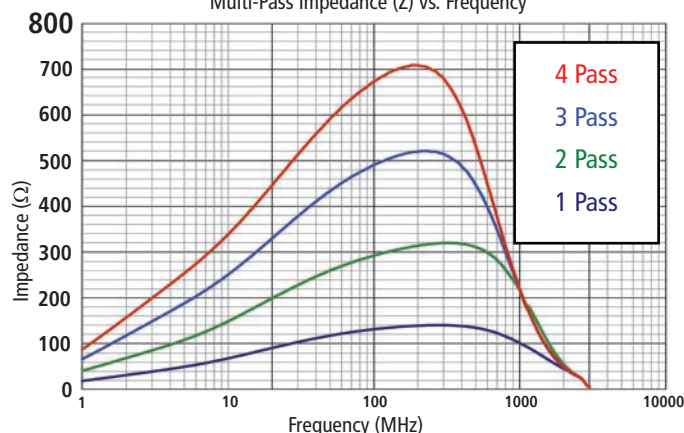
## Multi-Pass Impedance

(for multiple pass board layout options)

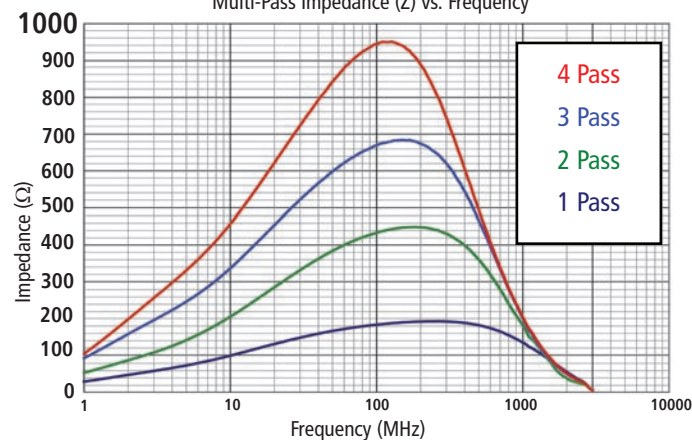
CM2722R800R-10, CM3822R800R-10, CM5022R800R-10  
Multi-Pass Impedance ( $Z$ ) vs. Frequency



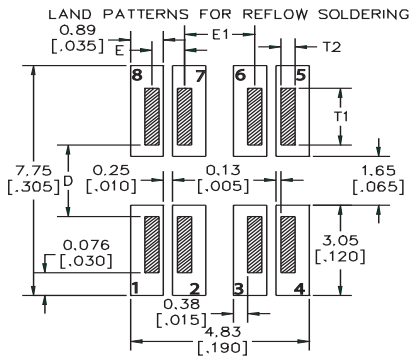
CM2722R151R-10, CM3822R151R-10, CM5022R151R-10  
Multi-Pass Impedance ( $Z$ ) vs. Frequency



CM2722R201R-10, CM3822R201R-10, CM5022R201R-10  
Multi-Pass Impedance ( $Z$ ) vs. Frequency

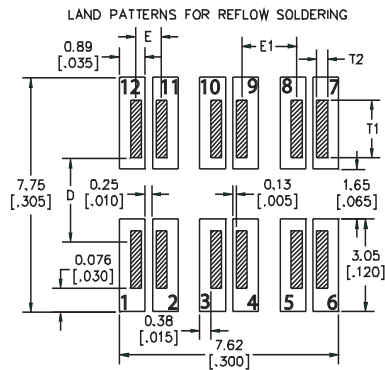


## CM2722



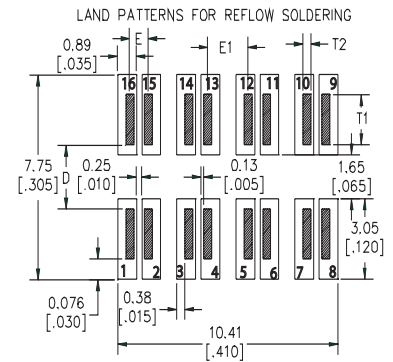
\* WIRE LENGTH [ T1 = 1.91 (.075) ]

## CM3822



\* WIRE WIDTH [ T2 = 0.38 (.015) ]

## CM5022



\* WIRE THICKNESS [ T3 = 0.38 (.015) ]

(SEE FIGURE 1,2 or 3)

Laird Technologies, produces an extensive line of ferrite products for inductive and EMI filtering applications. Products include ferrite EMI cable cores, connector plates, unique common mode chokes, can-bus chokes, high current thru hole and surface mount components, impedance chip beads, surface mount inductors and toroid inductor cores.

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