

# MegaForm™ Conformable Cables

## Hand-formable Jumper Cables

CC series cable is an alternative to semi-rigid cables. These cable assemblies can be hand formed in-place and eliminate the cost of design and drawings which semi-rigid cables would require. Applications include cabinet interconnects, systems integration and "on the fly" bending.

### Electrical Data

|                                         |        |                              |
|-----------------------------------------|--------|------------------------------|
| <b>Maximum Frequency:</b>               | CC086: | 40.0 GHz                     |
|                                         | CC141: | 26.5 GHz                     |
| <b>Impedance:</b>                       |        | 50 $\Omega$ nominal          |
| <b>Propagation Velocity:</b>            |        | 69.5% nominal                |
| <b>Time Delay:</b>                      |        | 1.46 ns/ft (4.79 ns/m)       |
| <b>Shielding Effectiveness:</b>         |        | -110 dB minimum (cable only) |
| <b>Dielectric Withstanding Voltage:</b> | CC086: | 1.5 kV at 60 Hz              |
|                                         | CC141: | 1.9 kV at 60 Hz              |
| <b>Capacitance:</b>                     |        | 29.5 pF/ft ( 96.8 pF/m)      |

### Mechanical Data

|                                           |        |                               |
|-------------------------------------------|--------|-------------------------------|
| <b>Finished Outer Diameter:</b>           | CC086: | 0.085 in (0.216 cm)           |
|                                           | CC141: | 0.139 in (0.353 cm)           |
| <b>Static Bend Radius:</b>                | CC086: | 0.25 in (0.635 cm)            |
|                                           | CC141: | 0.43 in (1.092 cm)            |
| <b>Weight with Standard Jacket/Armor:</b> | CC086: | 0.01 lbs/ft (0.018 kg/m)      |
|                                           | CC141: | 0.02 lbs/ft (0.030 kg/m)      |
| <b>Operating Temp. Range:</b>             |        | -85 to 392° F (-65 to 200° C) |

### Cable Construction

|                         |                                                   |
|-------------------------|---------------------------------------------------|
| <b>Inner Conductor:</b> | Solid Ag-plated<br>C-clad Steel                   |
| <b>Dielectric:</b>      | PTFE                                              |
| <b>Outer Conductor:</b> | Metallic Alloy<br>Saturated Cu Braid<br>(Pb Free) |

### Available Connectors

CC086: 2.4 mm, 2.92mm, 3.5mm, MMCX, OSP, OSSP, SMA, SMB, SMC, SMP, SSMA, SSMB, SSMP, TNC, Type N, ZMA

CC141: 2.9mm, 3.5mm, SMA, TNC, Type N

(maximum frequency dependent on cable; other connectors available)



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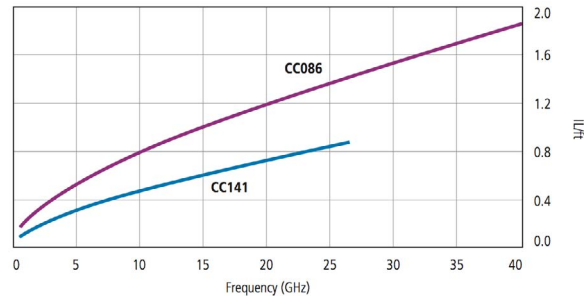
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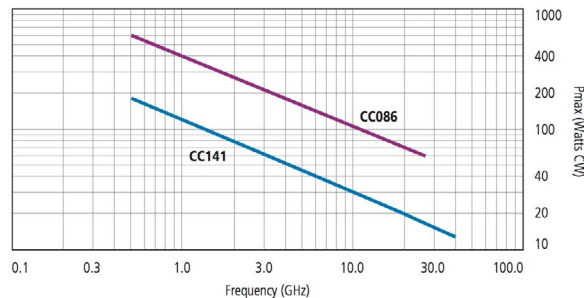
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# MegaForm™ Conformable Cables

## Insertion Loss



## Cable CW Power Handling



## Specifications

| Frequency |      | CC086       |       | CC141       |       | Conn. Loss dB | VSWR |
|-----------|------|-------------|-------|-------------|-------|---------------|------|
|           |      | Attenuation |       | Attenuation |       |               |      |
| GHz       | Band | dB/ft       | dB/m  | dB/ft       | dB/m  |               |      |
| 0.3       | UHF  | 0.117       | 0.384 | 0.063       | 0.206 | 0.006         | 1.10 |
| 0.5       |      | 0.153       | 0.501 | 0.082       | 0.270 | 0.009         |      |
| 0.8       |      | 0.195       | 0.641 | 0.106       | 0.348 | 0.012         |      |
| 1.0       | L    | 0.220       | 0.722 | 0.120       | 0.394 | 0.014         |      |
| 2.0       | S    | 0.319       | 1.047 | 0.177       | 0.579 | 0.024         | 1.15 |
| 2.4       |      | 0.352       | 1.156 | 0.196       | 0.643 | 0.027         |      |
| 3.0       |      | 0.398       | 1.307 | 0.223       | 0.731 | 0.032         |      |
| 4.0       | C    | 0.467       | 1.533 | 0.264       | 0.865 | 0.040         |      |
| 6.0       |      | 0.587       | 1.927 | 0.336       | 1.102 | 0.055         |      |
| 8.0       | X    | 0.693       | 2.273 | 0.400       | 1.314 | 0.070         | 1.20 |
| 10.0      |      | 0.789       | 2.588 | 0.460       | 1.510 | 0.084         | 1.25 |
| 12.4      |      | 0.896       | 2.938 | 0.527       | 1.730 | 0.101         | 1.30 |
| 15.0      | Ku   | 1.004       | 3.293 | 0.596       | 1.956 | 0.118         |      |
| 18.0      |      | 1.121       | 3.677 | 0.672       | 2.203 | 0.139         | 1.35 |
| 20.0      | K    | 1.195       | 3.922 | 0.720       | 2.362 | 0.152         |      |
| 22.0      |      | 1.268       | 4.159 | 0.767       | 2.517 | 0.165         |      |
| 24.0      |      | 1.338       | 4.390 | 0.813       | 2.669 | 0.178         |      |
| 26.5      |      | 1.423       | 4.670 | 0.870       | 2.854 | 0.194         |      |
| 28.0      | Ka   | 1.473       | 4.834 | -           | -     | 0.204         | 1.40 |
| 30.0      |      | 1.539       | 5.049 | -           | -     | 0.217         |      |
| 32.0      |      | 1.603       | 5.260 | -           | -     | 0.230         |      |
| 34.0      |      | 1.666       | 5.467 | -           | -     | 0.243         | 1.45 |
| 36.0      |      | 1.729       | 5.671 | -           | -     | 0.256         |      |
| 40.0      |      | 1.850       | 6.070 | -           | -     | 0.281         |      |

Note: Typical Insertion Loss dB = (Attenuation)(Length) + 2(Conn. Loss)  
 Attenuation at any frequency =

CC086:  $(0.20638 \times \sqrt{\text{freq GHz}}) + (0.1362 \times \text{freq GHz})$

CC141:  $(0.10819 \times \sqrt{\text{freq GHz}}) + (0.01181 \times \text{freq GHz})$



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