



General Information

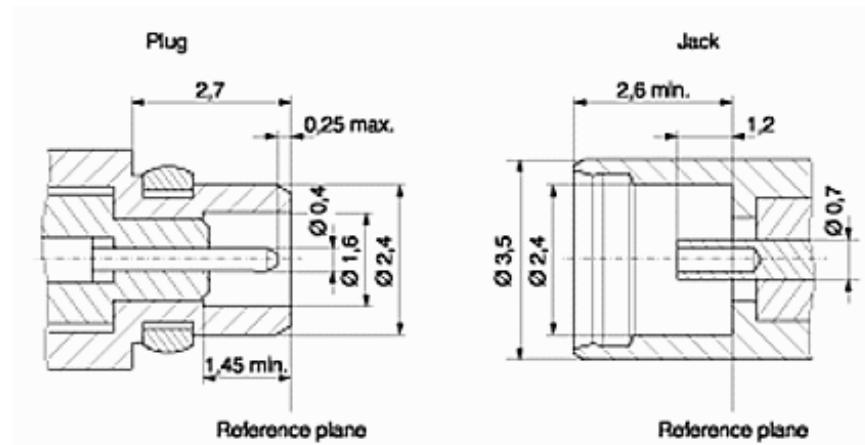
MMCX RF Connectors

General

Micro miniature connectors series MMCX (size 0.7/1.6; CECC 22340) are primarily intended for applications where minimum dimensions and space-saving design are required. The connectors are suitable for use up to 6 GHz and are provided with a reliable snap-on coupling. Series MMCX connectors are easy and fast to assemble.

This connector program contains straight and right angled variants for cable or solder connection and SMD connectors for surface mounting technology onto PC boards.

Interface Dimensions



Technical Data

Electrical and mechanical characteristics in accordance with CECC 22340

Characteristic impedance: 50 Ohms

Frequency range: up to 6 GHz

Reflection factor¹, flexible cables:

- straight connector: r Equal to or less than 0.10
- angle connector: r Equal to or less than 0.15

Insulation resistance:

- initial value: Equal to or greater than 1 G Ohm
- after stressing: Equal to or greater than 500 M Ohms

Inner conductor contact resistance after stressing: Equal to or less than 15 m Ohms

Outer conductor continuity after stressing: Equal to or less than 7.5 m Ohms

Voltage proof (at sea level): 500 V, 50 Hz

Working voltage (at sea level):

flexible cables (RG 178): 170 V, 50 Hz
semi-rigid cables (RG 405): 250 V, 50 Hz

Screening effectiveness²: Equal to or more than 60 dB

Engagement (axial force): 15 N max.

Separation: 6 N min./15 N max.

Tensile strength of cable clamping device:

RG 178: 32 N min.
RG 405: 100 N min.

Service life: 500 cycles

Climatic category: 55/155/21

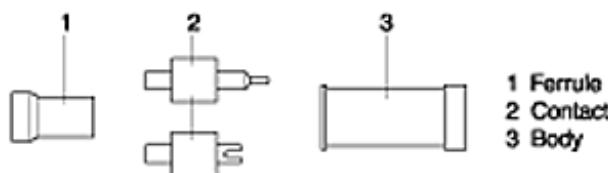
¹Guideline values, depending on cable type and connector style.

²Straight connector; 1 GHz.

Assembly Instructions - Survey

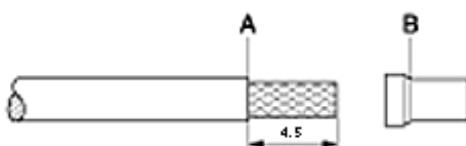
| Part No. | Cable | Assembly Instructions (See below) |
|-----------|--------|--------------------------------------|
| 1393677-1 | RG 178 | MV 1 |
| | RG 196 | |
| 1393677-2 | RG 405 | MV 3 |
| 1393677-3 | RG 178 | MV 2 |
| | RG 196 | |
| 1393677-4 | RG 405 | MV 4 |

Assembly Instruction MV 1



A Prepare cable (RG178, RG196).

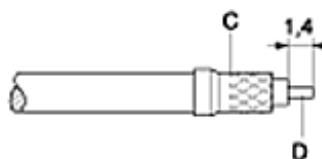
B Push ferrule (1) onto braiding up to stop.



C Bend back braiding over ferrule (1). Remove projecting screen wires.

D Strip cable.

Note: Inner conductor must not be damaged.



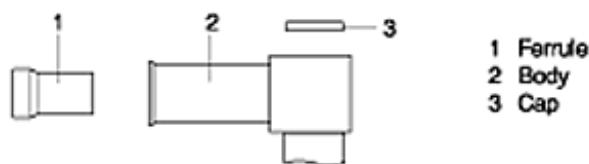
E Push contact (2) onto cable inner conductor up to the cable dielectric and crimp on with square crimping tool 1393524-4 (0.75sq.).



F Insert cable into body (3) and crimp on with crimping tool 1393524-4 (2.67 hex).



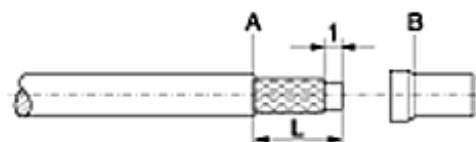
Assembly Instruction MV 2



A Prepare cable (RG178, RG196).

| Connector Style | Dim. L (mm) |
|-----------------|-------------|
| 1393677-3 | 5.0 |

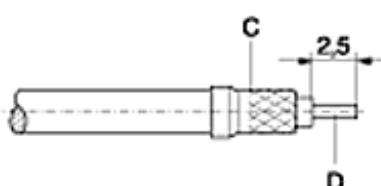
B Push ferrule (1) onto braiding up to stop.



C Bend back braiding over ferrule (1). Remove projecting screen wires.

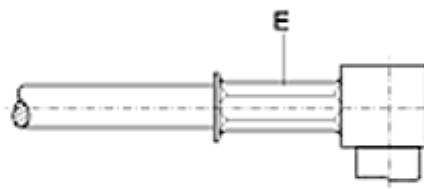
D Strip cable.

Note: Inner conductor must not be damaged.

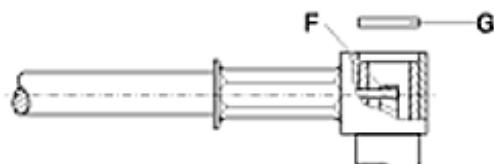


E Insert cable into body (2) and crimp on with crimping tool 1393524-4 (2.67 hex).

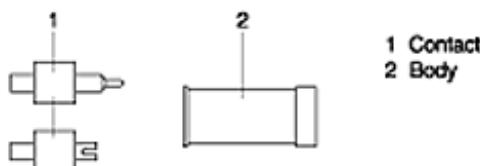
F Solder inner conductor.



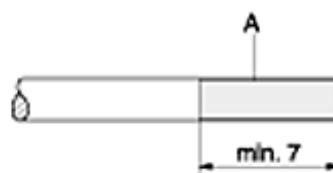
G Press cap (3) into body.



Assembly Instruction MV 3



A Dip-tin cable jacket.



B Strip cable, inner conductor must not be damaged.



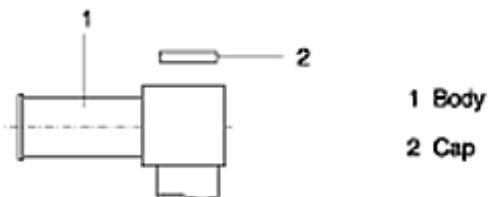
C Push contact (1) onto cable inner conductor up to the cable dielectric and crimp on with square 0.75 A/F.



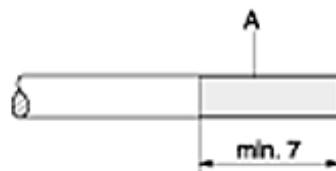
D Insert cable in body (2). Solder cable jacket and body all around.



Assembly Instruction MV 4



A Dip-tin cable jacket.

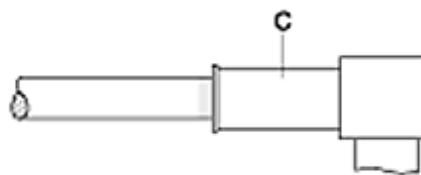


B Strip cable, inner conductor must not be damaged.

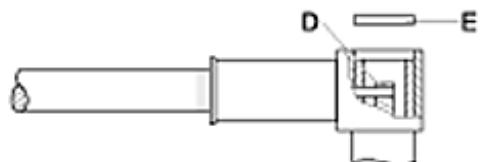


C Insert cable into body (1). Solder cable jacket and body all around.

D Solder inner conductor



E Press in cap (2) into body.



Installation Guideline for Solder Pad Layout on SMD Surface Mount Connectors

