



# TECHNICAL DATA SHEET

## 50 ohm Connectors for RF Cables

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cable

# Connector 3/8" A for EC2A-50-HF (5082A)

### FEATURES

- **Low reflection coefficient (up to 6 GHz)**
- **Low PIM level**
- **High contact force through inner contacts made in a high-strength copper alloy**
- **Watertight (IP67/IP68)**
- **Corrosion resistant**
- **Quick trimming tool for cable preparation**
- **One piece „screw on and tighten it“**



43MB38A

The connectors are designed according the standard interface 4.3-10. Contact components are silver or trimetal plated to minimize insertion loss and passive intermodulation products; mechanical parts are nickel plated for heavy-duty handling and best corrosion resistance. Watertightness is achieved simultaneously on the outer conductor and on the jacket by using a special silicone gasket. This watertight solution allows the use of ours connectors in the toughest environmental conditions. For a cost effective, easy and reliable installation, special trimming tools are recommended.

### SPECIFICATIONS

| Connector type                                     | 4.3-10 male                                                           |
|----------------------------------------------------|-----------------------------------------------------------------------|
| <b>Electrical specifications</b>                   |                                                                       |
| • Nominal impedance [ $\Omega$ ]                   | 50                                                                    |
| • Reflection coefficient @ 3 GHz                   | $\geq 34$ dB                                                          |
| • Insulation resistance [ $G\Omega$ ]              | $\geq 5$                                                              |
| • Test voltage (at sea level) [kV rms, 50Hz]       | 2.5                                                                   |
| • Working voltage (at sea level) [kV rms, 50Hz]    | 1                                                                     |
| • Max. peak power [kW]                             | 22.5*                                                                 |
| • Screening effectiveness up to 1 GHz [dB]         | $> 128$                                                               |
| • Contact resistance (outer contact) [ $m\Omega$ ] | $\leq 1$                                                              |
| • Contact resistance (inner contact) [ $m\Omega$ ] | $\leq 1$                                                              |
| • PIM ratio (2 x 20 W carrier) [dBc]               | $\leq -155$ (Typical -163)                                            |
| <b>Mechanical specifications</b>                   |                                                                       |
| • Torque of coupling mechanism [Nm]                | 5 to 8                                                                |
| • Tensile strength of coupling mechanism [N]       | 500                                                                   |
| • Cable retention [N]                              | $> 500$                                                               |
| • Mechanical endurance (Nr of couplings)           | $\geq 500$                                                            |
| • Outer diameter [mm]                              | 22                                                                    |
| • Length [mm]                                      | 56                                                                    |
| • Weight [g]                                       | 103                                                                   |
| <b>Environmental specifications</b>                |                                                                       |
| • Temperature range                                | -40 °C to +85 °C (-40 °F to +185 °F)                                  |
| • Degree of protection                             | IP67/IP68 (mated connectors)                                          |
| • Climatic & moisture resistance test              | acc. ANSI/SCTE 72 2002 R2007 (-40 °C / +60 °C @ 75% r.h.) for 2 weeks |
| • Corrosion resistance test                        | acc. IEC 60068-2-11-Test Ka                                           |
| • Vibration test                                   | acc. IEC 60068-2-6 (10 to 500 Hz @ 10 G)                              |
| <b>Materials</b>                                   |                                                                       |
| • Externals parts                                  | Brass with passivated silver or trimetal or nickel plating            |
| • Outer contact                                    | Brass with passivated silver or trimetal plating                      |
| • Inner contact                                    | Passivated silver plated high-strength copper alloy and brass         |
| • Dielectric                                       | TPX / PTFE                                                            |
| • O-rings                                          | High quality silicone                                                 |
| <b>Cable dimensions [mm]</b>                       |                                                                       |
| • Inner conductor (helicoids) inner diameter       | 3.01 to 3.09                                                          |
| • Outer conductor outer diameter                   | 9.45 to 10.15                                                         |
| • Jacket outer diameter                            | 10.8 to 11.6                                                          |
| <b>Order codes</b>                                 |                                                                       |
| • Connector code                                   | 43MB38A                                                               |
| • Special trimming tool                            | SPTC50B38A                                                            |

\* 4.3-10 interface according to IEC61169-54