



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk **EUPEN** AG

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cable

Connector 1-5/8" for EC7-50-A (5438A) and EA7-50 (5437)

FEATURES

- Low reflection coefficient (up to 2.5 GHz)
- Low PIM level
- High force integrated center contact made with high-strength copper alloy
- Completely monobloc
- Silver plated
- Watertight (IP67/IP68)
- Corrosion resistant
- Quick trimming tool
- One piece "fit on and tighten it"
- O-ring or sealant injection for watertightness on the cable



NF50A158MPA



716MV158MPA

The connectors are specially designed, for low insertion loss "A" series corrugated copper cables as well as corrugated aluminium cables. It is a completely monobloc design where the center contact is made with an integrated high force elastic contact in a high-strength copper alloy. Contact components are silver plated to minimize insertion loss and passive intermodulation products; mechanical parts are nickel plated for heavy-duty handling and best corrosion resistance. The watertightness on the cable is made using silicone o-rings or silicone sealant injection, filling up all interstices, to resist in the toughest environmental conditions. The completely monobloc design and the trimming tool makes the installation quicker, more easy and effective.

SPECIFICATIONS

Connector type	N-male	N-female	7-16 male	7-16 female
Electrical specifications				
• Nominal impedance [Ω]		50		
• Reflection coefficient @ 2.5 GHz		$\leq 0,02$		
• Insulation resistance [$G\Omega$]	≥ 5			≥ 10
• Test voltage (at sea level) [kV rms, 50Hz]	2.5			4
• Working voltage (at sea level) [kV rms, 50Hz]	1			2.7
• Max. peak power [kW]	10			40
• Screening effectiveness up to 1 GHz [dB]		> 128		
• Contact resistance (outer contact) [$m\Omega$]		$\leq 0,5$		
• Contact resistance (inner contact) [$m\Omega$]		≤ 1		
• PIM ratio (2 x 20 W carrier) [dBc]		≤ -155 (Typical -163)		
Mechanical specifications				
• Torque of coupling mechanism [Nm]	8			30
• Tensile strength of coupling mechanism [N]	400			1000
• Cable retention [N]	> 400			> 1000
• Mechanical endurance (Nr of couplings)		≥ 500		
• Outer diameter [mm]		63		
• Length [mm]				94
• Weight [g]	722	714	734	728
Environmental specifications				
• 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)			
Materials				
• Externals parts	Passivated silver plated or electroless nickel plated brass			
• Outer contact	Passivated silver plated brass			
• Inner contact	Passivated silver plated high-strength copper alloy and brass			
• Dielectric	TPX			
• O-rings	High quality silicone			
Cable dimensions [mm]				
• Inner conductor outer diameter	17.5 to 18.4			
• Inner conductor (helicooids) inner diameter	14.3 to 15.2			
• Foam dielectric outer diameter	42.7 to 44.1			
• Outer conductor outer diameter	46.3 to 46.9			
• Jacket outer diameter	49.4 to 50.9			
Order codes				
• Sealant injection connector type	NM50A158MPA	NF50A158MPA	716MA158MPA	716FA158MPA
• O-ring connector type	NM50V158MPA	NF50V158MPA	716MV158MPA	716FV158MPA
• Special trimming tool	SPTC50AV158M – Blue color			
• Special silicone sealant kit	SIL 744			