



TECHNICAL DATA SHEET

50 ohm Connectors for RF Cables

Kabelwerk | **EUPEN** AG

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cable

Connector 7/8" for EC5-50-A (5228A) and EA5-50 (5227)

FEATURES

- Low reflection coefficient (up to 2.5 GHz)
- Low PIM level
- High contact force through inner contacts made in a high-strength copper alloy
- Silver plated
- Watertight (IP67/IP68)
- Corrosion resistant
- Quick trimming tool for cable preparation
- One piece "fit on and tighten it"
- Sealant injection or o-ring sealing



NM50A78MA



716FV78MA

The connectors are designed according the standard interfaces as N or DIN 7/16. 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 is made using silicone o-rings or silicone sealant injection, filling up all interstices to resist in the toughest environmental conditions. In addition of this proved quality the 7/8" connectors offering excellent electrical specifications. For a cost effective, easy and reliable installation, special trimming tools are recommended.

SPECIFICATIONS

Connector type	N-male	N-female	7-16 male	7-16 female
Electrical specifications				
• Nominal impedance [Ω]			50	
• Reflection coefficient @ 2.5 GHz			≤ 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 Ω]			≤ 0.7	
• Contact resistance (inner contact) [m Ω]			≤ 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]			34.5	
• Length [mm]	78	73	71	71
• Weight [g]	182	173	200	192
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 inner diameter	8.1 to 8.5			
• Outer conductor outer diameter	24.6 to 25.2			
• Jacket outer diameter	27.5 to 28.5			
Order codes				
• Sealant injection connector type	NM50A78MA	NF50A78MA	716MA78MA	716FA78MA
• O-ring connector type	NM50V78MA	NF50V78MA	716MV78MA	716FV78MA
• Special trimming tool	SPTC50AV78M – Blue color			
• Special silicone sealant kit	SIL 744			