



Overview

The AUTOMATE® Mini-FAKRA connector series, the latest in automotive interconnect technology, is a space-conscious, high-performance interface central to the next generation of vehicle applications. Supporting up to 20 Gbps data transmission, AUTOMATE connectors reduce installation space requirements by up to 80% compared to previous FAKRA products. Color coded housings provide visual guidance during the assembly process and mechanical keying options prevent mis-mating of connectors.

Features and Benefits

- Reduced package size, ideal for compact spaces
- Supports data rates up to 20 Gbps
- Low Engagement Forces
- Impact Resistant

Applications

- 360° Surround View Camera
- ECUs and Compute Modules
- Autonomous Vehicles
- Advanced Driver Assistance Systems (ADAS)
- GPS Navigation
- 3D Instrument Cluster
- High Bandwidth Infotainment
- Remote Start and Vehicle Controls
- V2X Communication

Amphenol RF

Four Old Newtown Road
Danbury, CT 06810

For more information visit www.amphenolrf.com
or call 800.627.7100

Ordering Information

AUTOMATE Type A PCB Connectors

Part Number	Description
FM4-NARP-PCB-1	Quad Port Right Angle PCB Plug, A Code
FM4-NBRP-PCB-1	Quad Port Right Angle PCB Plug, B Code
FM4-NCRP-PCB-1	Quad Port Right Angle PCB Plug, C Code
FM4-NDRP-PCB-1	Quad Port Right Angle PCB Plug, D Code
FM4-NZRP-PCB-1	Quad Port Right Angle PCB Plug, Z code

Note: See Key Code Chart on reverse side for all available codes.
Contact factory for mating assembly information.

Custom Solutions

AUTOMATE Cable Assemblies - Application specific solutions designed per customer requirements

AUTOMATE Sealed Solutions - Increased protection for harsh environment applications

Contact Amphenol RF sales for additional information

Amphenol® RF

Technical Specifications (Connectors)

Electrical

Impedance	50 Ω Nominal	
Frequency Range	DC - 9 GHz	
Return Loss	1.12 (-25dB) Max. @ DC - 3 GHz	
	1.22 (-20dB) Max. @ 3 GHz - 6 GHz	
	1.67 (-12dB) Max. @ 6 GHz - 9 GHz	
Dielectric Withstanding Voltage	750 VRMS	
Current Rating	≤2A DC	
Contact Resistance	Center Contact	<5mΩ
	Outer Contact	<5mΩ

Mechanical

Mating Cycles	25 Cycles Min.
Engagement Force	≤50N
Disengagement Force	≥5N

Environmental















Temperature Range	-40°C to +105°C
RoHS	Compliant with exemption 6C

Materials

Body	Zinc Alloy, Matte Tin Plated
Outer Contact	Brass, Matte Tin Plated
Center Contact	Copper Nickel Alloy, Gold Plated
Housing	PA4T
Insulator	LCP

Note: Technical specifications are typical and may vary by specific part number and design. See component drawing for additional details.

KEY CODE CHART

Keying							
Code	A	B	C	D	E	F	Z
Color	Jet Black 	Cream 	Signal Blue 	Claret Violet 	Leaf Green 	Nut Brown 	Water Blue 

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