

### 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

### 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

Four Old Newtown Road  
Danbury, CT 06810

For more information visit [www.amphenolrf.com](http://www.amphenolrf.com)  
or call 800.627.7100

# Amphenol® RF

## Technical Specifications (Connectors)

### Electrical

Impedance	50 $\Omega$ 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	$\leq 2A$ DC	
Contact Resistance	Center Contact	$< 5m\Omega$
	Outer Contact	$< 5m\Omega$

### Mechanical

Mating Cycles	25 Cycles Min.
Engagement Force	$\leq 50N$
Disengagement Force	$\geq 5N$

### 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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