Amphenol® RF

Mini-FAKRA Type A Connector Series

High-Bandwidth 50 Ohm RF Interconnect

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.

This compact solution is available in single, dual and quad-port configurations in a variety of standard key codes. These connectors are intermateable with all industry standard options.

Features and Benefits

- Compact, modular housing
- Multiport configuration
- Saves installation space by up to 80%
- Low engagement and disengagement forces
- Impact resistance

Applications

- 360-degree surround view cameras
- 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

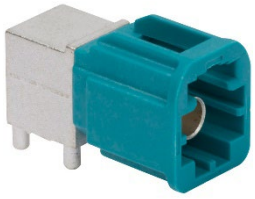
AUTOMATE

Ordering Information

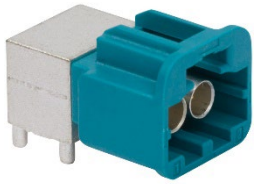
AUTOMATE Type A Mini-FAKRA PCB Connectors

Part Number	Description
FM1-NXRP-PCB-1	AUTOMATE Type A Mini-FAKRA Single-Port PCB Right-Angle Plug
FM2-NXRP-PCB-1	AUTOMATE Type A Mini-FAKRA Dual-Port PCB Right-Angle Plug
FM4-NXRP-PCB-1	AUTOMATE Type A Mini-FAKRA Quad-Port PCB Right-Angle Plug
FM4-NXSP-PCB-1	AUTOMATE Type A Mini-FAKRA Quad-Port PCB Straight Plug

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



FM1-NXRP-PCB-1



FM2-NXRP-PCB-1

FM4-NXRP-PCB-1

FM4-NXSP-PCB-1

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
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Danbury, CT 06810

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

Amphenol® RF

Technical Specifications

Electrical

Impedance	50Ω Nominal
Frequency Range	DC – 9 GHz
Return Loss	1.12 (-25dB) Max @ DC – 3 GHz
	1.22 (-20dB) Max @ DC – 3 GHz
	1.67 (-12dB) Max @ DC – 3 GHz
Dielectric Withstanding Voltage	750 VRMS (800 VRMS for Single & Dual Versions)
Current Rating	≤2A DC
Center Contact Resistance	<5mΩ
Outer Contact Resistance	<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 Finish
Outer Contact	Brass, Matte Tin Finish
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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