

HFM – High-Speed FAKRA Mini Coaxial Cable Solution

The High-speed FAKRA Mini (HFM) Coaxial Cable Solution delivers 20 GHz of data speed for the connected vehicle, supporting any modern radar, camera, lidar or sensor applications

Features and Advantages

Robust Crimp Termination

26AWG 50 Ohm coax cable terminates both RG174 or RTK031 wire, providing a robust crimp termination of coax cable to the terminal.

Latch/CPA Design

Easy-to-use positive latch with a generous CPA push area satisfies USCAR or LV214 specs

Reinforced Cable Housing

Complete with ISL and locking CPA latch feature to prevent terminal backout

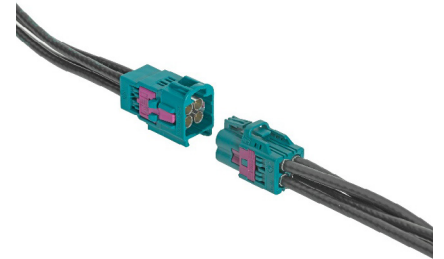
Fully-shielded Coaxial Cable Contacts

Provide optimal SI and EMI

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HFM Quad Cable Jack (Male) to PCB Plug (Female)



HFM Quad Cable Plug (Female) to Cable Jack (Male)

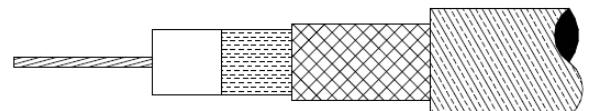
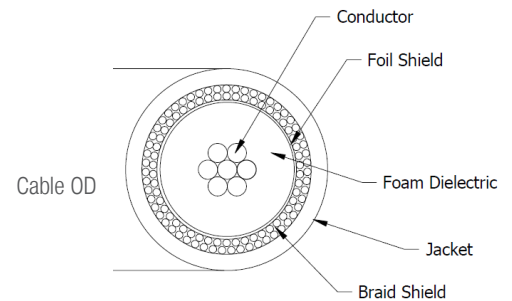
Versatile, High-Performing PCB Header

360° fully-diecast shielded-header core optimizes EMI/EMC Performance. Versatile options for circuit count, sealing, and right angle, vertical and inline options

Features and Advantages (Supported Coaxial Cable Types)

HFM Connector will support different coaxial cable types and outside diameters

Coaxial Cable Type	RG174	RTK031	RTK044
Cable Outside Diameter	2.80mm	3.30mm	3.60mm
Wire Size	26AWG	23AWG	19AWG
Conductor Size / Construction	0.14mm ² / 7 stranded Cu	0.40mm ² / 7 stranded Cu	0.85mm / Stranded Cu
Dielectric Type	XPE/PP	Foam PP	Foam PP
Impedance	50 Ohm	50 Ohm	50 Ohm
Screen Type	Foil + Braid	Foil + Braid	Foil + Braid
Temperature Rating	-40 to 105°C	-40 to 105°C	-40 to 105°C

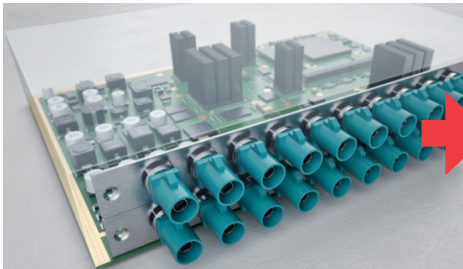


PRELIMINARY

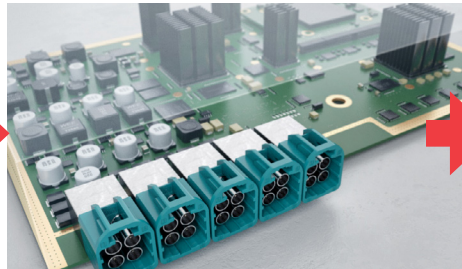
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Past

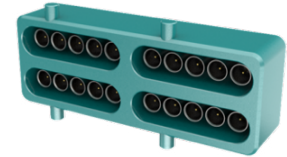


Present



Future

80% space savings*



*compared to current connector systems

Applications

Automotive/

Commercial Vehicle/

Construction & Ag Equipment

High Speed Cable Networking

Sensor Device Connectivity

Gateway / Switch Module

Autonomous Driving (ADAS)

GPS / Infotainment

Camera / Surround View

High Resolution Displays 4K

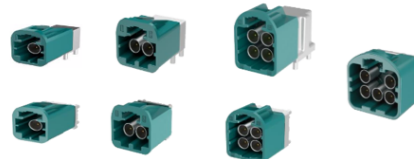
Truck

Bus

Taxi/Shared Ride fleets

Self Driving tractors for farming

Self Driving Construction/mining



PCB Connector



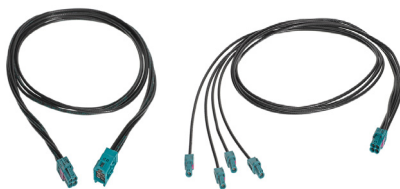
High Performance Connector



Cable Connector



Sealed Connector



Cable Assemblies & Molex Tempflex raw cable

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Specifications

REFERENCE INFORMATION

Packaging: TBD
UL File No.: TBD
CSA File No.: TBD
Mates With: TBD
Use With: TBD
Terminal Used: TBD
Designed In: mm
RoHS: Yes
Halogen Free: TBD
Glow Wire Compliant: TBD

ELECTRICAL

Voltage (max.): 36V
Current (max.): 1.5A
Contact Resistance: 20 mOhms
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 MOhms

MECHANICAL

Contact Insertion Force: TBD
Contact Retention to Housing: TBD
Insertion Force to PCB: TBD
Mating Force: TBD
Unmating Force: TBD
Durability (min.): TBD

PHYSICAL

Housing:
Header – Nylon, PA10-GF50
Cable Plug – Nylon, PBT-GF20
Contact: Phosphor Bronze
Plating: Gold over Nickel
Contact Area — Gold
Solder Tail Area — Tin over Nickel
Underplating — Nickel
PCB Thickness: 1.57mm
Operating Temperature: -40 to +105 °C

Note: Molex reserves the right to delay or cancel production of the depicted product without additional notice. Please contact your Molex customer service representative for product availability.

www.molex.com/link/highspeedfakramini.html

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