

# MX-DaSH Wire-to-Wire Connector System >

The MX-DaSH Wire-to-Wire Connector System reduces weight, size and cost requirements; simplifies assembly operations; and supports zonal architecture by combining power circuits, ground circuits and high-speed data connections into one connector that can replace multiple traditional connectors in vehicle applications.



## ADVANTAGES AND FEATURES

### Optimizes wiring harness by combining multiple connectors into one connector

The design incorporates power, signal and data connections using 1.20, 1.50 and 2.80mm terminals as well as High-Speed FAKRA Mini (HFM) modules for high-speed data transmission.

### Delivers reliable operation in harsh conditions through the available T2/V1/S3-rated sealing and the mat seal

The mat seal eliminates the need for individual cable seals, providing reduced package size and reducing the cost of connectors subject to harsh conditions inside or outside the cabin.

### Ensures secure mating and reliable connectivity

Features include an available independent secondary lock (ISL), pin protection plate (PPP) and blade protection.

Configurations	Sealed or unsealed wire-to-wire designs
Terminal Sizes	1.20, 1.50, 2.80mm
Data Connections	HFM®, H-MTD®
Validation Specifications (Depends on Connector Variant)	USCAR2 rev8 USCAR17 rev5 USCAR49 GMW3191 2019B217050 revE (Peugeot) IEC 62153-4-3:2013 (E) IEC 62153-4-7:2015 T1/V1/S1 (unsealed) T2/V1/S3 (sealed)

### Eases implementation and incorporation into designs

Using complete assemblies for male and female housings minimizes assembly operations.

### Prevents mis-mating and minimizes assembly errors

Four unique keyways are available to ensure proper orientation.

## MARKETS AND APPLICATIONS

### Automotive

- Autonomous driving modules
- Computing modules
- Camera systems
- Gateway/switch modules
- GPS devices
- High-resolution displays (4K displays)
- High-speed cable networking
- Sensor-device connectivity
- Surround-view cameras
- LiDAR devices

### Commercial Vehicle

- GPS devices
- Infotainment devices



Autonomous Driving Modules



Camera Systems



GPS Devices

# MX-DaSH Wire-to-Wire Connector System

## SPECIFICATIONS

### Reference Information

Packaging: Bulk pack

Female Receptacles/Male Blade Connectors:

Housing – up to 31 circuits + data

Terminal – 1.20mm or 1.50mm

(power or signal), or 2.80mm (power)

Data – HFM or H-MTD

Wire Sizes for Terminals:

1.20mm terminal – 0.35 to 1.50mm<sup>2</sup> wire

1.50mm terminal – 0.50 to 1.50mm<sup>2</sup> wire

2.80mm terminal – 2.00 to 2.50mm<sup>2</sup> wire

Mating Requirement: Keyed pair

Designed in: Millimeters

RoHS: Yes

### Mechanical

Terminal Retention Force with Independent

Secondary Lock (ISL): 100N (min.)

Mating Force (max.): 70N

Unmating Force (max.): 70N

### Electrical

Voltage (max.): 250V

Current (max.): Refer to derating curve

Insulation Resistance: 100 Megohms (min.)

### Physical

Housing: Polyamide (PA66)

Contact: Tin

Vibration Environment:

Acceleration Rate – 9G (88m/sec<sup>2</sup>)

Frequency – 20 to 200 Hz

Sealing Performance (Sealed Versions):

Initial – 50kPa (min.)

After Endurance Test – 30kPa (min.)

High-Pressure Washing Test – IP69K

Operating Temperatures: -40 to +120°C

or -40 to +85°C (varies by connector type)

## WIRE-TO-WIRE CONNECTOR OPTIONS

	Sealed 10+2-Way and 10+1+1-Way Specifications	Unsealed 31+1-Way Specifications	Unsealed 22+1-Way Specifications	Sealed 15+1-Way Specifications
Design	10+2-Way Connector, 10+1+1-Way Connector	31+1-Way Connector	22+1-Way Connector	15+1-Way Connector
Terminal Size	1.50mm (power and ground circuits) + HFM < 1 Gbps	1.20mm/2.80mm (power and ground circuits) + HFM < 1 Gbps	1.20mm (power and ground circuits) + HFM < 1 Gbps	1.20mm (power and ground circuits) + HFM < 1 Gbps
Circuits	10 x 1.50mm, 2 x HFM or 1 x 2.80mm + 1 x HFM	19 x 1.20mm (0.75mm <sup>2</sup> ), 8 x 1.20mm (1.50mm <sup>2</sup> ), 4 x 2.80mm, 1 x HFM	22 x 1.20mm, 1 x HFM	15 x 1.20mm, 1 x HFM
Validation Specifications	USCAR2 rev8 USCAR17 rev5 USCAR49 T2/V1/S2	B217050 revE (Peugeot) IEC 62153-4-3:2013 (E) IEC 62153-4-7:2015	USCAR2 rev8 USCAR17 rev5 USCAR49	GMW3191 T2/V1/S3 USCAR2 rev8 USCAR17 rev5 USCAR49

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