

MCA[®] & MCAH[®] MINI COAX AUTOMOTIVE

5G Miniaturized Highspeed multi-pole RF Solutions

- » Compact design solutions
- » High speed data transmission up to 20 Gbit/s
- » Excellent radio frequency (RF) performance up to 15 GHz
- » Scalable multi-pole connections



MCA[®] & MCAH[®] Mini Coax Automotive

Your Enabler for autonomous driving

The newly developed MCA[®] & MCAH[®] series by IMS Connector Systems complies with the high requirements set by the automotive industry for coaxial interconnections in high speed data transmission up to 20 Gbit/s and frequency range up to 15 GHz.

To ensure safety, driver assistance systems and autonomous driving require higher rates of real-time data in order to calculate routes continuously, recognize and classify objects, and determine spatial distances. High data volumes from different cameras, various sensors and navigation sources have to be aggregated.

This new MCA[®] & MCAH[®] connector series is compliant with the new Mini-Coax Interface from VW, aka Mini-FAKRA.



Product Features

- » Compact design
- » Significantly smaller than FAKRA in width and height
- » High speed data transmission up to 20 Gbit/s
- » Excellent RF performance up to 15 GHz
- » Scalable multi-pole connections
- » Hybrid RF & LF signal combinations possible
- » Optimized footprints & SMT options available
- » Complete individual signal shielding
- » In compliance to USCAR 2 & USCAR 49

Optimized installation space

- » Save up to 80% of space compared to FAKRA
- » Replace 4 single FAKRA with 1MCA[®] & MCAH[®]



Product Features

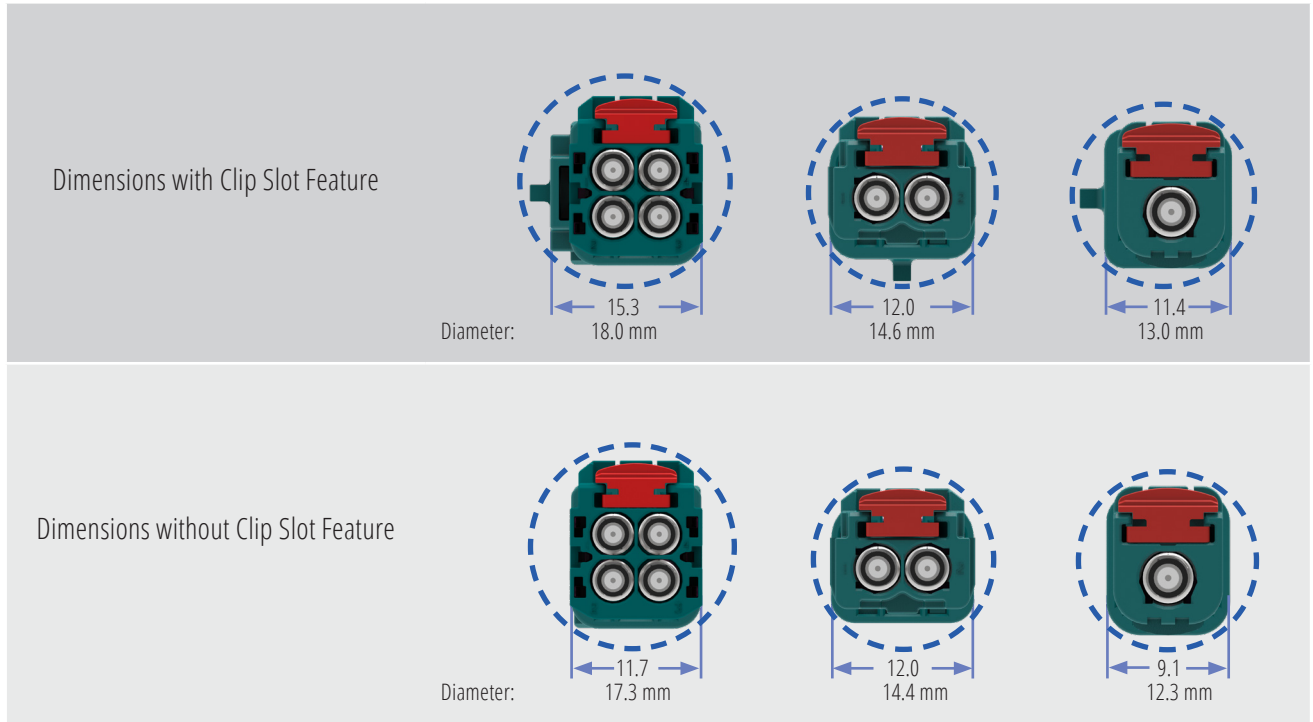
- » Common ISL (Independent Secondary) locking for Male & Female
- » Common CPA (Connector Position Assurance) Integration
- » Various fixation clip-slot (CS) available: 7mm / 11mm / without CS
- » Pre-assembly Locking Feature for perfect terminal position
- » Cavity compatible solution based on OEM requirement
- » 100% intermate ability with mini coax market players

| | | |
|--|----------------|--|
| High safety and robust design features | 1, 2, 4 - Pole | <p>Pre-assembly locking feature for perfect terminal position</p> <p>Additional safety trough secondary Locking</p> |
| | 4 - Pole | <p>Male Housing</p> <p>Male MCA-AC Terminal Assembly</p> <p>Independent Secondary Lock</p> <p>Female Housing</p> <p>Female MCA-AC Terminal Assembly</p> <p>CPA</p> <p>Independent Secondary Lock</p> |
| | 2 - Pole | <p>Male Housing</p> <p>Male MCA-AC Terminal Assembly</p> <p>Independent Secondary Lock</p> <p>Female Housing</p> <p>Female MCA-AC Terminal Assembly</p> <p>CPA</p> <p>Independent Secondary Lock</p> |
| | 1 - Pole | <p>Male Housing</p> <p>Male MCA-AC Terminal Assembly</p> <p>Independent Secondary Lock</p> <p>Female Housing</p> <p>Female MCA-AC Terminal Assembly</p> <p>CPA</p> <p>Independent Secondary Lock</p> |



Product Features

- » Size optimized pass thru holes



APPLICATIONS

- » Autonomous Driving
- » ADAS (Advanced Driver Assistance System)
- » Camera, Radar, Lidar
- » Infotainment & Navigation
- » Next Generation WLAN (WiGig-Wireless Gigabit)
- » V2X & V2C
- » eCall services
- » GNSS (Global Navigation Sattelite Systems)

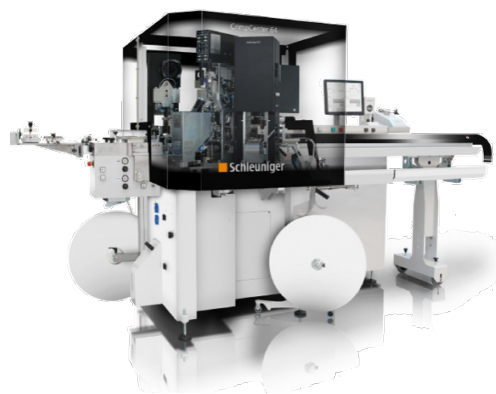









FAST, FLEXIBLE AND PRECISE PROCESS

High quality & efficiency assurance through automation

Cable assembly begins with your needs and ends with our high quality standards:
Everything comes from a single source, from prototyping to pre-series to series production.
A large selection of coaxial RF cable assemblies as well as strands, wires and cable tree assemblies are available for your individual needs.
Our worldwide locations enable cost-efficient solutions, from manual to semi-automatic to fully automatic production.
We´re always pleased to find innovative solutions to your needs and requirements. Whether solutions for explosive protection, tightness solutions from moulding technology and adhesives or sealing solutions for water, dust and helium as well as robust overmoulding solutions: We will find the right one for you!



| | Picture | Pole | Description | Locking position | Type | Style | Part number (P/N) | Packaging | Plating |
|--------------|--|------|--|------------------|----------|------------------|-------------------|----------------------------|---------|
| HEADER TYPES |  | 4 | PLUG PCB mount angle plug 4-pole | 06:00 | angle | Short Version | 5488.MCA.1X20.007 | Tape and reel packaging | 7 = Sn |
| |  | | PLUG PCB mount angle plug 4-pole | 12:00 | angle | Long Version | 5497.MCA.1X20.007 | Tape and reel packaging | 7 = Sn |
| |  | | PLUG PCB mount angle plug 4-pole | 12:00 | straight | - | 5370.MCA.1X10.007 | Tape and reel packaging | 7 = Sn |
| |  | 2 | PLUG PCB mount angle plug 2-pole | 12:00 | angle | - | 5649.MCA.1X20.007 | Tape and reel packaging | 7 = Sn |
| |  | 1 | PLUG PCB mount angle plug 1-pole | 12:00 | angle | - | 5648.MCA.1X20.007 | Tape and reel packaging | 7 = Sn |

Coding

Replace the X in the P/N for your required coding. Available codings:

| | | | | | | |
|---|---|---|--|---|---|---|
|  |  |  |  |  |  |  |
| A | B | C | D | E | F | Z |
| Jet black | Cream | Light blue | Claret violet | May green | Nut brown | Water blue |



MCA® Product portfolio

| Picture | Pole | Description | Cable type | CPA | Clipslot | Part number (P/N) | Packaging | Plating |
|---------|------|------------------------------|--|-------------------|-------------------------------------|---|-----------|---------|
| | 4 | JACK | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | YES YES YES | | 5802.MCA.2X10.C27 5802.MCA.2X10.C37 5802.MCA.2X10.C57 | Bulk | 7 = Sn |
| | | Cable mount jack straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | NO NO NO | | 5954.MCA.2X10.C27 5954.MCA.2X10.C37 5954.MCA.2X10.C57 | Bulk | 7 = Sn |
| | 4 | PLUG | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 7 mm YES: 7 mm YES: 7 mm | 5803.MCA.1X10.C27 5803.MCA.1X10.C37 5803.MCA.1X10.C57 | Bulk | 7 = Sn |
| | | Cable mount plug straight | | | YES: 11mm YES: 11mm YES: 11mm | 7921.MCA.1X10.C27 7921.MCA.1X10.C37 7921.MCA.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | NO: - NO: - NO: - | 5953.MCA.1X10.C27 5953.MCA.1X10.C37 5953.MCA.1X10.C57 | Bulk | 7 = Sn |
| | 2 | JACK | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | YES YES YES | | 5801.MCA.2X10.C27 5801.MCA.2X10.C37 5801.MCA.2X10.C57 | Bulk | 7 = Sn |
| | | Cable mount jack straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | NO NO NO | | 5769.MCA.2X10.C27 5769.MCA.2X10.C37 5769.MCA.2X10.C57 | Bulk | 7 = Sn |
| | 2 | PLUG | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 7 mm YES: 7 mm YES: 7 mm | 5800.MCA.1X10.X27 5800.MCA.1X10.X37 5800.MCA.1X10.X57 | Bulk | 7 = Sn |
| | | Cable mount plug straight | | | YES: 11mm YES: 11mm YES: 11mm | 7923.MCA.1X10.C27 7923.MCA.1X10.C37 7923.MCA.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | NO: - NO: - NO: - | 5768.MCA.1X10.C27 5768.MCA.1X10.C37 5768.MCA.1X10.C57 | Bulk | 7 = Sn |
| | 1 | JACK | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | YES YES YES | | 5767.MCA.2X10.C27 5767.MCA.2X10.C37 5767.MCA.2X10.C57 | Bulk | 7 = Sn |
| | | Cable mount jack straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | NO NO NO | | 5799.MCA.2X10.C27 5799.MCA.2X10.C37 5799.MCA.2X10.C57 | Bulk | 7 = Sn |
| | 1 | PLUG | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 7 mm YES: 7 mm YES: 7 mm | 5798.MCA.1X10.C27 5798.MCA.1X10.C37 5798.MCA.1X10.C57 | Bulk | 7 = Sn |
| | | Cable mount plug straight | | | YES: 11mm YES: 11mm YES: 11mm | 7925.MCA.1X10.C27 7925.MCA.1X10.C37 7925.MCA.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | NO: - NO: - NO: - | 5766.MCA.1X10.C27 5766.MCA.1X10.C37 5766.MCA.1X10.C57 | Bulk | 7 = Sn |

CABLE TYPES



| | Picture | Pole | Description | Locking Position | Type | Style | Part number (P/N) | Packaging | Plating |
|--------------|---------|------|-------------------------------------|------------------|----------|-------|--------------------|-------------------------|---------|
| HEADER TYPES | | 4 | PLUG PCB mount angle plug 4-pole | 12:00 | angle | - | 5600.MCAH.1X20.007 | Tape and reel packaging | 7 = Sn |
| | | | PLUG PCB mount plug 4-pole | 12:00 | straight | - | 5601.MCAH.1X10.007 | Tape and reel packaging | 7 = Sn |
| | | 2 | PLUG PCB mount angle plug 2-pole | 12:00 | angle | - | 5711.MCAH.1X20.007 | Tape and reel packaging | 7 = Sn |
| | | 1 | PLUG PCB mount angle plug 1-pole | 12:00 | angle | - | 5710.MCAH.1X20.007 | Tape and reel packaging | 7 = Sn |



MCAH® Product portfolio

| Picture* | Pole | Description | Cable type | CPA | Clipslot | Part number (P/N) | Packaging | Plating |
|----------|------|-----------------------------------|--|-------------------|-------------------------------------|--|-----------|---------|
| | 4 | JACK Cable mount jack straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | YES YES YES | | 7898.MCAH.2X10.C27 7898.MCAH.2X10.C37 7898.MCAH.2X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | NO NO NO | | 7824.MCAH.2X10.C27 7824.MCAH.2X10.C37 7824.MCAH.2X10.C57 | Bulk | 7 = Sn |
| | 4 | PLUG Cable mount plug straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 7mm YES: 7mm YES: 7mm | 7823.MCAH.1X10.C27 7823.MCAH.1X10.C37 7823.MCAH.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 11mm YES: 11mm YES: 11mm | 7913.MCAH.1X10.C27 7913.MCAH.1X10.C37 7913.MCAH.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | NO: - NO: - NO: - | 7901.MCAH.1X10.C27 7901.MCAH.1X10.C37 7901.MCAH.1X10.C57 | Bulk | 7 = Sn |
| | 2 | JACK Cable mount jack straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | YES YES YES | | 7900.MCAH.2X10.C27 7900.MCAH.2X10.C37 7900.MCAH.2X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | NO NO NO | | 7892.MCAH.2X10.C27 7892.MCAH.2X10.C37 7892.MCAH.2X10.C57 | Bulk | 7 = Sn |
| | 2 | PLUG Cable mount plug straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 7mm YES: 7mm YES: 7mm | 7891.MCAH.1X10.C27 7891.MCAH.1X10.C37 7891.MCAH.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 11mm YES: 11mm YES: 11mm | 7915.MCAH.1X10.C27 7915.MCAH.1X10.C37 7915.MCAH.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | NO: - NO: - NO: - | 7903.MCAH.1X10.C27 7903.MCAH.1X10.C37 7903.MCAH.1X10.C57 | Bulk | 7 = Sn |
| | 1 | JACK Cable mount jack straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | YES YES YES | | 7902.MCAH.2X10.C27 7902.MCAH.2X10.C37 7902.MCAH.2X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | NO NO NO | | 7838.MCAH.2X10.C27 7838.MCAH.2X10.C37 7838.MCAH.2X10.C57 | Bulk | 7 = Sn |
| | 1 | PLUG Cable mount plug straight | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 7mm YES: 7mm YES: 7mm | 7895.MCAH.1X10.C27 7895.MCAH.1X10.C37 7895.MCAH.1X10.C57 | Bulk | 7 = Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | YES: 11mm YES: 11mm YES: 11mm | 7917.MCAH.1X10.C27 7917.MCAH.1X10.C37 7917.MCAH.1X10.C57 | Bulk | 7=Sn |
| | | | RG174 LL (LL-Low Loss) RTK031 / Dacar302/ LL3,2 RTK044 | | NO: - NO: - NO: - | 7905.MCAH.1X10.C27 7905.MCAH.1X10.C37 7905.MCAH.1X10.C57 | Bulk | 7 = Sn |

CABLE TYPES

*exemplary illustration

Coding

Replace the X in the P/N for your required coding. Available codings:

| | | | | | | |
|-----------|-------|------------|---------------|-----------|-----------|------------|
| | | | | | | |
| A | B | C | D | E | F | Z |
| Jet black | Cream | Light blue | Claret violet | May green | Nut brown | Water blue |





EUROPE

IMS Connector Systems GmbH

Phone +49 (0) 7654 901-100
sales@imscs.com

AMERICAS

IMS Connector Systems Inc.

Phone +1 507 837 9393
salesusa@imscs.com

APAC

IMS Connector Systems Ltd.

Phone + 86 (0) 512 6808-1816
sales@imscscn.com

IMS CONNECTOR SYSTEMS

HEADQUARTERS, GERMANY
IMS Connector Systems GmbH
Obere Hauptstraße 30
DE-79843 Löffingen

Phone +49 (0) 7654 901-100
Fax +49 (0) 7654 901-199

sales@imscs.com
www.imscs.com

More product information:
www.imscs.com >> Markets >> Automotive

