



HD FIXED HEADER

Characteristics

Frequency	Up to 6 GHz
Application	Automotive
	HD Camera
Weight	0.98g
Temperature Range	-40 to +105 °C
IP Class	IPX7

Features

- Non-floating design
- SMT or TH variant available
- Optimal signal integrity and shielding
- Optional spring-loaded GND connection
- Choice of interfaces (FAKRA interconnection system or MATE-AX interconnection system)
- High sealing class: IP6K9

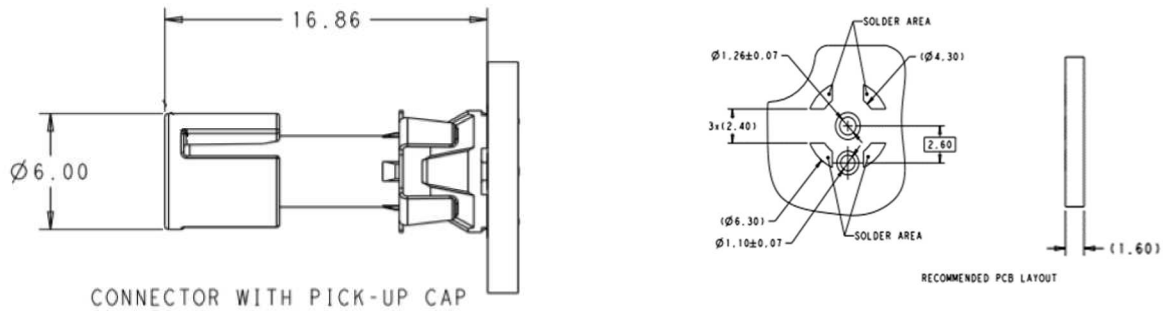
Our fixed header solutions combine the best RF and optimum EMI performance. The header is soldered directly to the PCB and, with the availability of SMT (Surface Mounted Technology) and through-hole (TH) variants, are highly suited to both single or multi-PCB cameras. In addition, optimal EMI shielding can be warranted with a spring-loaded connection between the connector grounding to a metal camera housing

All our solution variants are customizable and adaptable for an optimal fit to your camera module, including: length; interface (FAKRA interconnection system or MATE-AX interconnection system) or PCB mounting technology (surface-mounted, through-hole or solderless). All connectors' interfaces are interchangeable between FAKRA interconnection system and TE's MATE-AX interconnection system and are available with 180° and 90° mounting direction. In addition to an outer sealing, all variants feature an inner sealing for water proofing IP6K9K

COAXIAL CONNECTIVITY SOLUTION FOR AUTOMOTIVE CAMERAS

HD Fixed Header

Dimensions



RF Parameter	Performance
Impedance	50 Ohm
Insertion Loss @ 0-3 GHz @ 3-6 GHz	max 0.3 dB max 0.45 dB
Return Loss 0 GHz < f ≤ 2 GHz 2 GHz < f ≤ 3 GHz 3 GHz < f ≤ 6 GHz	≥ 15.56 dB ≥ 13.98 dB ≥ 12.74 dB
Electrical Data	Performance
Contact Resistance (of signal and outer contact) *1	max. 40 mOhm
Isolation Resistance	≥ 100 MΩ
DC Current (depending on cable type)	1 A
Operating Voltage	60 V DC
Test Voltage	800 V AC
Mechanical Data	Performance
Mating Cycles	≤ 25
Mating Force	≤ 25 N (Depend on the Plug side)
Ummating Force	≤ 25 N
ENVIRONMENTAL Data	Performance
Mechanical Shock	USCAR-2 Rev 6, Class V1
Vibration	USCAR-2 Rev 6, Class V1
Thermal Shock	USCAR-2 Rev.6, 5.6.1.3 -40°C / +105 °C;
Humidity Resistance	USCAR-2 Rev.6, 5.6.2.3 -40°C / +105 °C;
Temperature Resistance	USCAR-2 Rev.6, 5.6.3.3 105 °C;

*1) The contact resistance of the mated connection is shown in the product specification.


Components	Material	Plating
Shell	Zn Alloy	0.25 µm min. tin over 0.2µm min. Nickel
Spring	Stainless Steel	-
Dielectric	PCT	-
Seal ring	VMQ	-
Center Contact	Brass	0.38 µm min. Gold on mating area 2.50 µm min. Tin on terminal area Both over: 1.27 µm min. Nickel

COAXIAL CONNECTIVITY SOLUTION FOR AUTOMOTIVE CAMERAS

HD Fixed Header

Related Documents	
Drawing,	C-2278742 (te.com)
Customer View Model	3D_CVM (te.com)
Product Specification	108-101489
Test Report	501-132399

TE Connectivity's Coaxial Connectivity Solutions at a Glance

Solution	HD Fixed Header 1 Piece
Part Number	TH PCB Socket (SMT optional) 2278742 
Performance	up to 6 GHz (12 Megapixel, 4k and beyond)
Typical SerDes-Protocols	FPD-Link III/IV GMSL 2/3 MIPI ASA GVIF ...
Misalignment Compensation	NA
Socket Ø	6.3 mm
Key Feature	Spring-loaded GND connection to metal housing (optional)

TE Connectivity's Coaxial Connectivity Solutions at a Glance

- Floating and fixed header solutions
- Single and multi-PCB support
- High-level of misalignment compensation: ± 0.5 mm in all directions for floating solutions
- Highly compact design
- Broadband connectivity to support 8-12-megapixel HD cameras with up to 60 frames per second
- Waterproofing of IP6K9K
- Support all current and next-generation automotive coaxial SerDes protocols
- Supports phantom power supply
- Compatible to metal and plastic camera housings

COAXIAL CONNECTIVITY SOLUTION FOR AUTOMOTIVE CAMERAS

HD Fixed Header

Ordering numbers

Part Description	P/N
FAKRA interface	2278742-3
MATE-AX interface	Coming soon

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