

CONNECTOR SOLUTIONS MILITARY APPLICATIONS

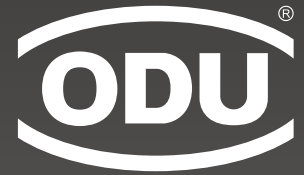
HDMI   
ODU HIGH SPEED DATA TECHNOLOGY



SMALLER - LIGHTER - FASTER



A PERFECT ALLIANCE



ODU GROUP OVERVIEW

- More than 80 years of experience in connector technology
- Over 2,500 employees worldwide
- Sales offices in China, Denmark, France, Germany, Hong Kong, Italy, Japan, Korea, Romania, Sweden, the UK and the US as well as 6 production and logistics sites
- All technologies under one roof: Design and development, machine tool and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly

We operate in the following markets: medical, military and security, test and measurement, industrial, and automotive

As of February 2022

CERTIFIED QUALITY

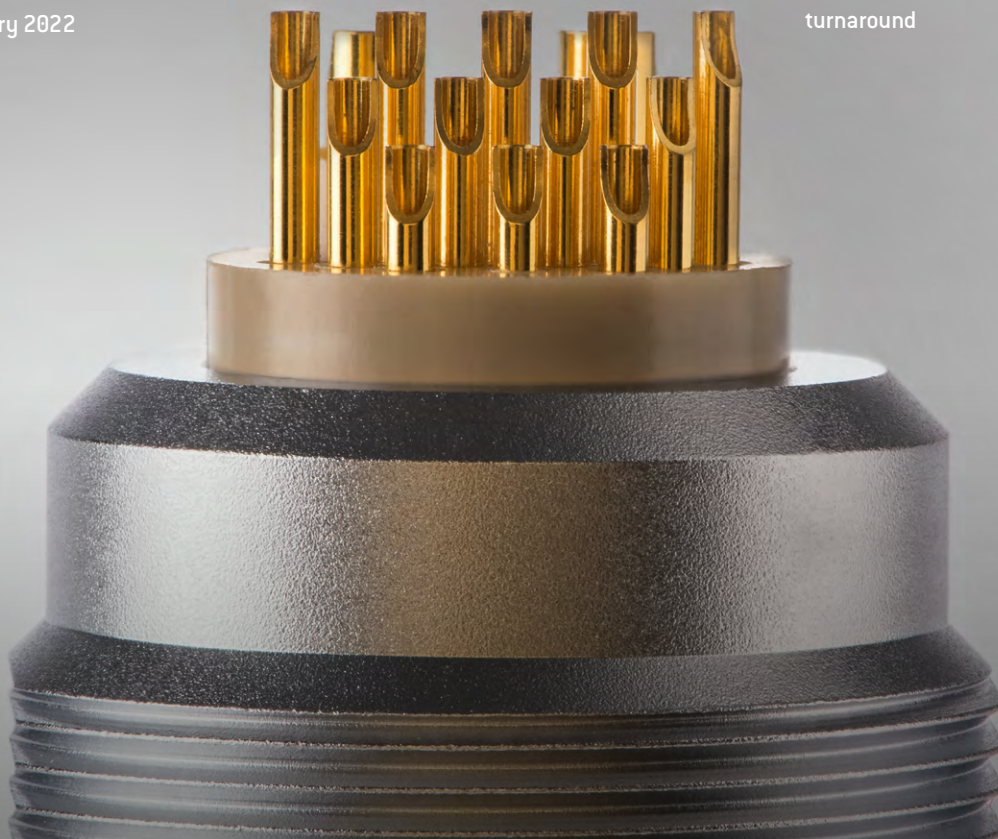
- ISO 9001
- IATF 16949
- ISO 13485
- ISO 14001
- ISO 50001
- Wide range of UL, CSA, VG and VDE licenses
- UL certified cable assembly

For a complete list of our certifications, please visit our website.

CUSTOMER-SPECIFIC SOLUTIONS

Contacts, connectors and integrated cable assembly solutions meeting the most demanding technical market requirements – ODU's connector solutions and value-added services are characterized by their exclusive focus on meeting the customer's needs.

- Precise implementation of application-specific requirements regarding design, functionality, cost and exclusivity
- Custom connector solutions derived from standard products
- One-to-one local expertise and fair, friendly consulting
- Rapid prototyping and production turnaround



ODU CONNECTORS APPLICABILITY

SOLDIER COMMUNICATION SYSTEMS

- + 70% weight and size reduction
- + Up to IP6K9K



UNMANNED SYSTEMS: UAV/UGV/UAS

- + High vibration resistance
- + High-speed data transfer



MILITARY VEHICLES

- + Shock and vibration resistant
- + Ergonomic shape and rapid mate/demate capable



ODU MILITARY CONNECTORS

FAST SAMPLE AVAILABILITY

Email us at: sales@odu-usa.com



| | Keying | Sizes | No. of possible mechanical keying | Diameter plug (mm) | Max. cable diameter (mm) | Max. no. of contacts | Solder | Crimp | Print |
|---|----------------|-------|-----------------------------------|--------------------|--------------------------|----------------------|--------|-------|-------|
| ODU AMC® High-Density Break-Away <ul style="list-style-type: none"> 70 % weight and size reduction Cable assembly solutions Chrome plated version available USB® 3.2 Gen 1x1¹ + USB® 2.0¹ + HDMI¹ + Ethernet  | Pin and groove | 00 | 4 | 9.8 | 5.0 | 7 | | | |
| | | 0 | | 12.8 | 7.0 | 16 | • | • | |
| | | 1 | | 14.8 | 8.5 | 27 | | | |
| ODU AMC® High-Density Screw-Lock <ul style="list-style-type: none"> High vibration resistance High speed data transfer High contact density: 2–16 contacts / 2 sizes  | Pin and groove | 00 | 4 | 9.8 | 5.0 | 7 | | | • |
| | | 0 | | 12.8 | 7.0 | 16 | • | • | |
| ODU AMC® Push-Pull <ul style="list-style-type: none"> > 5,000 mating cycles High speed data technology Quick and easy mating and locking  | Pin and groove | 0 | 4 | 14.0 | 5.5 | 10 | | | |
| | | 1 | | 15.9 | 6.5 | 16 | | | |
| | | 1.5 | | 16.5 | 8.0 | 19 | • | • | |
| | | 2 | | 19.6 | 10.0 | 26 | | | |
| | | 3 | | 23.9 | 11.5 | 37 | | | |
| ODU AMC® Break-Away <ul style="list-style-type: none"> > 5,000 mating cycles High speed data technology Quick and easy demating and locking  | Pin and groove | 0 | 4 | 11.9 | 5.5 | 10 | | | |
| | | 1 | | 13.9 | 6.5 | 16 | | | |
| | | 1.5 | | 15.9 | 8.0 | 19 | • | • | |
| | | 2 | | 17.6 | 10.0 | 26 | | | |
| ODU AMC® Series T <ul style="list-style-type: none"> Three locking types to 1 receptacle High vibration resistance Suitable for MIL 38999 backshells  | Pin and groove | 9 | 4 | 18.4 | 7.6 | 10 | | | |
| | | | | 18.5 | | | | | |
| | | | | 21 | | | | | |
| | | | | 24.2 | | | | | |
| | | 12 | | 24.9 | 14.6 | 18 | | | |
| | | | | 26 | | | | | |
| ODU AMC® NP <ul style="list-style-type: none"> Current rating up to 7.5 A per contact >2,000 mating cycles Break away function  | Pin and groove | 6 | 11 | 12.4 | 6.65 | 7 | • | • | • |

¹The contact arrangement of an ODU data transmission connector differs from a standard data transmission connector due to the robust ODU specific design. However, the ODU design meets the electrical specifications of the respective standard data transmission protocol.

⊕ ODU AMC® SERIES T



⊕ ODU AMC® NP



NEW!

⊕ ODU AMC® HIGH-DENSITY SCREW-LOCK



⊕ ODU AMC® HIGH-DENSITY



⊕ ODU AMC® HIGH-DENSITY BREAK-AWAY

| IP Class in mated condition | IP Class in unmated condition | Shell material | RoHS compliant | Operating temperature range | Advanced plating technologies for corrosion resistance | Coax transmission | Rapid cable assembly manufacturing | USB® 3.2 Gen 1x1 ¹ | USB® 2.0 ¹ | HDMI® ¹ | Ethernet CAT 5 and 10 GBit Ethernet |
|-----------------------------|-------------------------------|----------------|----------------|--|--|-------------------|---|-------------------------------|-----------------------|--------------------|--|
| Up to IP6K9K | IP68 | Brass | • | -51 °C (-60 °F) to +125 °C (+257 °F) | • | • | • | • | • | • | • |
| Up to IP6K9K | IP68 | Brass | • | -51 °C (-60 °F) to +125 °C (+257 °F) | • | • | • | • | • | • | • |
| Up to IP6K9K | IP68 | Aluminum | • | -51 °C (-60 °F) to +125 °C (+257 °F) | • | • | • | • | • | • | • |
| Up to IP6K9K | IP68 | Aluminum | • | -51 °C (-60 °F) to +125 °C (+257 °F) | • | • | • | • | • | • | • |
| Up to IP6K9K | IP68 | Aluminum | • | -65 °C (-85 °F) to +175 °C (+347 °F) | • | | Backshell version & standard cable assemblies | | | | Ethernet CAT 5 / 1 GBit Ethernet available |
| IP68 20 meters for 2 hours | IP68 20 meters for 2 hours | Aluminum | • | -18 °C (-0.4 °F) to +71 °C (+159.8 °F) | • | • | • | | • | | |

ODU FIBER OPTIC



NEW!

ODU AMC[®] SERIES T Expanded Beam Performance

- + Fiber types: Singlemode and Multimode
- + Configurations: 2 to 12 fibers
- + Outstanding optical performance



The ODU AMC[®] Series T Expanded Beam Performance is an advanced fiber optic solution. It offers high-end transmission characteristics over many mating cycles. The excellent optical performance remains unchanged even under mechanical stress, environmental influences and harsh ambient conditions.

MECHANICAL CHARACTERISTICS / ENVIRONMENTAL DATA

| | |
|-----------------------------|---------------------------|
| Mating cycles | 2,000* |
| IP class in mated condition | IP6K8 |
| Operating temperature | -40 °C to +80 °C |
| Vibration | MIL 810G 7.7 g |
| Cleaning | Every 5,000 mating cycles |

* Contact transition allows up to 25,000 mating cycles. Specifics of the connector series may deviate.

OPTICAL CHARACTERISTICS

| | | Typical | Max. |
|----------------|----|----------|----------|
| Insertion loss | SM | < 0.5 dB | < 0.7 dB |
| | MM | < 0.2 dB | < 0.3 dB |
| Return loss | SM | > 65 dB | ≥ 55 dB |
| | MM | > 30 dB | ≥ 25 dB |

CABLE SPECIFICATION

| | Singlemode | Multimode |
|-------------------------------|----------------|----------------|
| Fiber | G.657A2 | OM4 |
| Jacket | LSZH black | LSZH black |
| Cable diameter | 6.0 ± 0.2 (mm) | 6.0 ± 0.2 (mm) |
| Min. bending radius (static) | 60 mm | 60 mm |
| Min. bending radius (dynamic) | 120 mm | 120 mm |

REQUEST A QUOTE
Email us at: sales@odu-usa.com
Email us at: sales@odu.de

CABLE ASSEMBLY SOLUTIONS

CUSTOM COMPONENT OVERMOLD
(Custom Requirement)

OVERMOLDS WITH TPE, TPU & TPV

POTTING AND ENVIRONMENTAL SEALING

CUSTOMIZED CONNECTOR SOLUTIONS

FLEX LAYER ASSEMBLY

NON ODU CONNECTORS

- High-speed standard connectors such as: USB® 3.2 Gen 1x2¹, USB® 2.0¹, HDMI®¹ and Ethernet CAT 5
- Wire to board connectors

¹The contact arrangement of an ODU data transmission connector differs from a standard data transmission connector due to the robust ODU specific design. However, the ODU design meets the electrical specifications of the respective standard data transmission protocol.



ODU TESTING & QUALITY

- In-process checking
- Data rate testing
- 100 % final inspection
- EMC compatible assembly
- Potting and environmental sealing
- IPC/WHMA-A-620
- Production possible in cleanroom in accordance with EN ISO 14644-1

MODULAR / RECTANGULAR TECHNOLOGY



ODU-MAC® **Silver-Line**

- Advanced docking
- High vibration resistance
- > 100,000 mating cycles
- 31 different high speed data inserts
- 6 docking frame options

ODU-MAC® PUSH-LOCK **Blue-Line**

- Easy one handed operation
- Up to 70 signal contacts and power, coax, air, fluid, data rates
- > 5,000 mating cycles
- IP67
- Up to 6 mechanical keying options

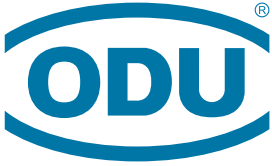


ELECTRICAL CONTACT TECHNOLOGY

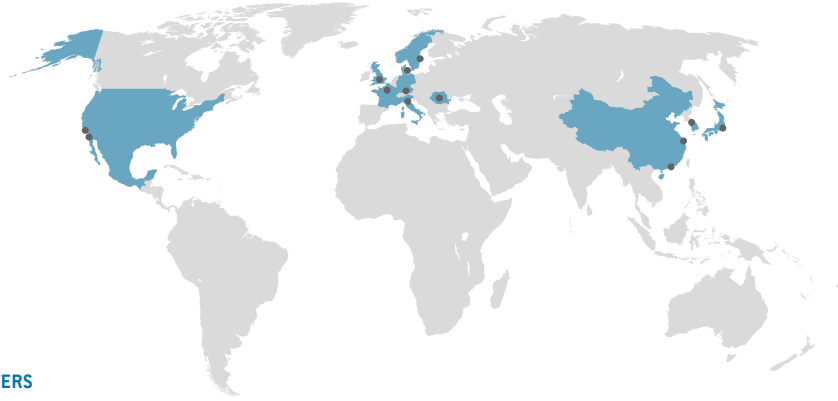
- High precision contacts
- Fully customizable
- Low contact resistance
- High current carrying capacity



ASK OUR ENGINEERS
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Further information and specialized representatives can be found at:

www.odu-connectors.com/contact

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China ODU (Shanghai) Connectors Manufacturing Co., Ltd.

Mexico ODU Mexico Manufacturing S. de R.L. de C.V.

Romania ODU Romania Manufacturing SRL

USA ODU North American Logistics Inc.



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