

CONNECTOR SOLUTIONS MILITARY APPLICATIONS

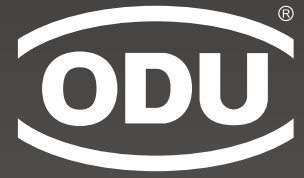
HDMI   
ODU HIGH SPEED DATA TECHNOLOGY



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

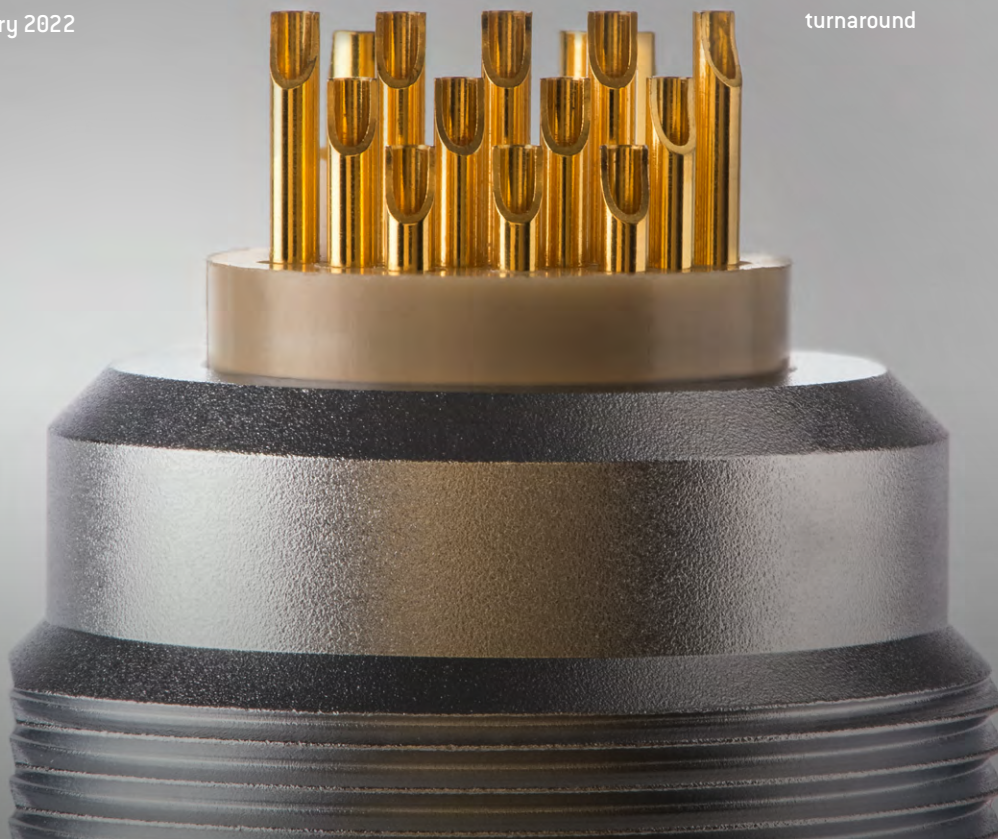
- ISO 9001
- IATF 16949
- ISO 13485
- ISO 14001
- ISO 50001
- Wide range of UL, CSA, VG and VDE licenses
- UL certified cable assembly

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			
12		18.5		21					
24.2		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

12 mm
10 mm
7 mm

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



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

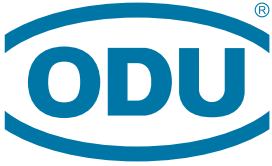


ELECTRICAL CONTACT TECHNOLOGY

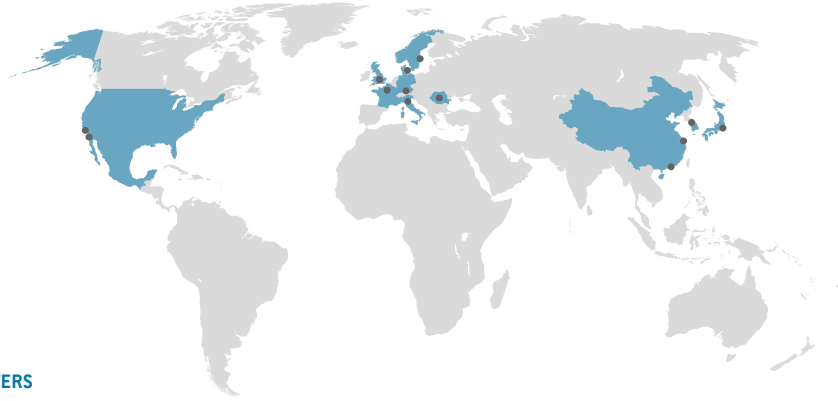
- High precision contacts
- Fully customizable
- Low contact resistance
- High current carrying capacity



ASK OUR ENGINEERS
 Email us at: sales@odu-usa.com
 Email us at: sales@odu.de



ODU GROUP WORLDWIDE



HEADQUARTERS

ODU GmbH & Co. KG

Pregelstraße 11, 84453 Mühldorf a. Inn, Germany

Phone: +49 8631 6156-0, Fax: +49 8631 6156-49, E-mail: sales@odu.de

SALES LOCATIONS

ODU (Shanghai)

International Trading Co., Ltd.

Phone: +86 21 58347828-0

E-mail: sales@odu.com.cn

www.odu.com.cn

ODU (HK) Trading Co., Ltd.

Phone: +852 3963-9588

E-mail: sales@odu.hk

www.odu-connectors.com

ODU Denmark ApS

Phone: +45 2233 5335

E-mail: sales@odu-denmark.dk

www.odu-connectors.com/da

ODU-France SARL

Phone: +33 1 3935-4690

E-mail: sales@odu.fr

www.odu-connectors.com/fr

ODU Italia S.R.L.

Phone: +39 331 2223929

E-mail: sales@odu-italia.it

www.odu-connectors.com/it

ODU Japan K.K.

Phone: +81 3 6441 3210

E-mail: sales@odu.co.jp

www.odu-connectors.com/ja

ODU Korea Inc.

Phone: +82 2 6964 7181

E-mail: sales@odu-korea.kr

www.odu-connectors.com/ko

ODU Romania Manufacturing SRL

Phone: +40 269 704638

E-mail: sales@odu-romania.ro

www.odu-connectors.com/ro

ODU Scandinavia AB

Phone: +46 176 18266

E-mail: sales@odu.se

www.odu-connectors.com/sv

ODU-UK Ltd.

Phone: +44 330 002 0640

E-mail: sales@odu-uk.co.uk

www.odu-connectors.com/uk

ODU-USA Inc.

Phone: +1 805 484-0540

E-mail: sales@odu-usa.com

www.odu-connectors.com/us

Further information and specialized representatives can be found at:

www.odu-connectors.com/contact

PRODUCTION AND LOGISTICS SITES

Germany Otto Dunkel GmbH

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.



Simply scan the QR code to download the entire publication.

All dimensions are in mm. Some figures are for illustrative purposes only. Subject to change without notice. Errors and omissions excepted. We reserve the right to change our products and their technical specifications at any time in the interest of technical improvement. This publication supersedes all prior publications.