

# ODU AMC<sup>®</sup> – Advanced Military Connectors

Günter Rohr – Global Portfolio Manager, ODU



In the last two years, worldwide many new developments concerning soldiers, as well as in the area of battlefield communication took place. Some of the soldier modernization programs were revised or redrafted. The key requirements of manufacturers and users still are: weight reduction, including miniaturization, robustness, easy handling and the safe transmission of a higher number of signals in the smallest possible space.

*“We have been able to solve many taxing demands from customers and application problems with our ODU AMC - Advanced Military Connector Series. Our ODU AMC connector series has been very well received on the market. Our customer's feedback is consistently very positive. Especially in Europe and the USA, we are part of the next generation in many research and development projects”, says G. Rohr.*

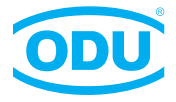
These high-quality, innovative connectors are involved in many different sectors of the defence and security market, e.g. soldier communication systems, night vision systems, radio systems, radar systems, portable navigation systems, armoured vehicles, etc.

For the “soldiers of the future”, such as “IDZ ES/ Gladius” (Germany), it all depends on a dependable and highly flexible interface solutions for the electronics and energy supply - therefore, the connection of personal equipment, optics, optoelectronics, communication devices and effectors. Furthermore, a corresponding, efficient and secure “wiring”, including a quick open or close and then reliably locking connector, proves to be the deciding factor in use. Here, ODU AMC is the first choice for connectors and was able to fulfill many of the demanding needs of connectors with its extensive standard program. In close collaboration with our customer Rheinmetall, we have developed special systems, such as, for example, application specific connectors for contact via helmets.



ODU is an expert in developing special application specific connectors systems, such as, for example, connectors for contact via helmets.

# ODU AMC® – Advanced Military Connectors: Your Right Choice for High-Speed Communication



A perfect alliance.

Performing and setting the standards in safe and highspeed data transmission.



**USB 2.0**



**CAT 5E: 1 GBit/s**  
**CAT 6A: 10 GBit/s**

- Push-Pull or Break-Away function
- Excellent 360° shielding properties
- More than 5,000 mating cycles
- Light, robust and reliable
- Watertight (IP 68)
- USB 2.0 and 1 GBit/s-Ethernet in one connector
- USB 2.0
- 100 MBit/s-Fast-Ethernet
- 1 – 10 GBit/s-Ethernet



Besides its approach to a complete solution, like with Gladius, component manufacturers are already resorting to ODU AMC connectors. Due to its excellent transmission of data, 360° shielding properties, being water proof and its ergonomic design (for example, low weight, “blind connectivity”) and versatility (for example break-away and push-pull solutions, individual color coding etc.) the ODU AMC connector series is predestined for use.

Another successful area of use for the ODU AMC applications are tactical communication solutions. It’s all about getting the important information down to the individual soldier. Today you have squad leaders with all needed information. He is connected to head quarters and networks. The individual soldier relies on hand signals or shouts in terms of communication. But information is important for him. Where I am? Where is friend and foe? So every soldier will be connected with various system to be able receiving information. ODU AMC connectors can be used for PRR “Personal Role Radios”, ruggedized laptops, as well as newly developed SDR systems (software defined radios) for troop communication.



The new R&S® SDTR: This new generation of software defined radios marks a revolutionary change in tactical communications – both technically and economically. (Source: Rohde & Schwarz)

**ODU AMC Easy-Clean – Fast and Easy Cleaning Guaranteed!**

*Remove mud, slop or dust quick as a flash. For clean contacts and safe data transmission.*

What is more important to an infantryman than to be able to act quickly during action? It is therefore necessary that all information systems are completely compatible with each other and that they meet the highest standards of quality. Light, small, robust and easily cleanable on the field. The ODU AMC Easy-Clean series meets all these requirements in an ideal manner and through a number of different configurations: The connectors are unaffected by dirt and dust. The receptacle or the plug can be cleaned depending on their configuration.

**ODU AMC Easy-Clean – Fast and Easy Cleaning Guaranteed!**



*ODU AMC Easy-Clean - whether mud, dust or snowy mush – this plug’s contacts can be easily and quickly cleaned in the field even under the most unfavourable conditions.*

- Extremely robust and stable
- Light weight, small dimensions
- Simple to use and blind mating
- Can be used under the toughest conditions
- Excellent shielding properties (360°)
- Operating temperature: -51° C to +125° C
- Different coding options – either mechanical or by colour
- Watertight – protection class IP 68
- Lifetime of up to 5,000 mating cycles, dependent on the specific application.
- System solutions, including packaging and encapsulation
  - Size 0: 7 positions
  - Size 1: 10/16 positions
  - Size 1.5: 19 positions

To serve the various soldier modernisation systems is only the start – ODU’s target for the future is to connect all interfaces around the soldier such as weapons, communications systems and vehicle connections using the ODU AMC family, so that system engineers and soldiers can benefit from one connector family that meets all requirements for their specific applications. ■