

## PRESS CONTACT

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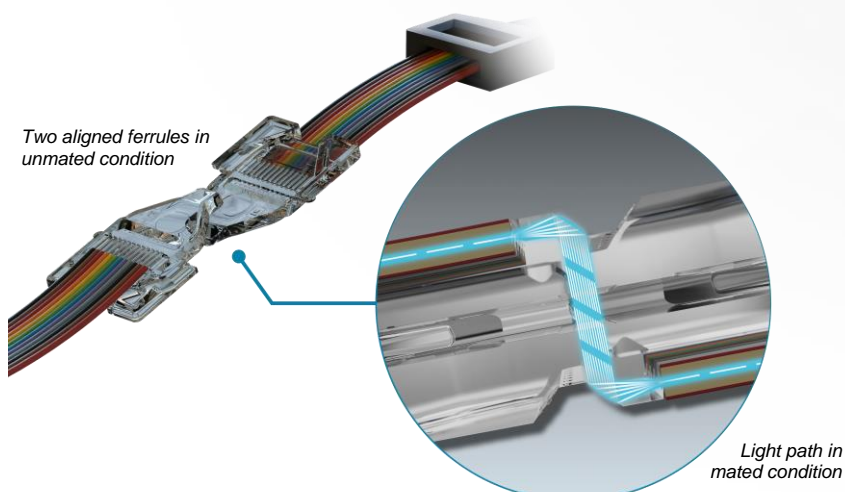
# PRESS INFORMATION

Mühldorf a. Inn, 10.01.2025

## A NEW ERA IN FIBER OPTIC TRANSMISSION ODU EXPANDED BEAM PERFORMANCE PORTFOLIO WITH VITA-STANDARD SOLUTIONS

The limitations of current fiber connectivity solutions in the world of rugged embedded systems continue to be an issue for end users in defence and aerospace applications. These limitations include low mating cycles and the need for excessive cleaning in the field. The new Expanded Beam Performance products are the answer to these limitations. Very high mating cycles, low susceptibility to dust and excellent transmission values are a game changer for the end user. The Expanded Beam Performance solutions are available as singlemode and multimode version. Due to its small size, the ferrule can be integrated in both circular and backplane connectors.

At the heart of the new portfolio is a cassette system that allows multiple ferrules to be arranged side by side in a space-saving manner. With 12 connected fibers per ferrule, up to 96 optical fibers can be connected to one connector. The technology is available both in classic I/O circular connectors, and in backplane connection systems in accordance with the VITA standard. In addition to its outstanding transmission values, it exceeds available ferrules on the market with its extreme durability. The scattering of the light by using expanded beam technology eliminates the high maintenance costs typical for physical contact solutions.



### Expanded Beam Performance

...is an advanced contact technology for the transmission of light signals. It is characterized by high resistance to contamination, a high number of mating cycles, and excellent transmission properties.

#### Contact technology: Expanded beam Insertion loss:

Multimode: < 0.15 dB (typical)  
Singlemode: < 0.35 dB (typical)

#### Return loss:

Multimode: > 45 dB (typical)  
Singlemode: > 60 dB (typical)

#### Mating cycles: at least 50,000

Cleaning: no cleaning under normal conditions

## ODU TACTICS // VITA 95

The circular connector enables the compact combination of multiple ferrules and is based on the upcoming VITA 95 standard. ODU TACTICS offers four different sizes of connectors within MIL-DTL-38999, Series III housings, and enables the connection of up to 96 optical fibers depending on the configuration. The design is characterized by its robustness and has been the market standard in the military environment for some time. This solution is the low maintenance alternative to products according to VITA 87 and VITA 89.

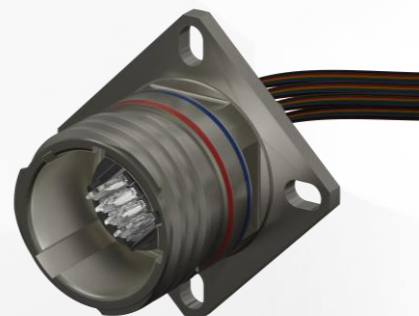


Figure 1: ODU TACTICS according to VITA 95

VITA 95			
Shell Size 11	Shell Size 13	Shell Size 15	Shell Size 17
Up to 24 fibers	Up to 48 fibers	Up to 72 fibers	Up to 96 fibers

Table 1: ODU TACTICS variants

## ODU AMC® Series T



Figure 2: AMC Series T solutions as a state-of-the-art connection.

This alternative to the standardized MIL-DTL-38999, Series III connector excels with its innovative locking principle and even smaller footprint. Qualified on the basis of the 38999 test standards, ODU AMC Series T meets all requirements for use in extreme environments and scores points with its lower weight and smaller form factor. Couplings are available in the familiar square flange design, but also as a jam nut version. The system enables a secure connection for at least 5,000 mating cycles without the need for cleaning.

AMC Series T			
Shell Size* 9	Shell Size* 12	Shell Size* 14	Shell Size* 16
Up to 24 fibers	Up to 48 fibers	Up to 72 fibers	Up to 96 fibers

Table 2: AMC Series T variants  
\*Shell size applies to ODU AMC® Series T

## ODU BACKPLANE // VITA 96

Based on the upcoming VITA 96 standard, the BACKPLANE line enables the direct connection from module to backplane. The versions of VITA 96.1, VITA 96.4, and VITA 96.5 fit into the same apertures as commonly known VITA 66.1, VITA 66.4, VITA 66.5 solutions, thus enabling easy integration of the innovative Expanded Beam Performance technology. With a service life of at least 10,000 mating cycles, this connection solution is ideal for applications that have to be regularly fitted with different modules over a long period of use.



*Figure 3: ODU BACKPLANE according to VITA 96.1 connects up to 96 glass fibers.*

For detailed information on the new portfolio and a digital version visit [odu-aerospace.com](https://www.odu-aerospace.com).



## ODU Group: Global representation with perfect connections

The ODU Group is one of the world's leading suppliers of connector systems, employing 2,700 people around the world. In addition to its company headquarters in Muehldorf a. Inn (Germany), ODU also has an international distribution network, production and product development sites in Sibiu/Romania, Shanghai/China, Tijuana/Mexico and Camarillo/USA. ODU combines all relevant areas of expertise and key technologies including design and development, machine tooling and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly. The ODU Group sells its products globally through its sales offices in Austria, China, Denmark, France, Germany, Hong Kong, Italy, Japan, Korea, Sweden, UK and the US, as well as through numerous international sales partners. ODU connectors ensure a reliable transmission of power, signals, data and media for a variety of demanding applications including medical technology, military and security, automotive, industrial electronics, and test and measurement.