• For temporary communication in the field.
• 2 sizes—ProBeam Jr. and ProBeam Sr.
• ProBeam Jr. is compatible with MIL-DTL-83526/20 (Plug) and /21 (bulkhead)
• Expanded Beam Technology
• Hermaphroditic (direct plug to plug, plug to bulkhead connector)
• 2–, 4 or 8-channel system.
• Single mode or multi mode
• Military tactical cable for extreme conditions.

Description
ProBeam Jr. are available as 2- and 4-channel systems. ProBeam Sr. are available as 2-, 4 and 8-channel systems.

A system consists of:
• A specified length of 2-, 4 or 8-fibre tactical cable with ProBeam Jr. or ProBeam Sr. plug in both ends.
• 2 ProBeam Jr. or ProBeam Sr. bulkhead connectors that are open in the other end or terminated with standard data/telecom connectors e.g. SC, LC, ST, FC.
• Delivered with single mode 9/125 µm, multi mode 50/125 µm (OM-2) or multi mode 62.5/125 µm (OM-1) fibre.
• Cable is delivered with strong polyurethane outer coating which also is resistant to chemicals. Alternatively a LSZH-version (Low Smoke Zero Halogen) may be delivered.
• Ruggedized cable reel for 100, 250 or 500m tactical cable is available.

In the ProBeam connector the beam of light from the fibre is expanded in a ball lens to a diameter that is about 30 times larger for single mode and 14 times larger for multi mode (Expanded Beam Technology). This gives an increased area of 900x and 200x respectively. The sensitivity to dirt and dust is therefore reduced considerably. Cleaning the connectors are also simplified and will normally consist only of rinsing in water.

ProBeam is a hermaphroditic connector. This means that there are no male or female which simplifies connection:
• Plug may be connected to plug
• Plug may be connected to bulkhead connector
• Bulkhead connector may not be connected to bulkhead connector
Specifications

Optical
Insertion loss (typical against reference)
- 2 and 4 channel multimode at 850/1300 nm < 1.5 dB (typical 0.7 dB)
- 2 and 4 channel single mode at 1310/1550 nm < 1.5 dB (typical 0.8 dB)
- 8 channel multimode at 850/1300 nm < 2.0 dB (typical 0.7 dB)
- 8 channel single mode at 1310/1550 nm < 2.0 dB (typical 0.8 dB)

Reflection loss (typical against reference)
- Single mode - 34 dB at 1310/1550 nm

Physical properties
Weight
- ProBeam Jr/Sr plug: 125/290 g
- ProBeam Jr/Sr bulkhead connector: 100/150 g

Operational temperature
- In use: -40 °C to +85 °C
- Storage: -55 °C to +85 °C

Free fall
- 1.2 m on concrete: 500 drops

Coupling endurance
- 3000

Immersion in water
- Jr. plug/bulkhead: 15/15 m depth
- Sr. plug/bulkhead: 5/2 m depth

Materials
ProBeam plug and bulkhead connector is delivered standard in anodised aluminium with boot and grip in EPDM-rubber. The connectors may also be delivered in NiAlBr for high saline environment.

Fibre and cable
Fibre type
- Multi mode 50/125 µm: OM2
- Multi mode 62.5/125 µm: OM1

Cable
Material (standard)
- Polyurethane

Material (option)
- LSZH (Low Smoke Zero Halogen Polyurethane)

Outer diameter
- 5.5 mm

Tension strength at installation
- 1800 N

Crush resistance
- 440 N/cm

ProBeam Jr
ProBeam Sr

Article numbers

Military tactical cable with ProBeam Jr. plug
3-902MIL9-3-xxx  2-fiber PBJR plug-PBJR plug, 9/OS2, PUR, x m
3-904MIL9-3-xxx  4-fiber PBJR plug-PBJR plug, 9/OS2, PUR, x m
3-902MIL50-3-xxx  2-fiber PBJR plug-PBJR plug, 50/OM2, PUR, x m
3-904MIL50-3-xxx  4-fiber PBJR plug-PBJR plug, 50/OM2, PUR, x m
3-902MIL62-3-xxx  2-fiber PBJR plug-PBJR plug, 62.5/OM1, PUR, x m
3-904MIL62-3-xxx  4-fiber PBJR plug-PBJR plug, 62.5/OM1, PUR, x m

ProBeam Jr. bulkhead connector
4-902MIL9-Z-xxx  2-channel PBJR connector-Z, 9/OS2, PUR, x m
4-904MIL9-Z-xxx  4-channel PBJR connector-Z, 9/OS2, PUR, x m
4-902MIL50-Z-xxx  2-channel PBJR connector-Z, 50/OM2, PUR, x m
4-904MIL50-Z-xxx  4-channel PBJR connector-Z, 50/OM2, PUR, x m
4-902MIL62-Z-xxx  2-channel PBJR connector-Z, 62.5/OM1, PUR, x m
4-904MIL62-Z-xxx  4-channel PBJR connector-Z, 62.5/OM1, PUR, x m
4-699251-Z-xxx  2-channel PBJR connector-Z, 9/OS2, AXAI, x m
4-2X699251-Z-xxx  4-channel PBJR connector-Z, 9/OS2, AXAI, x m
4-699253-Z-xxx  2-channel PBJR connector-Z, 50/OM2, AXAI, x m
4-2X699253-Z-xxx  4-channel PBJR connector-Z, 50/OM2, AXAI, x m
4-699255-Z-xxx  2-channel PBJR connector-Z, 62.5/OM1, AXAI, x m
4-2X699255-Z-xxx  4-channel PBJR connector-Z, 62.5/OM1, AXAI, x m

xxx = length: 001=1 m, 010=10 m, 050=50 m, 100=100 m
Z= connector type:
O: Open end, 1= ST, 5= FC, 7= SC, L= LC

Tactical cable (PUR) is also available as LSZH.
Article numbers  cont.

Military tactical cable with ProBeam Sr. plug
6-902MIL9-6-xxx  2-fiber PBSR plug-PBSR plug, 9/OS2, PUR, x m
6-904MIL9-6-xxx  4-fiber PBSR plug-PBSR plug, 9/OS2, PUR, x m
6-908MIL9-6-xxx  8-fiber PBSR plug-PBSR plug, 9/OS2, PUR, x m
6-902MIL50-6-xxx 2-fiber PBSR plug-PBSR plug, 50/OM2, PUR, x m
6-904MIL50-6-xxx 4-fiber PBSR plug-PBSR plug, 50/OM2, PUR, x m
6-908MIL50-6-xxx 8-fiber PBSR plug-PBSR plug, 50/OM2, PUR, x m
6-902MIL62-6-xxx 2-fiber PBSR plug-PBSR plug, 62.5/OM1, PUR, x m
6-904MIL62-6-xxx 4-fiber PBSR plug-PBSR plug, 62.5/OM1, PUR, x m
6-908MIL62-6-xxx 8-fiber PBSR plug-PBSR plug, 62.5/OM1, PUR, x m
6-902MIL9-Z-xxx  2-channel PBSR connector-Z, 9/OS2, PUR, x m
6-904MIL9-Z-xxx  4-channel PBSR connector-Z, 9/OS2, PUR, x m
6-908MIL9-Z-xxx  8-channel PBSR connector-Z, 9/OS2, PUR, 0 m
6-902MIL50-Z-xxx 2-channel PBSR connector-Z, 50/OM2, PUR, x m
6-904MIL50-Z-xxx 4-channel PBSR connector-Z, 50/OM2, PUR, x m
6-908MIL50-Z-xxx 8-channel PBSR connector-Z, 50/OM2, PUR, x m
6-902MIL62-Z-xxx 2-channel PBSR connector-Z, 62.5/OM1, PUR, x m
6-904MIL62-Z-xxx 4-channel PBSR connector-Z, 62.5/OM1, PUR, x m
6-908MIL62-Z-xxx 8-channel PBSR connector-Z, 62.5/OM1, PUR, x m
8-699251-Z-xxx  2-channel PBSR connector-Z, 9/OS2, AXAI, x m
8-2x699251-Z-xxx 4-channel PBSR connector-Z, 9/OS2, AXAI, x m
8-4x699251-Z-xxx 8-channel PBSR connector-Z, 9/OS2, AXAI, x m
8-699253-Z-xxx  2-channel PBSR connector-Z, 50/OM2, AXAI, x m
8-2x699253-Z-xxx 4-channel PBSR connector-Z, 50/OM2, AXAI, x m
8-4x699253-Z-xxx 8-channel PBSR connector-Z, 50/OM2, AXAI, x m
8-699255-Z-xxx  2-channel PBSR connector-Z, 62.5/OM1, AXAI, x m
8-2x699255-Z-xxx 4-channel PBSR connector-Z, 62.5/OM1, AXAI, x m
8-4x699255-Z-xxx 8-channel PBSR connector-Z, 62.5/OM1, AXAI, x m

xxx = length: 0.01=1 m, 0.10=10 m, 0.50=50m, 1.00=100 m
Z= connector type:
0: Open end, 1= ST, 5= FC, 7= SC, L= LC

Tactical cable (PUR) is also available as LSZH.

AXAI-cable from bulkhead connector to data connectors are normally made up of 1, 2 or 4 standard 2 mm figure-8 cables (patch).
sir bulkhead connector, Probeam Sr. plug, Probeam Jr. bulkhead connector and Probeam Jr. plug

2 tactical cables connected using ProBeam plug.

ProBeam bulkhead connector connected to plug, ST connector on the other side.

ProBeam bulkhead connector with ST connector in the other end. NB: bulkhead connectors may not be connected to bulkhead connectors.

Connector panel with 25 ProBeam bulkhead connectors.

Reel for 100, 250 eller 500 m kabel.