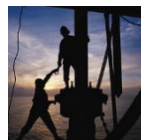
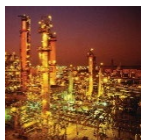
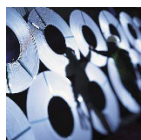
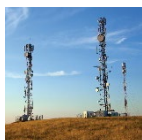
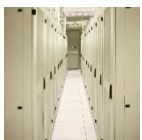


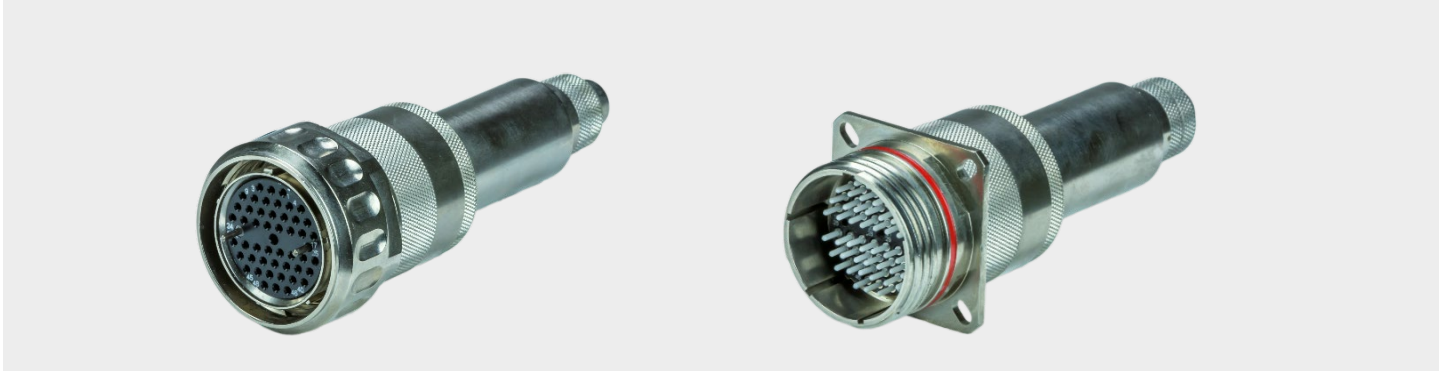
High Density Connectors



Military Aerospace Shipboard Industrial Mining Transportation Oil & Gas Broadcast Manufacturing Marine Energy Medical



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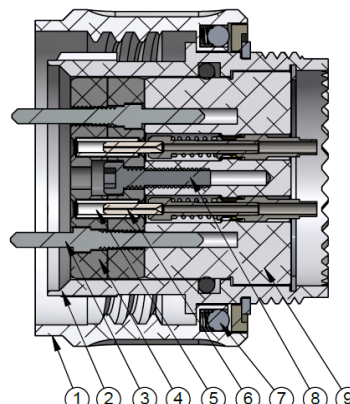
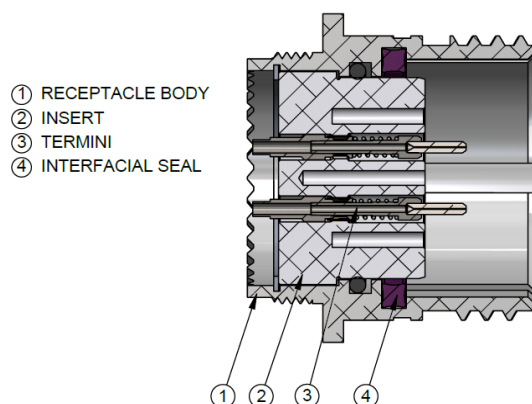
QPC's High Density Connector utilizes proven technology and features from the D38999 Connector standard. The vibration proof D38999-III style connector body is made of nickel-plated aluminum and is available in four shell sizes with standard insert layouts. The High Density Connectors are available in a variety of keying options to prevent erroneous connections in complex systems.

The High Density Connector insert is available in aluminum or composite and is designed with a genderless terminus and with a removable alignment sleeve retainer (ASR) to provide a common solution for plug and receptacle applications. The 1.25mm ferrules are housed in a miniature terminus body to give unparalleled contact density in a harsh environment connector.

High Density Connectors are used in Military, Aerospace, and Defense for Communications, Audio / Video, and Sensing Applications.

- 4Ch / 20Ch / 28Ch / 48Ch Pin & Socket Physical Contact Connector System
- Plugs: With Triple Start Threads and Ratcheting Coupling Rings
- Receptacles: Flange Mount
- Variety of Conduit Adapters and Backshells available
- Sealed to IP50
- Shells Designed to MIL-DTL-38999 Series III with Custom Inserts to Support Higher Channel Density (*See Table*)
- Available in Custom Hybrid (Fiber / Copper) Configurations

Shell Size	Channel Count	
	D38999	QPC High Density
11	2	4
17	8	20
19	11	28
23	21	48



- ① COUPLING RING
- ② PLUG BODY
- ③ GUIDE PIN
- ④ SLEEVE RETAINER
- ⑤ ALIGNMENT SLEEVE
- ⑥ TERMINI
- ⑦ BALL DETENT
- ⑧ SLEEVE RETAINER SCREW
- ⑨ INSERT

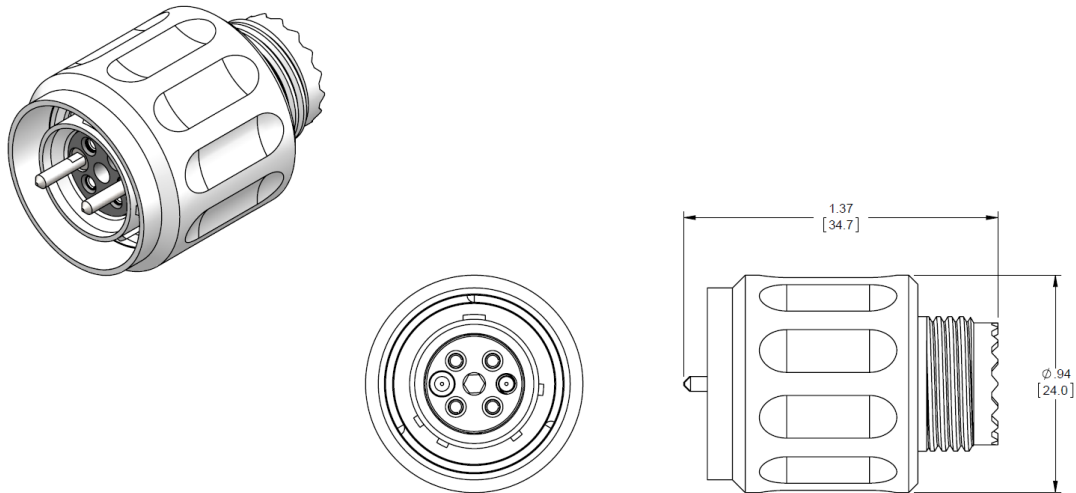
Specifications:

Fiber Optic Termini	
Insertion Loss: SM (9/125µm)	0.10-0.75dB Max.
MM (50/125µm)	0.10-0.75dB Max.
MM (62.5/125µm)	0.10-0.75dB Max.
Return Loss: SM (9/125µm)	-40dB PC, -55dB UPC
Operating Temperature:	-55°C to +165°C
Vibration:	10 to 2000Hz / 15g EIA/TIA-455-11, Cond. III
Mating Durability:	500 Cycles
Shock:	300g Peak for 3ms, 3 shocks/axis in each direction, per TIA/EIA-455-14, Test Condition D
IP Rating:	IP50 - Dust Protected, Limited ingress of dust; complete protection against contact
Material & Plating Specification:	Shell: 6061-T6 Aluminum; Electroless Nickel per ASTM B733 <i>NOTE: Flange Mount Receptacle Body and Plug Coupling Ring (Shell Size 23 only) - Electroless Nickel, Teflon Impregnated (ENSLICK) Per ASTM B733, TYI, .0002-.0003" Thick Over Electroless Nickel Per ASTM B733, TYI .0002-.0003" Thick (Total Thickness .0004-.0006"</i> Insert (Fiber Optic): 6061-T6 Aluminum; Anodize Per MIL-A-8625 Type III Class 2, .0022/.0018 Thick (50% Penetration), Black Insert (Hybrid): Torlon 4301

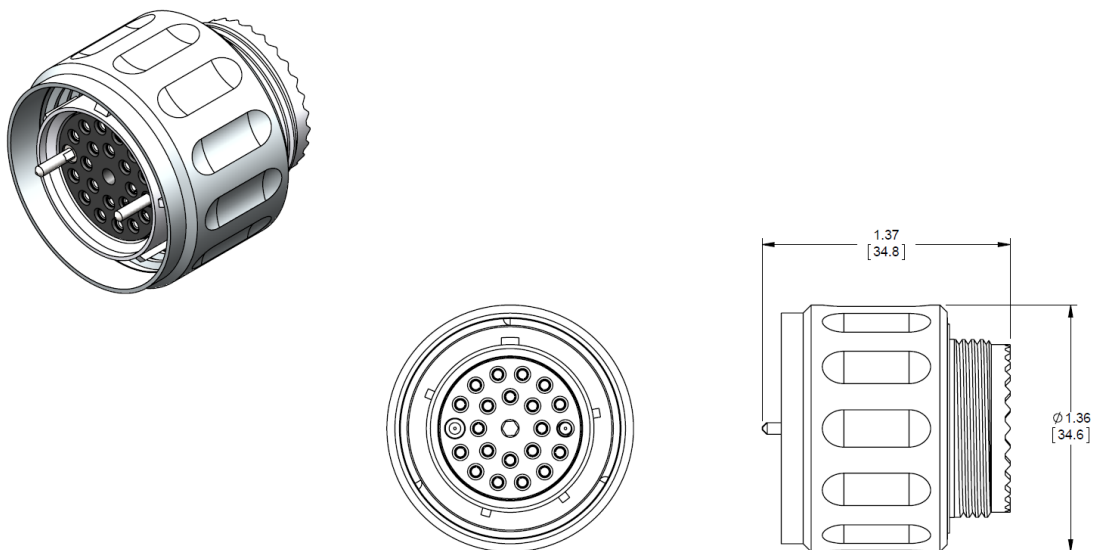
Part Number Builder:

Sample Part Number: HD-PPMAE-2348-N	HD	-	P	P	M	A	E	-	23	48	-	N
<u>Series</u> High Density												
1 <u>Product Type</u> P - Plug R - Receptacle												
2 <u>Contact</u> S - SOCKET (with Alignment Sleeve Retainer) P - PIN (without Alignment Sleeve Retainer)												
3 <u>Dust Cover</u> X - NO DUSTCOVER												
4 <u>Insert</u> A - ALLOY INSERT C - COMPOSITE INSERT												
5 <u>Shell Material & Finish Code</u> E - ELECTROLESS Ni PLATE												
6 <u>Shell Size & Channel Count</u> 11-04 17-20 19-28 23-48												
7 <u>Key Configuration</u> A B (23-48 Only) C (23-48 Only) N U <i>Conduit adapters and Backshells sold separately, please contact QPC.</i>												

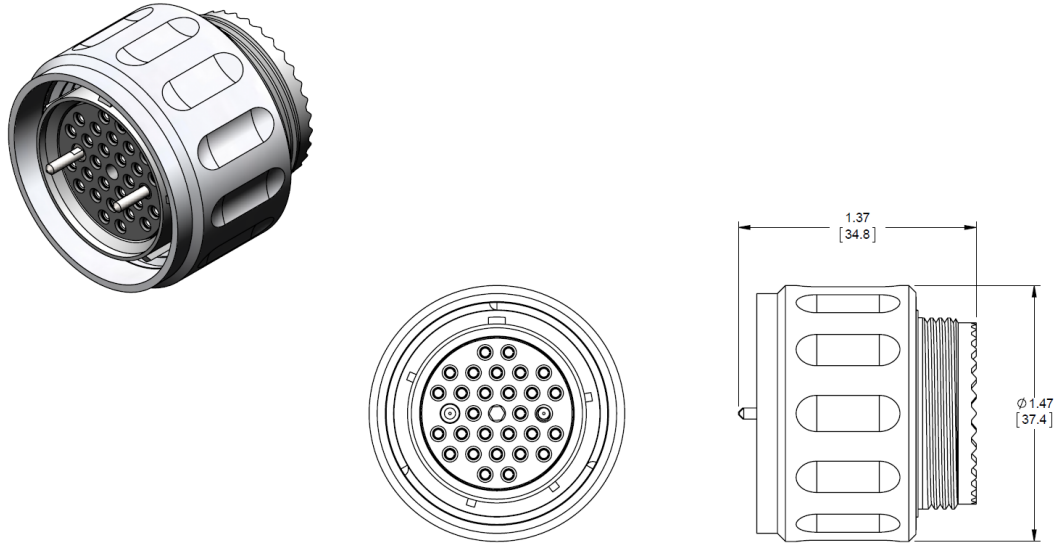
High Density Plug, Shell Size 11-04:



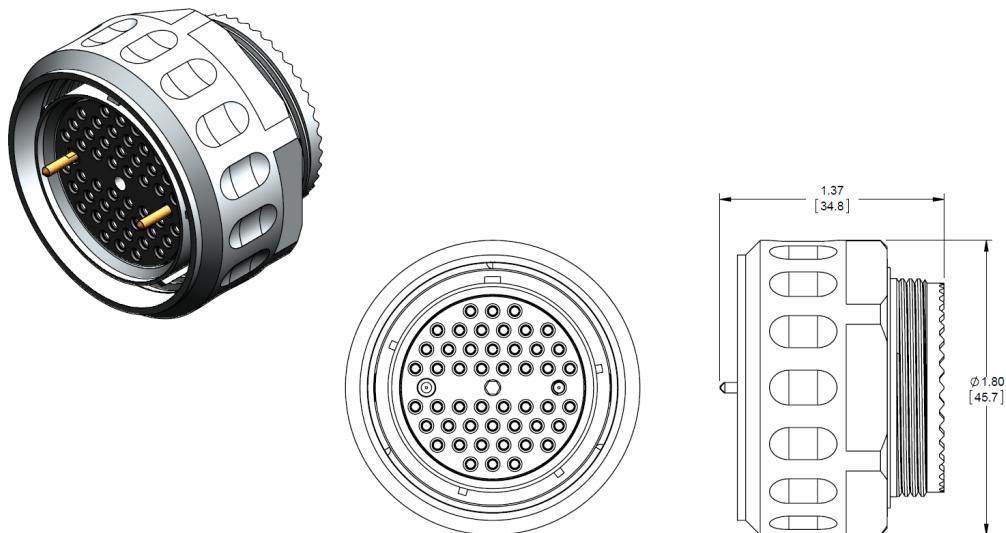
High Density Plug, Shell Size 17-20:



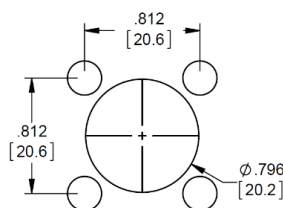
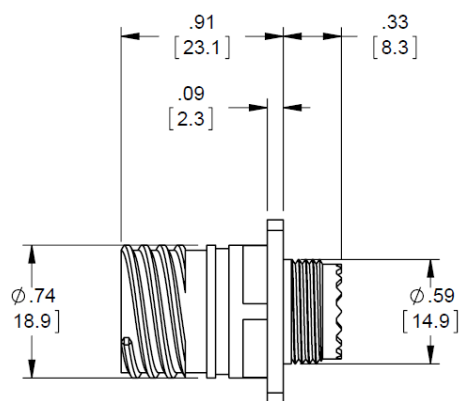
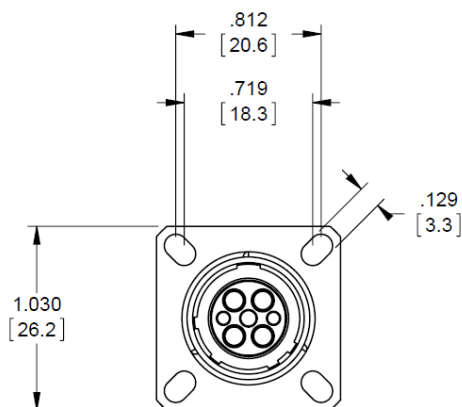
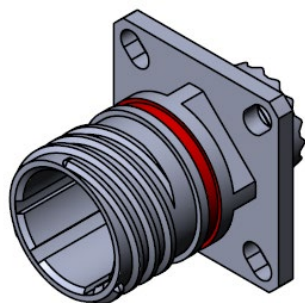
High Density Plug, Shell Size 19-28:



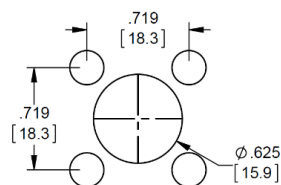
High Density Plug, Shell Size 23-48:



High Density Receptacle, Flange Mount, Shell Size 11-04:

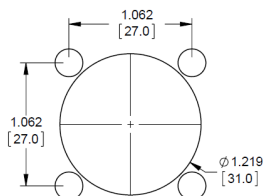
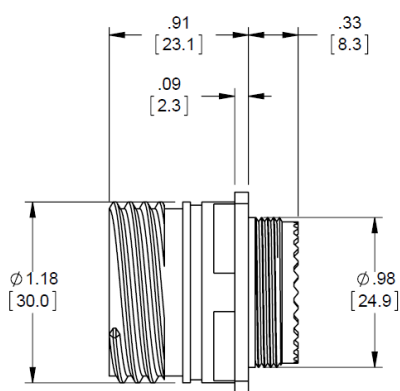
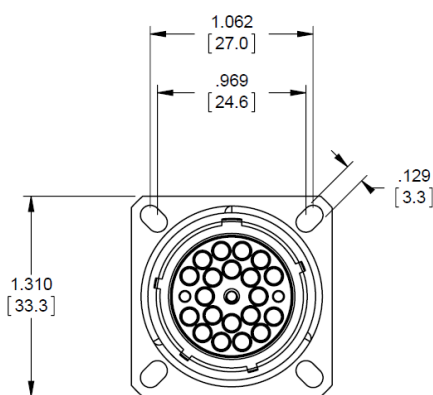
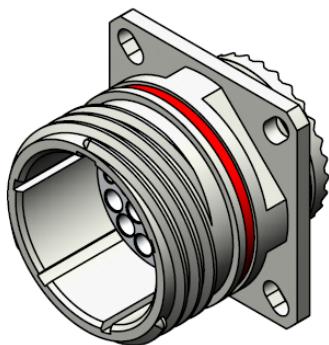


PANEL CUTOUT
BACK PANEL MOUNTING

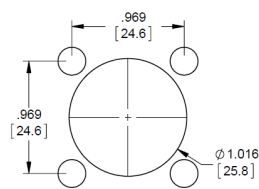


PANEL CUTOUT
FRONT PANEL MOUNTING

High Density Receptacle, Flange Mount, Shell Size 17-20:

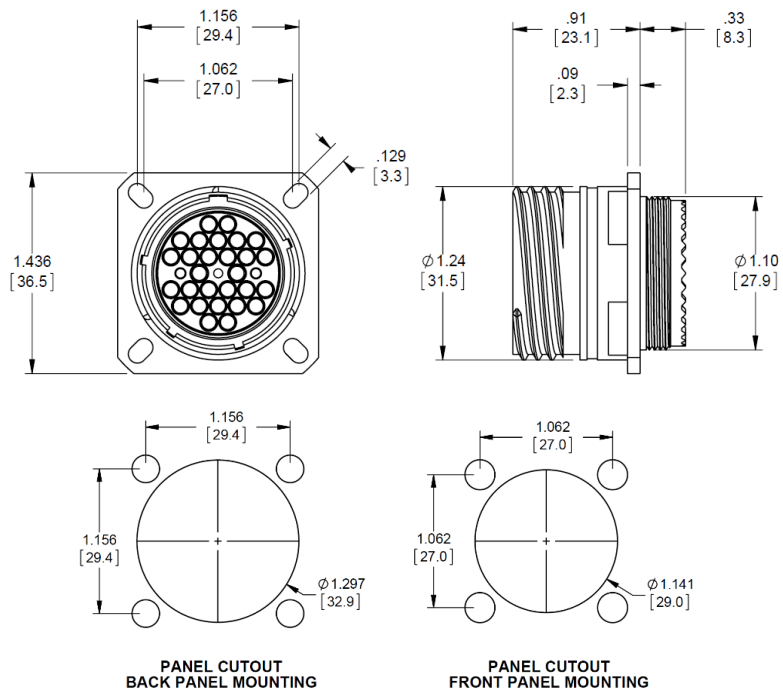
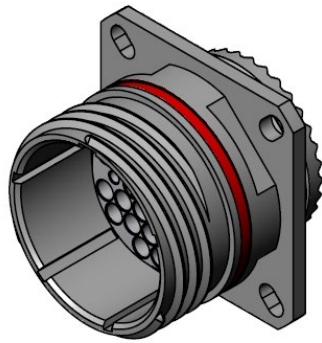


PANEL CUTOUT
BACK PANEL MOUNTING

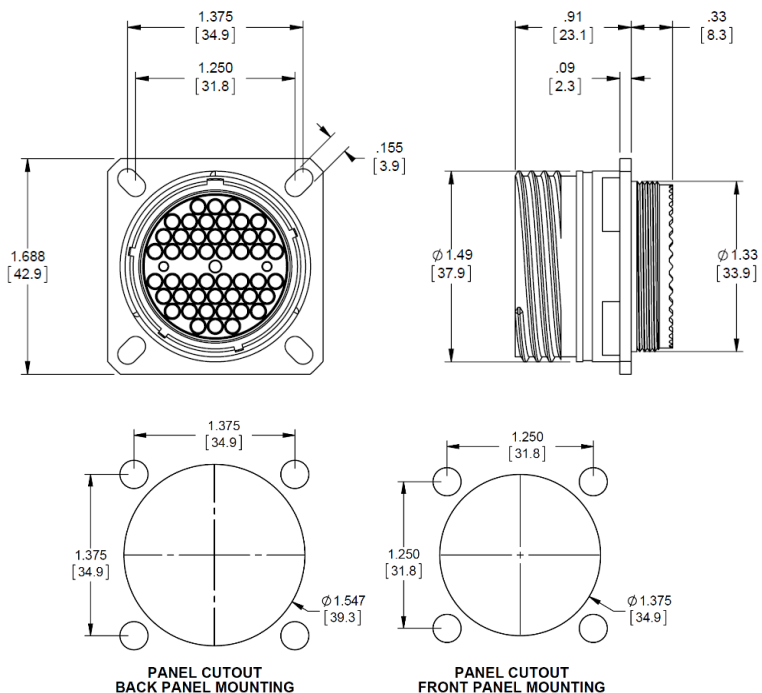
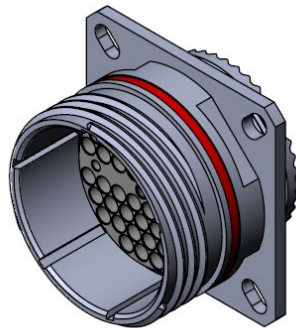


PANEL CUTOUT
FRONT PANEL MOUNTING

High Density Receptacle, Flange Mount, Shell Size 19-28:



High Density Receptacle, Flange Mount, Shell Size 23-48:

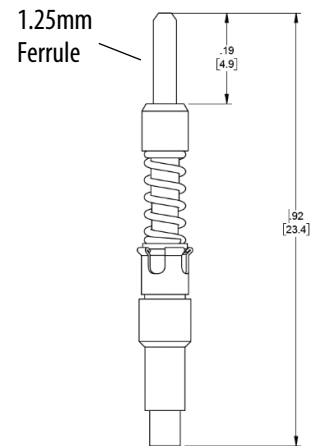


High Density Termini:



PART NUMBER	DESCRIPTION
HD-TRM-P125U	TERMINI, PIN, 1.25mm FRONT RELEASE, 125.5 MICRON
HD-TRM-P140U	TERMINI, PIN, 1.25mm FRONT RELEASE, 140.5 MICRON

Units: Inches (mm)



HD-TRM-P1xxU

Alignment Sleeve Retainer (ASR):

Aluminum Alloy	Composite	DESCRIPTION
HD-002-A	HD-002-C	ASSY, CAP, SLEEVE RETAINER, 38999-11-04
HD-022-A	HD-022-C	ASSY, CAP, SLEEVE RETAINER, 38999-17-20
HD-042-A	HD-042-C	ASSY, CAP, SLEEVE RETAINER, 38999-19-28
HD-062-A	HD-062-C	ASSY, CAP, SLEEVE RETAINER, 38999-23-48



Tools:

Aluminum Alloy	DESCRIPTION
PT-001	TERMINI INSERTION TOOL
PT-002-H	TERMINI REMOVAL TOOL, HIGH DENSITY



High Density Connectors

Notes & Sketches:



Military Aerospace Shipboard Industrial Mining Transportation Oil & Gas Broadcast Manufacturing Marine Energy Medical

