

Amphenol SOCAPEX

# Rugged Ethernet Connectors

The Broadest Range of Ethernet Connectors  
for Harsh Environments



Ethernet is the most widely used network protocol for harsh environment applications, from Factory Automation to Battlefield Communication and In Flight Entertainment systems. As a result, Amphenol has developed the broadest range of rugged Ethernet connectors.

This guide will allow you to compare all of our solutions and choose the best one for your application. Contact your local Amphenol representative if support is required.

Logo Definitions - Market			Other		Categories					
C4ISR/Military	Avionics	Oil & gas	ATEX		5	5e	6	6A	7	
Industrial	Entertainment	Base station			+	+	+	+	+	
					Size	+	+	+	+	+
					Price	\$	\$	\$	\$	\$
						-				
						+				
Lowest						Highest				

## MIL-AERO APPLICATIONS

All products are available in ROHS compliant versions



### Miniature solutions



#### μCom

**Cat 6A-10Gb**  
 • Push-Pull or Threaded versions on same receptacle  
 • Miniature: 15mm max external diameter  
 • IP68  
 • Environmental testing based on MIL DTL-38999 - III specification  
 • 2000 Mating cycle

5	5e	6	6A	7
+	+	+	+	+
\$	\$	\$	\$	\$

8 pins individual shielding



#### 2M

**Cat 5e-1Gb**  
 • Push-Pull or Threaded versions  
 • Miniature: 16.51mm max external diameter  
 • IP67  
 • Mil-spec performance for harsh environmental conditions  
 • 2000 Mating cycles (-16 Plugs) / 500 Cycles

5	5e	6	6A	7
+	+	+	+	+
\$	\$	\$	\$	\$

7-10



#### Terrapin

**Cat 5e-1Gb**  
 • Push-Pull breakaway style or with an optional coupling ring  
 • Miniature: 15.24mm max external diameter  
 • IP68  
 • MIL-STD-461E, MIL-STD-810F/G  
 • 2000 Mating cycle

5	5e	6	6A	7
+	+	+	+	+
\$	\$	\$	\$	\$

7-14



### Factory tested plug-plug Cordsets



Available

- Factory tested & ready to install Ethernet Cordsets and Jumpers
- Large choice of connectors, same tactical Cat5e, Cat6 & Cat7 Ethernet Cables
- JD38999 versions compliant with **Vetronics MILVA NGVA standard: NATO General Vehicle Architecture**

Please consult us



### 38999 Based



#### RJF TV

**Cat 6-1Gb**  
 • Based on MIL-DTL-38999 series III/size 19  
 • Panel size: 36.53 mm  
 • Aluminum, Stainless Steel and Marine Bronze shell  
 • No tool cabling: uses standard RJ45 cordsets

5	5e	6	6A	7
+	+	+	+	+
\$	\$	\$	\$	\$



NEW



#### 38999 10 Gb Cat6A

**Cat 6A-10Gb**  
 • Combines μCom 10Gb speed with 38999 # 11 shells robustness  
 • Aluminum, Stainless Steel and Marine Bronze shell

5	5e	6	6A	7
+	+	+	+	+
\$	\$	\$	\$	\$



#### MIL-DTL-38999

**Cat 5e-1Gb**  
 • MIL-DTL-38999 series III/size 11 & 13 per NATO NGVA Milva for Vetronics  
 • Aluminum, composite, stainless steel and marine bronze  
 • High density 9-9 with shell size 9

9-9	11-35	13-35
5	5e	6
+	+	+
\$	\$	\$



#### OCS (Oval Contact System)

**Cat 6A-1Gb**  
 • MIL-DTL-38999 series III/size 13  
 • Panel size: 28.87 mm  
 • Aluminum, Stainless Steel and Marine Bronze shell  
 • Individual shielding of 4 pairs

5	5e	6	6A	7
+	+	+	+	+
\$	\$	\$	\$	\$



## MIL-AERO APPLICATIONS

All products are available in ROHS compliant versions



### Contacts for standard 38999 cavities



#### Quadrax

1 Quadrax ▶ Cat5 / 2 Quadrax ▶ Cat5e  
 •Compliant with the standard size 8 connectors cavities  
 •Panel size 9: 23.83mm (38999 series III/EN3645)  
 •Panel size 17: 33.32mm (38999 series III/EN3645)  
 •Available for MIL-DTL-38999/EN3645/EN4165/ARINC  
 •Several cables already referenced  
 •Adaptable for IEEE1394 Firewire, USB2...



Link to the 38999 connector size



#### Split-Pair Quadrax

2 Split pair Quadrax ▶ Cat 6A  
 •Compliant with the standard size 8 connectors cavities  
 •Panel size 17: 33.32mm (38999 series III/EN3645)  
 •Available for MIL-DTL-38999/EN3645/EN4165  
 •Several cables already referenced  
 (Adaptable for SATA 2.0, USB3...)



#### Lux-Beam™ Expanded Beam Termini

Cat 7 (Optical)  
 •Easy-to-clean single expanded beam termini  
 •140xFiber section  
 •Available for 38999, EN4165, EN3645  
 •Hybrid solutions possible (mix with electrical contact)  
 •For standard connectors cavities size 12 and 16

Compatible with Ethernet 10 Gb/s



## INDUSTRIAL APPLICATIONS

INDUSTRIAL@AMPHENOL  
TRUSTED GLOBALLY



#### RJF Cx

Cat 6 Aluminium  
 •Circular shell  
 •Bayonet coupling  
 •Panel size: 33.3mm  
 •Based on MIL-C-26482 series I/size 18  
 •ATEX explosion proof versions  
 •No tool cabling: uses standard RJ45 cordsets



#### RJFRB/RJF544

Cat 6  
 •Circular composite shell  
 •Reverse bayonet & Push pull coupling  
 •Panel size: 27.4mm & 31mm  
 •No tool cabling: uses standard RJ45 cordsets



#### XLRnet RJ45

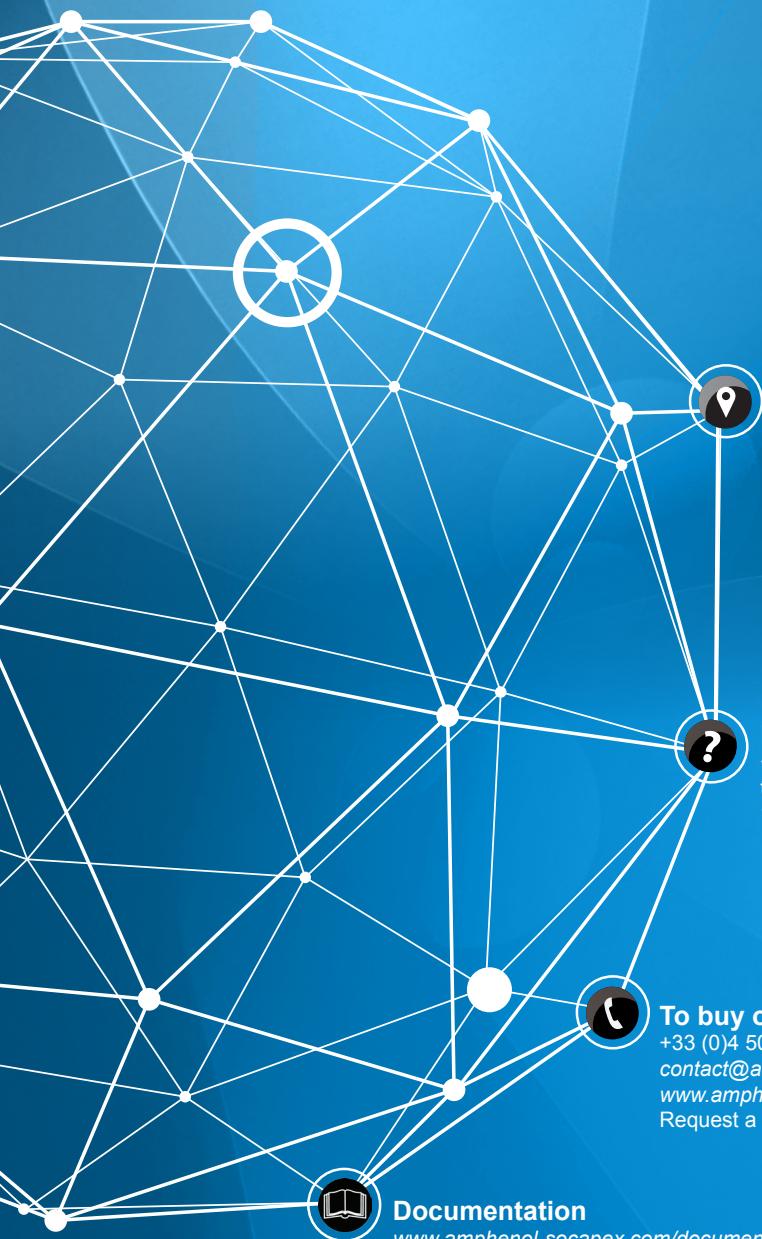
Cat 5e  
 •Circular metal shell  
 •Push pull coupling  
 •Panel size: 28.8mm  
 •EU RoHS 2 Directive 2011/65/EU  
 Nickel or Black shell  
 •Best choice for Entertainment applications



#### M12D Coding

Cat 5e  
 •Circular metal shell  
 •Threaded coupling  
 •Panel size: 20.8mm  
 •IEC61076-2-101 and 61076-2-104  
 •Best choice for Factory Automatisation and Rail Mass Transit applications





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