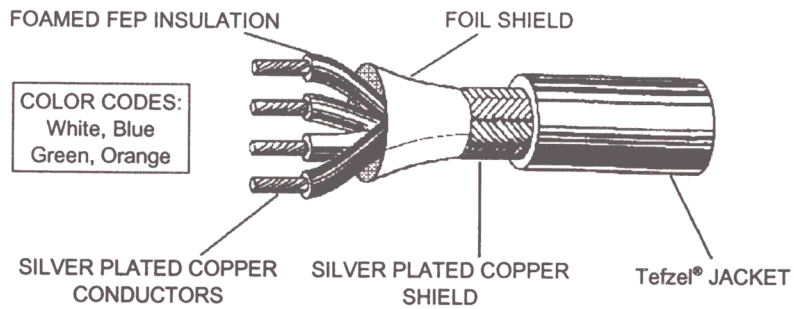
PIC WIRE & CABLE
THE ANGELUS CORPORATION

PIC P/N E10422
PRODUCT BULLETIN

10/100BASE-T QUAD (4-Conductor) CABLE



This cable has been specially designed by PIC for airborne 10- and 100Base-T Local Area Network applications as defined by ARINC Specification 646. The twisted-pair construction (two separate pairs) effectively reduces inductive interference while 100% foil *and* 95% braided shielding serve to further protect against EMI.

Data transmission aboard aircraft faces more severe environmental and EMI situations than conventional LAN systems in commercial buildings, hence special measures have been taken to preserve technical performance.

Each conductor is surrounded by a foamed FEP dielectric having a high velocity of propagation which permits smaller overall diameter and weight while retaining performance and required operating parameters. Silver-plated copper conductors and shielding assure uniform conductivity with excellent solderability. A Tefzel® jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

E10422 exceeds ANSI/TIA-568A Category 5e requirements. It is Skydrol resistant and meets the FAA flammability requirements of FAR 23.1359, FAR 25.853(a) and FAR 25.869(a)(4).

PHYSICAL DATA	
Conductors	22 AWG (19/34) SPC
Insulation	Foam FEP
Temperature	-55° to +200°C
Shield Coverage	100% (Foil), 95% (Braid)
Outer Diameter, Nominal	0.26 in.
Min. Bend Radius	2.8 in.
Weight per 100 ft.	35 lbs

ELECTRICAL DATA	
Impedance (ohms)	100
Capacitance (pF/ft) (Between Conductors)	12.5
Velocity of Propagation	78%
Attenuation (dB/100 ft)	
@ 10 MHz	2.0
@ 100 MHz	6.7
Dielectric Withstanding Voltage	3.5 KV RMS
Power Sum Near-End Cross-Talk (PS-NEXT)	
@ 10 MHz	47 dB
@ 100 MHz	32 dB

PIC P/N E10422

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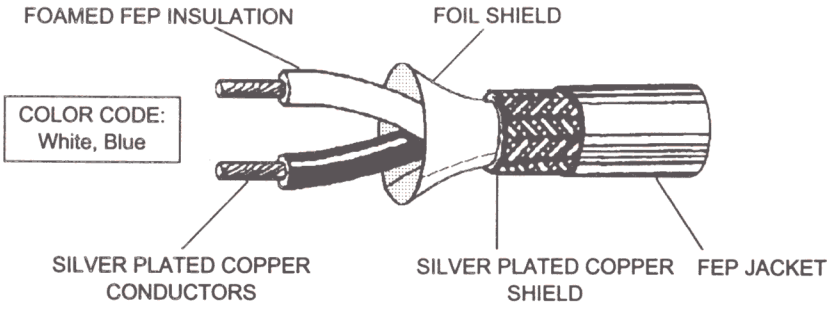
PIC P/N E10224
PRODUCT BULLETIN

10/100BASE-T 2-Conductor CABLE



This cable has been specially designed by PIC for airborne 10- and 100Base-T Local Area Network applications as defined by ARINC Specification 646. The twisted-pair construction effectively reduces inductive interference while 100% foil *and* 90% braided shielding serve to further protect against EMI. The cable is also approved by Honeywell for airborne NTSC/PAL/RS170 camera video where a 100-ohm balanced line is required.

Data transmission aboard aircraft faces more severe environmental situations than conventional LAN systems in commercial buildings, hence special measures have been taken to preserve technical perfromance.

Each conductor is surrounded by a foamed FEP dielectric having a high velocity of propagation which permits smaller overall diameter and weight while retaining performance and required operating parameters. Silver-plated copper conductors and shielding assure uniform conductivity with excellent solderability. An FEP jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

This cable meets the FAA flammability requirements of FAR 23.1359, FAR 25.853(a) and FAR 25.869(a)(4). It is also Skydrol resistant.

PHYSICAL DATA

Conductors	24 AWG (7/32) SPC
Insulation	Foam FEP
Temperature	-55° to +200°C
Shield Coverage	100% (Foil), 90% (Braid)
Outer Diameter, Nominal	0.171 in.
Min. Bend Radius	0.85 in.
Weight per 100 ft.	2.1 lbs

ELECTRICAL DATA

Impedance (ohms)	100
Capacitance (pF/ft) (Between Conductors)	13.0
Velocity of Propagation	80%
Attenuation (dB/100 ft)	
@ 10 MHz	1.9
@ 100 MHz	6.7
Dielectric Withstanding Voltage	1.5 KV RMS

PIC P/N E10224

A companion twisted, shielded QUAD (4-conductor) LAN cable is also available as PIC P/N E10424

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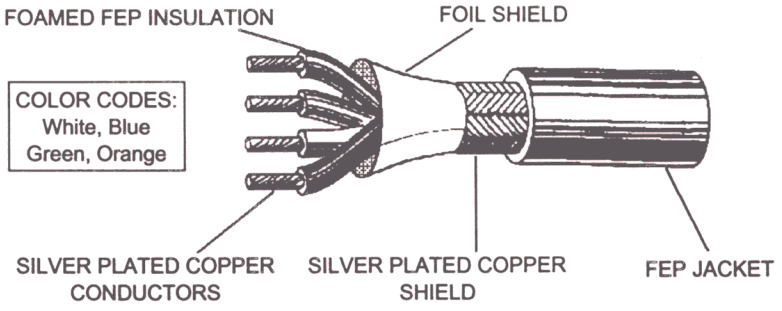
PIC P/N E10424
PRODUCT BULLETIN

10/100BASE-T QUAD (4-Conductor) CABLE



This cable has been specially designed by PIC for airborne 10- and 100Base-T Local Area Network applications as defined by ARINC Specification 646. The twisted-pair construction (two separate pairs) effectively reduces inductive interference while 100% foil *and* 95% braided shielding serve to further protect against EMI.

Data transmission aboard aircraft faces more severe environmental and EMI situations than conventional LAN systems in commercial buildings, hence special measures have been taken to preserve technical performance.

Each conductor is surrounded by a foamed FEP dielectric having a high velocity of propagation which permits smaller overall diameter and weight while retaining performance and required operating parameters. Silver-plated copper conductors and shielding assure uniform conductivity with excellent solderability. An FEP jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

E10424 exceeds ANSI/TIA-568A Category 5e requirements. It is Skydrol resistant and meets the FAA flammability requirements of FAR 23.1359, FAR 25.853(a) and FAR 25.869(a)(4).

PHYSICAL DATA

Conductors	24 AWG (7/32) SPC
Insulation	Foam FEP
Temperature	-55° to +200°C
Shield Coverage	100% (Foil), 95% (Braid)
Outer Diameter, Nominal	0.21 in.
Min. Bend Radius	1.2 in.
Weight per 100 ft.	3.2 lbs

ELECTRICAL DATA

Impedance (ohms)	100
Capacitance (pF/ft) (Between Conductors)	13.0
Velocity of Propagation	80%
Attenuation (dB/100 ft)	
@ 10 MHz	1.9
@ 100 MHz	6.7
Dielectric Withstanding Voltage	1.5 KV RMS
Structural Return Loss (SRL)	
@ 10 MHz	23.0 dB
@ 100 MHz	17.0 dB
Power Sum Near-End Cross-Talk (PS-NEXT)	
@ 10 MHz	47 dB
@ 100 MHz	32 dB

PIC P/N E10424

A companion shielded, twisted pair (2-conductor) LAN cable is also available as PIC P/N E10224

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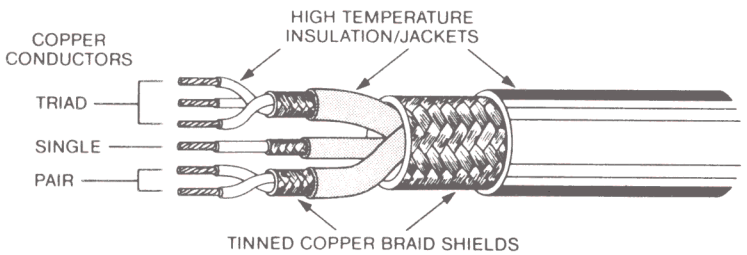
PRODUCT BULLETIN

Omega/VLF ANTENNA CABLE



PART NUMBER C410622 ILLUSTRATED

Multiple shields, with 95% minimum coverage, provide optimum interference protection. Conductor insulation and jackets are light weight high temperature compounds.

The cable is Skydrol resistant and meets the specifications of MIL-C-27500 and the flame/smoke requirements of FAR 25.1359(d).

Part No.	Cable Configuration		Lbs./100 ft.	Designated System
D710222	2/C 22 AWG;	1 pair	3.3	All Canadian Marconi, E-Field Universal UNS-1 (764), E-Field
B110320	3/C 20 AWG;	1 single, 1 pair	4.0	Global • Wulfsberg GNS 500, GNS-X
C410322	3/C 22 AWG;	1 single, 1 pair	3.8	All Global, E-Field
B110622	6/C 22 AWG;	3 pairs	8.5	Global • Wulfsberg GNS 500, GNS-X Canadian Marconi CMA 734, 764 Universal UNS-1(764 Sensor) All Tracor, E-Field
C410622	6/C 22 AWG;	1 single, 1 pair, 1 triad	8.5	Global • Wulfsberg GNS 1000 Universal UNS-1(1030-2), E-Field All Tracor, E-Field
C410722	7/C 22 AWG;	2 pairs, 1 triad	9.3	Global • Wulfsberg GNS 1000 Collins LRN 85, FMS 90
C910824	8/C 24 AWG;	4 pairs	13.5	Bendix/King FMS KNS 660
C410922	9/C 22 AWG;	3 pairs, 1 triad	11.0	Global • Wulfsberg GNS 1000 Universal UNS-1(1030-2 Sensor)
A551022*	10/C 22 AWG;	2 pairs, 2 triads	13.4	Tracor TA 7800*, 7880*, 7900* Trimble TNL 7880*, 7900* Litton LTN 211*, 311* Honeywell/Sperry FMS OZ 800
D411022*	10/C 22 AWG;	2 pairs, 2 triads	12.0	Canadian Marconi CMA 771* Litton LTN 3000, 3100 AWA 3100

*ARINC 599

AVAILABLE IN STOCK FOR IMMEDIATE SHIPMENT

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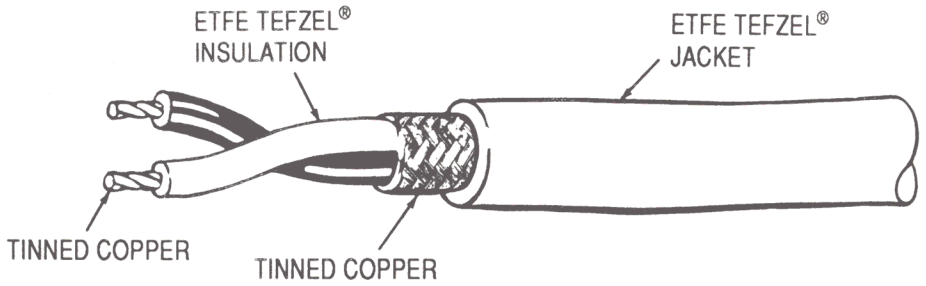
PRODUCT BULLETIN

CONTROLLED IMPEDANCE CABLE



This special cable is designed for use in ARINC 429 data bus systems, in addition to other approved applications listed below:

Honeywell has approved D620224 for handling high-speed digital video information, including:

- UDI port inputs/outputs between DATA NAV processors, LSZ-850 Lightning Sensor System processors and PRIMUS weather radar indicators.
- 'Picture bus' signals between PRIMUS 450, 650, 800 or 870 weather radar receiver/transmitters and EFIS symbol generators.

AlliedSignal has approved D620224 for video and deflection cabling between the symbol generators and display units for the EFS 40/50.

This cable is Skydrol resistant and meets the specifications of MIL-C-27500 and the pertinent flame/smoke requirements of FAR 25.853(a) and FAR 25.869(a)(4).

PHYSICAL DATA

Conductors	24 AWG x 19 strands
Color Code	Blue and White
Shield	95% Minimum Coverage
Outer Diameter (In.)	.126 Nominal
Weight per 100 ft. (lbs)	1.2

ELECTRICAL DATA

Impedance* Nominal (ohms)	70
Capacitance* Nominal (pF/ft.)	30
Attenuation at 1 MHz Maximum (db/100ft.)	1.4
Temperature Rating (deg C.)	150

*per MIL-C-915

PIC P/N D620224

Honeywell P/N 3718911-1
Bendix/King P/N 025-05114-0000

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PIC WIRE & CABLE
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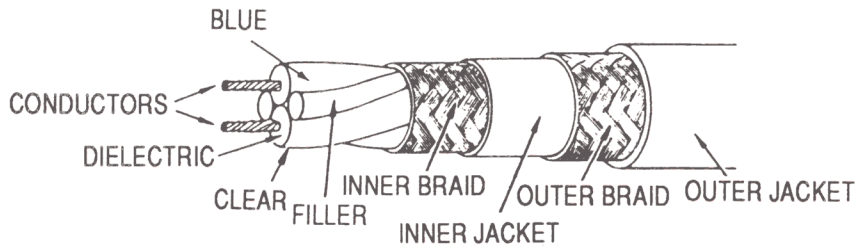
PRODUCT BULLETIN

HIGH TEMPERATURE QUADRAXIAL CABLE



This is the AlliedSignal approved Quadrax Cable for RDS series 81/82/84/86 Radars, for the ARINC 453 bus connection from the radar sensor to radar display and symbol generators, and to interface with EFIS 10 and EFS 40/50 systems. It is also ideal for use in ADF or other applications where the limitation of noise pickup or EMI suppression is required.

The conductor insulation and the inner and outer jacket are FEP Teflon. The double shields are silver plated copper with 95% minimum coverage.

The cable is Skydrol resistant and meets the specifications of MIL-C-27500 and the pertinent flame/smoke requirements of FAR 25.853 (a) and FAR 25.869 (a)(4).

PHYSICAL DATA

Conductor	22 AWG (19 x .0058") SPC
Temperature	-55°C to +200°C
Nominal Outer Diameter (in.)	.250
Minimum Bend Radius (in.)	1.25
Weight per 100 ft. (lbs.)	6.0

ELECTRICAL DATA

Impedance Nominal (ohms)	78
Capacitance Nominal (pF/ft.)	24.5
Voltage Rating (volts)	600
Attenuation at 1 MHz Maximum db/100 ft.)	1.4

PIC P/N D5102QX

Bendix P/N 44152-0002
King P/N 024-00064-0000 Rev. 3

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