



Twinaxial Cables

Coaxial & Communication Cables

Overall Shielded
Precision Pair

MIL-STD-1553B

Multiplexing Databus Cable

Application

These shielded twinaxial cable constructions generally conform to the electrical transmission requirements of MIL-STD-1553B for Command/ Response Multiplex Databus. Avionics, military vehicle, and C3I systems are the most common applications for this military protocol standard. These databus cables are available with a variety of insulation, jacketing, and shielding configurations; providing the system designer with a broad choice of alternatives. Temperature rating, shielding effectiveness, size, weight, and cost may be evaluated. Several representative designs are listed below. Consult Rockbestos-Surprenant if you require additional information or design data.

Construction Data

For details regarding conductors, insulations, shields, jackets, and dimensions, refer to the tabular data below.

Electrical Data

All of these constructions meet or exceed the requirements of MIL-STD-1553B.

Characteristic Impedance (Ohms)	77±5
Attenuation at 1MHz (db/100 ft.) (db/m)	1.4 max. (4.59)
Mutual Capacitance (pf/ft.) (pf/m)	25 nom. (82)

Product Number	Conductor Description (Diam.-Inch) mm	Insulation Material (Diam.-Inch) mm	Shield Description	Jacket Material (Diam.-Inch) mm	Nom. Weight (#/M') (kg/km)
20157	22AWG (19/34) Tinned copper (0.032") .81	XL Tefzel (0.064") 1.62	36 AWG Braid 91% Coverage Tinned Copper	XL Tefzel (0.165") 1.22	21.0 31
20158	24AWG (19/36) Silver plated Copper alloy (0.023") .58	XL Tefzel (0.052") 1.32	38 AWG Braid 91% Coverage Tinned Copper	XL Tefzel (0.137") 3.48	12.6 19
20159	24AWG (19/36) Silver plated Copper alloy (0.023") .58	XL Tefzel (0.048") 1.22	Optimized 38 AWG Braid Tinned Copper	XL Tefzel (0.131") 3.33	14.5 21
20160	26AWG (19/38) Silver plated Copper alloy (0.021") .53	XL Tefzel (0.039") .99	38 AWG Braid 91% Coverage Tinned Copper	XL Tefzel (0.111") 2.82	9.8 14.6
20161	24AWG (19/36) Silver plated Copper alloy (0.023") .58	XL Foam Polyolefin (0.044") 1.12	36 AWG Braid 91% Coverage Tinned Copper	XL Zero Halogen Polyolefin (0.138") 3.50	15.3 22
20162	24AWG (19/36) Silver plated Copper alloy (0.025") .63	XL Tefzel (0.048") 1.22	Double 38 AWG Braid Tinned Copper	XL Tefzel (0.147") 3.73	20.2 30
20163	24AWG (19/36) Silver plated Copper alloy (0.023") .58	XL Tefzel (0.052") 1.32	Isolated Double 38 AWG Braids Tinned Copper	XL Tefzel (0.170") 4.32	21.9 32

* Color coding is provided by using solid color insulation, blue and white.