



Product: [81553](#)

77Ω Twinax, #24 SCHSCA, TFE, SCHSCA Braid, PFA Jkt

Product Description
Twinax, 77 ohm, 24 AWG stranded (19x36) .024" silver-coated high-strength copper alloy conductor, TFE insulation, silver-coated high strength copper alloy braid shield (93% coverage), PFA jacket, commercial non-QPL product

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
24	19x36	SHSCA - Silver Coated High Strength Copper Alloy	0.024 in	1

Conductor Count: 2

Insulation

Material	Material Trade Name	Nominal Diameter
PTFE - Polytetrafluoroethylene	Teflon®	0.042 in

Outer Shield

Type	Material	Coverage [%]
Braid	Silvered High Strength Copper Alloy (SHSCA)	93%

Outer Jacket

Material	Nominal Diameter
PFA - Perfluoroalkoxy	0.129 in

Electrical Characteristics

Conductor DCR

Nominal Outer Shield DCR	Outer Conductor DCR
7.3 Ohm/1000ft	7.3 Ohm/1000ft

Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance	Nom. Capacitance Conductor to Shield
5 pF/ft	24 pF/ft	24.0 pF/ft

Inductance

Nominal Inductance
0.118 µH/ft

Impedance

Nominal Characteristic Impedance
77 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	1.2 dB/100ft
10 MHz	4.0 dB/100ft

50 MHz	9.2 dB/100ft
100 MHz	13.0 dB/100ft
200 MHz	18.4 dB/100ft
400 MHz	26.1 dB/100ft
700 MHz	34.6 dB/100ft
900 MHz	39.3 dB/100ft
1000 MHz	41.4 dB/100ft

Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
70 ns/100m	1.45 ns/ft	70%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)
1 MHz	1.4 dB/100ft

Voltage

UL Voltage Rating
150 V RMS

Temperature Range

UL Temp Rating:	200°C
Operating Temp Range:	-55°C To +200°C

Mechanical Characteristics

Bulk Cable Weight:	15 lbs/1000ft
Max. Pull Tension:	12 lbs
Min. Bend Radius/Minor Axis:	1.5 in

Standards

NEC/(UL) Compliance:	CL2P
CPR Euroclass:	Eca
Military Compliance:	Commercial, non-QPL product (M17/176-00002, MIL-STD-1553 Data Bus Cable)

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	No
EU Directive 2011/65/EU (RoHS 2):	No
EU Directive 2012/19/EU (WEEE):	No
EU Directive 2015/863/EU (RoHS 2 amendment):	No
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	No

Suitability

Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	NFPA 262
IEC Flammability:	IEC 60332-1-2
UL voltage rating:	150 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	Yes
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Part Number

Variants

Item #	Color	Put-Up Type	Length	UPC
81553 006500	Blue	Reel	500 ft	612825195559

81553 0061000	Blue	Reel	1,000 ft	612825195542
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Footnote:	F - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 50'. Z - FINAL PUT-UP MAY VARY (= OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.
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History

Update and Revision:	Revision Number: 0.336 Revision Date: 09-10-2021
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