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1-800-Belden1

**General Description:**

Twinax, 24 AWG stranded (19x36) .024" silver-coated high-strength copper alloy conductor, TFE Teflon® insulation, SC high strength CA braid shield (93% coverage), PFA jacket.

**Physical Characteristics (Overall)**

**Conductor**

AWG:

| # Pairs | AWG | Stranding | Conductor Material                                | Dia. (mm) |
|---------|-----|-----------|---|-----------|
| 1       | 24  | 19x36     | SCHSCA - Silver Coated High Strength Copper Alloy | 0.6096    |

Total Number of Conductors: 2

**Insulation**

Insulation Material:

| Insulation Trade Name | Insulation Material       | Wall Thickness (mm) |
|-----------------------|---------------------------|---------------------|
| Teflon®               | TFE - Tetrafluoroethylene | 0.229               |

**Outer Shield**

Outer Shield Material:

| Type  | Outer Shield Material                             | Coverage (%) |
|-------|---|--------------|
| Braid | SCHSCA - Silver-Coated High Strength Copper Alloy | 93           |

**Outer Jacket**

Outer Jacket Material:

| Outer Jacket Material | Nom. Wall Thickness (mm) |
|-----------------------|--------------------------|
| PFA                   | 0.356                    |

**Overall Cable**

Overall Nominal Diameter: 3.277 mm

**Mechanical Characteristics (Overall)**

Operating Temperature Range: -55°C To +200°C

UL Temperature Rating: 200°C

Bulk Cable Weight: 22.323 Kg/Km

Max. Recommended Pulling Tension: 53.378 N

Min. Bend Radius/Minor Axis: 38.100 mm

**Applicable Specifications and Agency Compliance (Overall)**

**Applicable Standards & Environmental Programs**

NEC/(UL) Specification: CL2P

EU Directive 2002/95/EC (RoHS): No

Military Specification: MIL-C-17, M17/176-00002, MIL-STD-1553 DATA BUS CABLE

**Flame Test**

UL Flame Test: NFPA 262

**Plenum/Non-Plenum**

Plenum (Y/N): Yes

**Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

| Impedance (Ohm) |
|-----------------|
| 77              |

Nom. Inductance:

| Inductance (µH/m) |
|-------------------|
| 0.387158          |

Max. Mutual Capacitance:

| Capacitance (pF/m) |
|--------------------|
| 78.744             |

Maximum Capacitance Unbalance:

| Description | Capacitance (pF/m) |
|-------------|--------------------|
|-------------|--------------------|

# Detailed Specifications & Technical Data



## METRIC MEASUREMENT VERSION

81553 Twinax - Twinax

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### Nominal Velocity of Propagation:

VP (%)

70

### Nominal Delay:

Delay (ns/m)

5.31522

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

23.9513

### Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 1           | 3.9372                |
| 10          | 13.124                |
| 50          | 30.1852               |
| 100         | 42.653                |
| 200         | 60.3704               |
| 400         | 85.6341               |
| 700         | 113.523               |
| 900         | 128.943               |
| 1000        | 135.833               |

### Max. Attenuation:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-------------|-------------------|------------------|-----------------------|
|             | 1           |                   |                  | 4.5934                |

### Max. Operating Voltage - UL:

Voltage

150 V RMS

## Notes (Overall)

Notes: Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

## Put Ups and Colors:

| Item #        | Putup    | Ship Weight | Color       | Notes | Item Desc        |
|---------------|----------|-------------|-------------|-------|------------------|
| 81553 0061000 | 1,000 FT | 18.000 LB   | BLUE, LIGHT | F Z   | 2#24 TFE BRD PFA |
| 81553 006500  | 500 FT   | 9.000 LB    | BLUE, LIGHT | F Z   | 2#24 TFE BRD PFA |

### Notes:

F = MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 50'

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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