



ATT-TP-76480-002
24 AWG Shielded Hardwired Cable (1107A, 1116A and 1161A Types)
Issue 2, March 5, 2007

Description: Aluminum-Polyester Shielded Central Office Cable for Hardwired Use between Network Elements and DSX-1 Type Panels or for Collocation-Related Applications such as DS1(Hi-Capacity and/or DSL Related) and lower speeds

Compliances: UL Listed Type MPR/CMR
ICEA S-90-661
NEC 800 Type CMR

Construction:

Conductors: 24 AWG solid tinned annealed copper
Insulation: Solid PVC for 1107A and 1116A; Solid FR Polyolefin Insulation (1161A)
Pairing: Twisting sufficient to meet attenuation (1107A, 1116A and 1161A) and crosstalk requirements (1161A)
Insulation Color Coding: See Below
Shielding: Polyester - aluminum foil (single for 1107A and 1161A, dual for 1116A)
Drain Wire: 24AWG solid tinned copper
RipCord: Applied under jacket(s)
Outer Jacket: Gray PVC, minimum thickness 0.025 inch
Outer Jacket Diameter: See Below

Packaging: Available on Reels(minimum 1000 foot product)

Electrical Characteristics:

DC Conductor Resistance(max.): 28.6 Ohms/1000 ft @ 20 degrees C
DC Resistance Unbalance(max.): 5%
Dielectric Strength: 2500 volts DC for two seconds @ 20 degrees C
Insulation Resistance(min.): 500 Megohms/1000 ft @ 20 degrees C
Mutual Capacitance(max.): 24 pF/ft @20 degrees C for 1107A,
17 pF/ft @ 20 degrees C for 1116A and 1161A
Attenuation(max.):
For 1107A: 10.0 dB/1000ft @ 1 MHz @ 20 degrees C

For 1116A: 7.0 dB/1000 ft @ 0.772 MHz @ 20 degrees C
7.9 dB/1000 ft @ 1 MHz @ 20 degrees C
9.9 dB/1000 ft @ 1.576 MHz @ 20 degrees C
16.0 dB/1000 ft @ 4.224 MHz @ 20 degrees C

For 1161A: 6.0 dB/1000 ft @ 0.772 MHz @ 20 degrees C
 6.5 dB/1000 ft @ 1 MHz @ 20 degrees C
 12.5 dB/1000 ft @ 4 MHz @ 20 degrees C
 20 dB/1000 ft @ 10 MHz @ 20 degrees C
 25 dB/1000 ft @ 16 MHz @ 20 degrees C

Characteristic Impedance: 85 +/- 15 Ohms up to 16 MHz @ 20 degrees C for 1107A

100 +/- 15 Ohms up to 16 MHz @ 20 degrees C for 1116A and 1161A

Crosstalk: Near End – referenced to 58 dB at 1 MHz @ 20 degrees C, only for 1161A

Crosstalk: Far End – referenced to 57 dB at 1 MHz @ 20 degrees C, only for 1161A

Operating Temperature(max.): 75 degrees C

Operating Voltage(max): 300 VDC

Insulation Color Coding:

For 1107A:

<u>Pair</u>	<u>Tip</u>	<u>Ring</u>
1	WH-BL	BL-WH
2	WH-OR	OR-WH
3	WH-GR	GR-WH
4	WH-BR	BR-WH
5	WH-SL	SL-WH
6	RD-BL	BL-RD
7	RD-OR	OR-RD
8	RD-GR	GR-RD
9	RD-BR	BR-RD
10	RD-SL	SL-RD
11	BK-BL	BL-BK
12	BK-OR	OR-BK
13	BK-GR	GR-BK
14	BK-BR	BR-BK
15	BK-SL	SL-BK
16	YL-BL	BL-YL
17	YL-OR	OR-YL
18	YL-GR	GR-YL
19	YL-BR	BR-YL
20	YL-SL	SL-YL

21	VI-BL	BL-VI
22	VI-OR	OR-VI
23	VI-GR	GR-VI
24	VI-BR	BR-VI
25	VI-SL	SL-VI

For 1116A:

<u>Pair</u>	<u>Tip</u>	<u>Ring</u>
1	WH-BL	BL
2	WH-OR	OR
3	WH-GR	GR
4	WH-BR	BR
5	WH-SL	SL
6	RD-BL	BL-RD
7	RD-OR	OR-RD
8	RD-GR	GR-RD
9	RD-BR	BR-RD
10	RD-SL	SL-RD
11	BK-BL	BL-BK
12	BK-OR	OR-BK
13	BK-GR	GR-BK
14	BK-BR	BR-BK
15	BK-SL	SL-BK
16	YL-BL	BL-YL
17	YL-OR	OR-YL
18	YL-GR	GR-YL
19	YL-BR	BR-YL
20	YL-SL	SL-YL
21	VI-BL	BL-VI
22	VI-OR	OR-VI
23	VI-GR	GR-VI
24	VI-BR	BR-VI
25	VI-SL	SL-VI

For 1161A:

<u>Pair</u>	<u>Tip</u>	<u>Ring</u>
1	WH	BL
2	WH	OR
3	WH	GR
4	WH	BR
5	WH	SL
6	RD	BL
7	RD	OR
8	RD	GR
9	RD	BR
10	RD	SL
11	BK	BL
12	BK	OR
13	BK	GR
14	BK	BR
15	BK	SL
16	YL	BL
17	YL	OR
18	YL	GR
19	YL	BR
20	YL	SL
21	VI	BL
22	VI	OR
23	VI	GR
24	VI	BR
25	VI	SL

Outer Jacket Diameter:

For 1107A:

<u>Pairs</u>	<u>Typical Diameter(in)</u>
2	0.15
4	0.17
6	0.21
8	0.28
12	0.31
18	0.34
25	0.39
32	0.40
50	0.52
100	0.72

For 1116A:

<u>Pairs</u>	<u>Typical Diameter(in)</u>
2	0.22
5	0.26
16	0.39
25	0.45
28	0.49

For 1161A:

<u>Pairs</u>	<u>Typical Diameter(in)</u>
4	0.25
6	0.28
12	0.34
16	0.39
25	0.49
28	0.52
32	0.55
50	0.65
100	1.20

