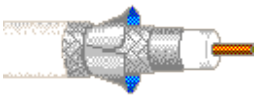
Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

7916A Coax - Series 6



Description:

Series 6, 18 AWG solid .040" bare copper conductor, gas-injected foam polyethylene insulation, Duobond® + aluminum braid shields (60% and 40% coverage), PVC jacket (black or white).

Usage (Overall)

Suitable Applications:	HDTV, DBS, Broadband CATV, Cable Modem

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	18	Solid	BC - Bare Copper	.040

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FPE - Foam Polyethylene	.180

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Bonded Duofoil®	Tape	Bonded Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	AL - Aluminum	60
3	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
4		Braid	AL - Aluminum	40

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cabling

Overall Nominal Diameter:	0.298 in.

Mechanical Characteristics (Overall)

Storage Temperature Range:	-40°C To +80°C
Installation Temperature Range:	-30°C To +80°C
Operating Temperature Range:	-40°C To +80°C
Bulk Cable Weight:	32 lbs/1000 ft.
Max. Recommended Pulling Tension:	104 lbs.
Min. Bend Radius (Install)/Minor Axis:	2 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CATV, CM
CEC/C(UL) Specification:	CM

EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Series Type:	Series 6

Flame Test

UL Flame Test:	UL1685 UL Loading

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	7916AP

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)	Tolerance (Ohms)
75	± 3

Nom. Inductance:

Inductance (µH/ft)
.097

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
16.2

Nominal Velocity of Propagation:

VP (%)
83

Nominal Delay:

Delay (ns/ft)
1.2

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
6.4

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
4.8

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
5	0.5
55	1.4
211	2.6
500	4.1
750	5.1
862	5.5
1000	6.0
1450	7.8
1800	8.6
2250	9.8
3000	11.3

Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
5	0.67
55	1.60
211	2.87
500	4.48
750	5.59
862	5.98
1000	6.54
1450	8.00
1800	8.80
2250	10.0
3000	11.9

Max. Operating Voltage - UL:

Voltage
300 V RMS

Shield Effectiveness:

Start Freq. (MHz)	Stop Freq. (MHz)	Effectiveness (dB)
5	50	105
50	1000	110

Typical Structural Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Typical SRL (dB)
5	1000	30
1000	3000	24

Minimum Structural Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5	1000	20
1000	2250	15
2250	3000	10

Sweep Test

Sweep Testing: 5 MHz - 3 GHz

Notes (Overall)

Notes: Shielding effectiveness determined from screening attenuation measurement when tested in accordance with IEC 61196-1.

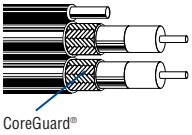
Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7916A 009U1000	1,000 FT	36.000 LB	WHITE		#18 LDPE/GIFHDLDPE DBSH FRPVC
7916A 009U500	500 FT	18.500 LB	WHITE		#18 LDPE/GIFHDLDPE DBSH FRPVC
7916A 0091000	1,000 FT	35.000 LB	WHITE	C	#18 LDPE/GIFHDLDPE DBSH FRPVC
7916A 009500	500 FT	19.500 LB	WHITE	C	#18 LDPE/GIFHDLDPE DBSH FRPVC
7916A 010U1000	1,000 FT	36.000 LB	BLACK		#18 LDPE/GIFHDLDPE DBSH FRPVC
7916A 010U500	500 FT	18.500 LB	BLACK		#18 LDPE/GIFHDLDPE DBSH FRPVC
7916A 0101000	1,000 FT	35.000 LB	BLACK	C	#18 LDPE/GIFHDLDPE DBSH FRPVC
7916A 010500	500 FT	19.500 LB	BLACK	C	#18 LDPE/GIFHDLDPE DBSH FRPVC

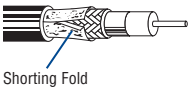
Notes:
C = CRATE REEL PUT-UP.

DBS Cable
Series 6

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
Series 6 • 18 AWG Solid .040″ Bare Copper-covered Steel Conductor • Duobond® II + Aluminum Braid Shield (60% Coverage)																			
Gas-injected Foam Polyethylene Insulation • Black Polyethylene Jacket																			
Burial 80°C	**1843A**	—	1000	304.8	64.0	29.1	18 AWG (solid) .040″ BCCS 28.0Ω/M′ 91.9Ω/km	.180	4.57	Duobond II* + 60% Aluminum Braid 9.0Ω/M′ 29.5Ω/km	.273 x .750	6.93 x 19.05	75	83%	16.2	53.1	5 55 211 500 750 862 1000 1450 1800 2250	.5 1.4 2.6 4.1 5.1 5.5 6.0 7.8 8.6 9.8	1.6 4.6 8.5 13.5 16.7 18.0 19.7 25.6 28.2 32.2
HDTV Series 6 • 18 AWG Solid .040″ Bare Copper Conductor • Duobond + Aluminum Braid Shields (77% and 80% Coverage)																			
Gas-injected Foam Polyethylene Insulation • PVC Jacket (Black or White)																			
80°C	**7915A**	NEC: CATV CM CEC: CM	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	16.5 18.0 32.0 32.0	7.5 8.2 14.5 14.5	18 AWG (solid) .040″ BC 6.4Ω/M′ 21.0Ω/km	.180	4.57	Duobond Plus®* 77% & 80% Aluminum Braids 4.6Ω/M′ 15.1Ω/km	.275	6.99	75	83%	16.2	53.1	5 55 211 500 750 862 1000 1450 1800 2250	.5 1.4 2.6 4.1 5.1 5.5 6.0 7.8 8.6 9.8	1.6 4.6 8.5 13.5 16.7 18.0 19.7 25.6 28.2 32.2
Series 6 • 18 AWG Solid .040″ Bare Copper Conductor • Duobond + Aluminum Braid Shields (60% and 40% Coverage)																			
Gas-injected Foam Polyethylene Insulation • PVC Jacket (Black or White)																			
	7916A	NEC: CATV CM CEC: CM	U-500 500 U-1000 1000	U-152.4 152.4 U-304.8 304.8	18.5 19.5 36.0 35.0	8.4 8.9 16.3 15.9	18 AWG (solid) .040″ BC 6.4Ω/M′ 21.0Ω/km	.180	4.57	Duobond IV* 60% & 40% Aluminum Braids 4.8Ω/M′ 15.7Ω/km	.298	7.57	75	83%	16.2	53.1	5 55 211 500 750 862 1000 1450 1800 2250	.5 1.4 2.6 4.1 5.1 5.5 6.0 7.8 8.6 9.8	1.6 4.6 8.5 13.5 16.7 18.0 19.7 25.6 28.2 32.2



.045″ (1.14mm) copper-covered steel static ground.
Suitable for Outdoor and Direct Burial applications.



Sweep tested 950 MHz to 2.25 GHz.

BC = Bare Copper • BCCS = Bare Copper-covered Steel • DCR = DC Resistance

*Duobond II = Bonded Duofoil® (100% coverage) + aluminum braid (67% coverage).
Duobond Plus = Bonded Duofoil (100% coverage) + aluminum braid (67% coverage) + shorting fold.
Duobond IV = Bonded Duofoil (100% coverage) + aluminum braid (67% coverage) + Duofoil (100% coverage) + aluminum braid (46% coverage).