




Product: [H121A01](#) 

COAX H121 AL PE CATV

Product Description

COAX [0.8/3.5] H121 AL PE CATV

Technical Specifications

Product Overview

Environmental Space:	Outdoor
Suitable Applications:	Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117-2-2 and EN 50117-2-5; Operating at frequencies between 5 MHz and 3000 MHz

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	Diameter +/- Tolerance	No. of Coax
21	Solid	BC - Bare Copper	0.8 mm	0.015 mm	1

Conductor Count: 1

Insulation

Type	Material	Nominal Diameter	Diameter +/- Tolerance
Dielectric	FPE - Foamed Polyethylene	3.5 mm	0.15 mm

Outer Shield Material

Type	Layer	Material	Coverage [%]	Min. Overlap	Nominal Diameter	Diameter +/- Tolerance	Coverage +/- Tolerance
Tape	1	Aluminum/Polyester/Aluminum		2 mm			
Braid	2	TC - Tinned Copper	37 %		4.1 mm	0.15 mm	4 %

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance
PE - Polyethylene	5 mm	0.3 mm

OuterJacket1, Table Note: According to European Standard HD 624

Construction and Dimensions

Min Elongation at Breakof Jacket:	300 %
Min Tensile Strength of Jacket:	10 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. Conductor Loop	Max. Shield DCR
35 Ohm/km	75 Ohm/1000ft	40 Ohm/km

Capacitance

Nom. Capacitance	Capacitance Tolerance
53 pF/m	2 pF/m

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance	Regularity of Impedance
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75 Ohm	3 Ohm	Min. 40 dB
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High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
5 MHz	2.3 dB/100m
50 MHz	5.9 dB/100m
100 MHz	8.1 dB/100m
230 MHz	12.1 dB/100m
400 MHz	15.9 dB/100m
800 MHz	22.7 dB/100m
862 MHz	23.6 dB/100m
1000 MHz	25.6 dB/100m
1350 MHz	30 dB/100m
1750 MHz	34.5 dB/100m
2150 MHz	39.6 dB/100m
2400 MHz	41 dB/100m
3000 MHz	45.9 dB/100m

Delay

Nominal Velocity of Propagation (VP) [%]	Velocity of Propagation Tolerance
84 %	2 %

High Freq

Frequency [MHz]	Min. RL (Return Loss) [dB]
5 - 30 MHz	20 dB
30 - 470 MHz	20 dB
470 - 1000 MHz	18 dB
1000 - 2000 MHz	16 dB
2000 - 3000 MHz	15 dB

High Freq Table Note:	In each frequency band, 3 peak values up to 4 dB lower are allowed
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Screening

Frequency [MHz]	Min. Screening Attenuation	Min. Screening Attenuation After Flexing
30 - 1000 MHz	75 dB	
1000 - 2000 MHz		65 dB
2000 - 3000 MHz		55 dB

Screening Class:	C
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Transfer Impedance

Frequency [MHz]	Transfer Impedance
5-30 MHz	Max. 50 mOhm/m

Voltage

Voltage Test Dielectric
2.0 kV DC

Temperature Range

Installation Temp Range:	-5°C To +50°C
Storage Temp Range:	-40°C To +70°C
Operating Temp Range:	-40°C To +70°C

Mechanical Characteristics

Min Bend Radius (W/o Pulling Strength):	25 mm
Crush Resistance:	Max. 1% (load of 700N) N
Adhesion Dielectric:	6.3-63 N at 25 mm N

Standards

CENELEC Compliance:	EN 50117-2-2, EN 50117-2-5 and EN 50117-1
RG Type:	59/U Type
Series Type:	Series 59

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	1998-01-01
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Part Number

Variants

Item #	Color	Length
H121A01.001000	Black	1,000 m
H121A01.00500	Black	500 m
H121A01.005000	Black	5,000 m
H121A01.00B100	Black	100 m

History

Update and Revision:	Revision Number: 0.157 Revision Date: 01-31-2020
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