



**Product:** [H121A01](#)

COAX H121 AL PE CATV

## Product Description

COAX [0.8/3.5] H121 AL PE CATV

## Technical Specifications

### Product Overview

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
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### 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
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#### Insulation

Type	Material	Nominal Diameter	Diameter +/- Tolerance
Dielectric	PE - Polyethylene (Foam)	3.5 mm	0.15 mm

#### Outer Shield Material

Type	Layer	Material	Coverage [%]	Min. Overlap	Nominal Diameter	Diameter +/- Tolerance	Coverage +/- Tolerance
Tape	1	Tri-Laminate (Alum+Poly+Alum)	100%	2 mm			
Braid	2	Tinned Copper (TC)	40%		4.1 mm	0.15 mm	4%

#### Outer Jacket Material

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

Table Notes:	According to European Standard EN 50290-2-20
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### 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
75 Ohm	3 Ohm	Min. 40 dB

### 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

Table Notes: Max. attenuation 10% higher

### 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

Table Notes: In each frequency band, 3 peak values up to 4 dB lower are allowed

### 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

### 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:	59

## Applicable Environmental and Other Programs

Environmental Space:	Outdoor
EU RoHS Compliance Date (yyyy-mm-dd):	1998-01-01

## Part Number

### Variants

Item #	Color	Putup Type	Length	EAN
H121A01.00B100	Black	Reel	100 m	8719605085597
H121A01.00500	Black	Reel	500 m	8719605085573
H121A01.001000	Black	Reel	1,000 m	8719605085566
H121A01.005000	Black	Reel	5,000 m	8719605085580

## History

Update and Revision:	Revision Number: 0.177 Revision Date: 12-17-2020
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