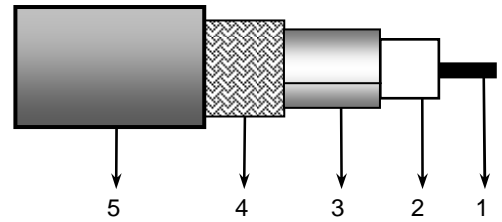


## H155A02

**Wireless coax**  
**50 Ohm transmission cable**  
**Coax H155A02 AL FRNC/LSNH**



### Applications

- 50 Ohm low loss coaxial transmission cable designed according European Standard EN 50117-1
- Operating frequencies between 5 and 6000 MHz

### General Standards

- European standard EN 50117-1 and EN 50117-2-4
- European standard EN 50290-2-20

### Construction & Dimensions

<b>1. Inner conductor</b>	
Material	stranded bare copper 19x0.28 mm
Diameter	1.41 mm ± 0.03 mm
<b>2. Dielectric</b>	
Material	Gas injected PE
Diameter	3.9 mm ± 0.15 mm
Centricity	≥ 85%
<b>3. Foil</b>	
Material	AL-PET-AL
Overlap	≥ 2 mm
<b>4. Braid</b>	
Material	tinned copper
Diameter	4.5 mm ± 0.25 mm
Coverage braid	80% ± 5%
<b>5. Sheath</b>	
Material	FRNC/LSNH
Diameter	5.4 mm ± 0.2 mm

### Mechanical characteristics

Parameter	Specification	Unit
Tensile strength of sheath	≥ 9.0	N/mm <sup>2</sup>
Elongation at break of sheath	≥ 125	%
Adhesion dielectric @ 25mm	5-50	N
Crush resistance of cable (load of 700N)	< 1	%
Maximum tensile strength of cable	100	N
Minimum static bend radius	60	mm

## Electrical characteristics

Test methods in accordance with European standard EN 50117-1

Parameter	Specification	Unit
Mean characteristic impedance	50 ± 3	Ω
Regularity of Impedance	> 40	dB
DC loop resistance	≤ 32.4	Ω/km
DC resistance inner conductor	≤ 15.4	Ω/km
DC resistance outer conductor	≤ 17	Ω/km
Capacitance	84 ± 3	pF/m
Velocity ratio	80% ± 2%	
Insulation resistance	> 10 <sup>4</sup>	MΩ.km
Voltage test of dielectric	2	kVdc
Screening Attenuation		
	30-1000 MHz	≥ 85
Return loss at		
	5-30 MHz	≥ 20*
	30-470 MHz	≥ 20*
	470-1000 MHz	≥ 18*
	1000-2000 MHz	≥ 16*
	2000-3000 MHz	≥ 15*
	3000-6000 MHz	≥ 15**
	* Maximum 3 peaks 4 dB lower then specified.	
	** Values above 3000 MHz for information only.	

Attenuation at:	Nominal	Unit
5 MHz:	2.5	dB/100m
50 MHz:	6.9	dB/100m
100 MHz:	9.1	dB/100m
230 MHz:	13.4	dB/100m
400 MHz:	18.0	dB/100m
800 MHz:	26.1	dB/100m
862 MHz:	27.3	dB/100m
1000 MHz:	29.6	dB/100m
1350 MHz:	34.9	dB/100m
Maximum attenuation is 10% higher		

Attenuation at:	Nominal	Unit
1750 MHz:	40.3	dB/100m
2150 MHz:	46.0	dB/100m
2400 MHz:	49.1	dB/100m
3000 MHz:	56.3	dB/100m
3600 MHz:	62.9	dB/100m
4200 MHz:	69.1	dB/100m
4800 MHz:	75.1	dB/100m
5400 MHz:	80.8	dB/100m
6000 MHz:	86.5	dB/100m

## Environmental and overall characteristics

Parameter	Specification	Unit
Storage/operating temperature	-30 to +70	°C
Minimum installation temperature	-5	°C
Smoke density acc. to IEC 61034-1/2 & EN50268-1/2; transmittance	> 60	%
Amount of halogen acid gas acc. to IEC 60754-1/2 & EN50267-1/2; pH	> 4.3	
Amount of halogen acid gas acc. to IEC 60754-1/2 & EN50267-1/2;	< 10	µS/mm
Resistance to flame propagation according IEC 60332-1	Pass	

Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.

