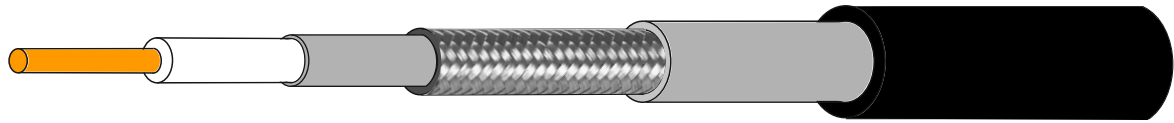


# CATALOG CARD

Model



## NS113TRI HQ GEL 100m



∅	1,13	4,80	4,90	5,50	5,60	6,80
	(Cu)	(FPE)	(Al/PET)	(Al+GEL)	(Al/PET)	(PE)

### APPLICABLE STANDARDS

1. PN-EN 50117-2-4: 2005+A1:2008. Coaxial cables - Part 2-4: Sectional specification for cables used in cabled distribution networks - Indoor drop cables for systems operating at 5 MHz - 3 000 MHz.
2. PN-EN 50117-1:2003+A1: 2007. Coaxial cables - Part 1: Generic specification.
3. Directive 2011/65/EU with annex II 2015/863 (RoHS 3)

### PRODUCT DESCRIPTION

High quality, triple-shielded coaxial cable with inner conductor made of copper wire. The conductor is covered with physically foamed nitrogen (N) polyethylene, which has particularly effective dielectric insulation. Shielding is made in accordance with the Trishield standard, which uses triple conductor protector. The first of them is a layer of AL/PET aluminium foil, second one is aluminium wire braiding with gel protected and the last one is another layer of AL/PET aluminium foil. The outer sheath is made of black polyethylene (PE), which protects against mechanical damage and external atmospheric conditions. NS113TRI HQ GEL cable has a high shielding efficiency, confirmed by class A/A+.

High quality and compliance with EU directives and construction requirements is satisfied by many installers who supervise installation in industrial and development facilities.

### IMPLEMENTATION

Coaxial cable enables transmission of digital and sinusoidal signals in the range 20 Hz- 15 GHz. It is used for creating lead connections in ICT installations. The NS113TRI HQ GEL cable is dedicated to external/terrestrial individual and multiswitch installations. It can be successfully used for receiving DVB-T (Digital Video Broadcasting - Terrestrial), FM/DAB radio and DVB-S/S2 satellite television. It is also implemented for industrial installations - CCTV.

### TECHNICAL DATA

Type: RG-6  
Inner conductor: copper (CU),  $\varnothing 1,13 \pm 0,02$  mm  
Dielectric: Polyethylene physically foamed with nitrogen (N),  $\varnothing 4,80 \pm 0,02$  mm  
First screening: Al/PET foil, thickness 0.04 mm  
Braiding: 144 wires x 0.12mm (thick braid, 98%) with **protected GEL**, AL wire  
Second screening: Al/PET foil, thickness 0.04 mm  
Outer diameter:  $\varnothing 6,8$  mm, **black polyethylene (PE)**  
Characteristic impedance:  $75 \pm 3$  Ohm  
Shielding class: A/A+  
Optical braiding coverage: > 98%  
Working temperature:  $-20$  C ÷  $+70$  C  
Laying temperature:  $0$  C ÷  $+70$  C  
Minimum bending radius [x cable diameter]: >8  
Purpose: outdoor and underground installations  
Compliance with standards: EN 50117 Klasa A/A+, 2011/65/EU;2015/863 (RoHS 3)  
Length: 100 m  
Brand: **CONOTECH**

**Novisat LLC**  
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**Date**  
2023-02-10

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# NS113TRI HQ GEL 100m

## ELECTRICAL DATA

Characteristic impedance (at frequency 200MHz)  
 Unit capacity (C)  
 Wave speed reduction factor (Vf)  
 Dielectric permittivity efficiency  
 Echo Attenuation  
 Cable Attenuation (at frequency 200MHz)

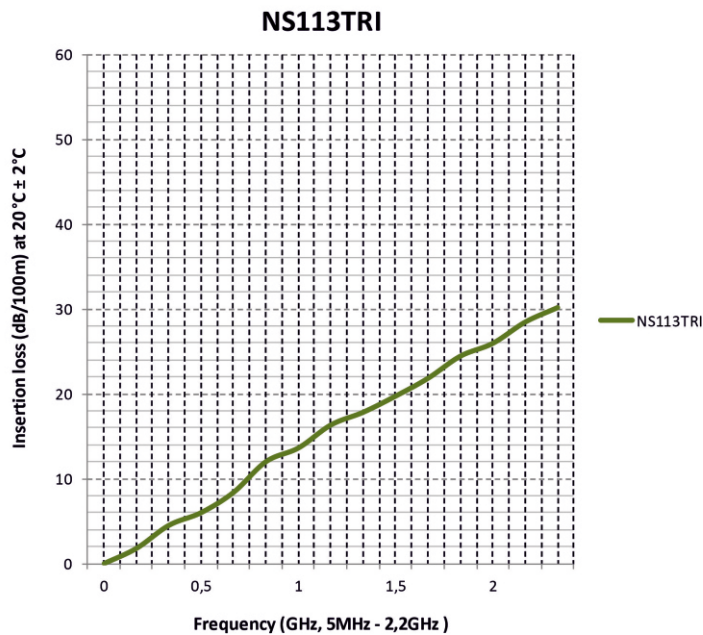
75,6 Ohm  
 50,3 ± 2 pF/m  
 88 ± 1%  
 ε = 1,29  
 48 dB ± 1dB  
 8,4 dB/100m

Screening efficiency factor 30-1000 [Mhz]  
 Screening efficiency factor 1500-2200 [Mhz]

≥ 85 dB  
 ≥ 75 dB

Table 1: NS113TRI cable attenuation in the frequency range 5-2200 MHz

Frequency [Mhz]	Measured value [db/100m]	Frequency [Mhz]	Measured value [db/100m]
5	1,8	800	17,8
50	4,5	1000	19,7
100	6,0	1200	21,8
200	8,4	1500	24,4
400	12,0	1800	25,9
500	13,6	2000	28,4
700	16,3	2200	30,1



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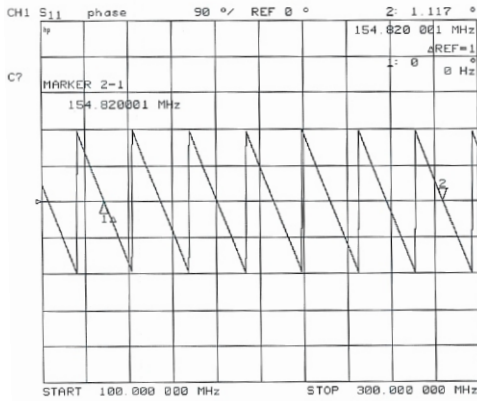
**Date**  
 2023-02-10

# CATALOG CARD

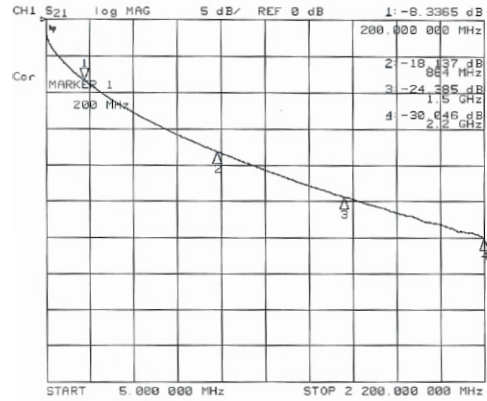
Model



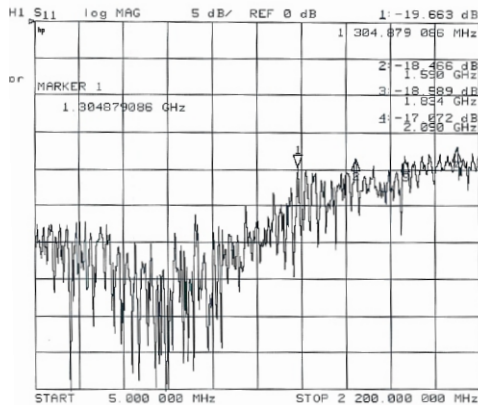
# NS113TRI HQ GEL 100m



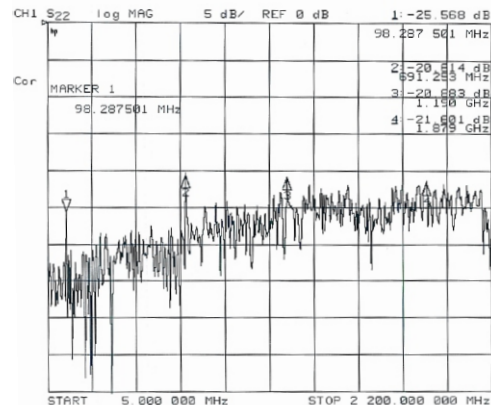
Graph 1: Waveform of the phase change as a function of frequency



Graph 2: Cable attenuation NS113TRI



Graph 3: Cable return loss NS113TRI - port 1



Graph 4: Cable return loss NS113TRI - port 2

## TEST EQUIPMENT

1. Absorption pins, MDS 21, Rohde & Schwartz, Ił 10-5-2
2. Network analyzer, HP 8753 C, Hewlett-Packard, Ił 47-2-325
3. Array parameter meter S, HP 85046 B, Hewlett-Packard, Ił 10-7-3
4. Coaxial cable tester Calibration kit, HP 85036 B, Hewlett-Packard, Ił 60-019
5. 1503 C, Tektronix, Ił 74-0-33
6. Spectrum analyzer, MS 2601 K, Anritsu, Ił 47-2-278
7. Signal generator, Hewlett-Packard Ił 800-301656
8. Automatic meter C, E 315 A, MERATRONIC, Ił 08-3-4;
9. Absorption pins, MDS 22, Rohde & Schwartz, Ił 1801-1054

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