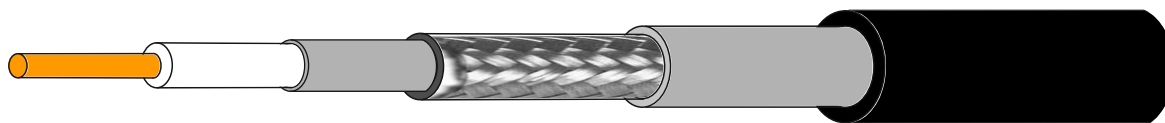


CATALOG CARD

Model



NS100TRI GEL 300m



∅	1,00	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

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. NS100TRI HQ GEL cable has a high shielding efficiency, confirmed by class 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 NS100TRI 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 1,00 ± 0,02 mm
Dielectric: Polyethylene physically foamed with nitrogen (N), \varnothing 4,80 ± 0,02 mm
First screening: Al/PET foil, thickness 0.04 mm
Braiding: 96 wires x 0.12mm (thick braid, 90%), with GEL , AL wire
Second screening: Al/PET foil, thickness 0.04 mm
Outer diameter PVC: \varnothing 6,8 mm, black PE
Characteristic impedance: 75 ± 3 Ohm
Shielding class: A
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, 2011/65/EU;2015/863 (RoHS 3)
Length: 300 m
Brand: **CONOTECH**

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Date
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CATALOG CARD

Model



NS100TRI GEL 300m

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)

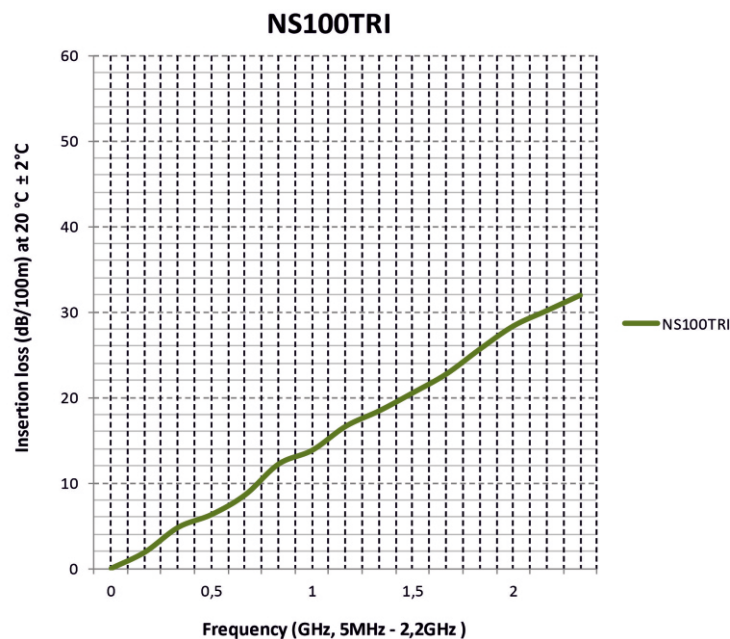
75,6 Ohm
51,7 ± 2 pF/m
88 ± 1%
ε = 1,29
48 dB ± 1dB
8,6 dB/100m

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

≥ 85 dB
≥ 75 dB

Table 1: NS100TRI cable attenuation in the frequency range 5-2200 MHz

Frequency [Mhz]	Measured value [db/100m]	Frequency [Mhz]	Measured value [db/100m]
5	1,9	800	18,4
50	4,8	1000	20,5
100	6,3	1200	22,7
200	8,6	1500	25,6
400	12,2	1800	28,3
500	13,8	2000	30,1
700	16,6	2200	31,9



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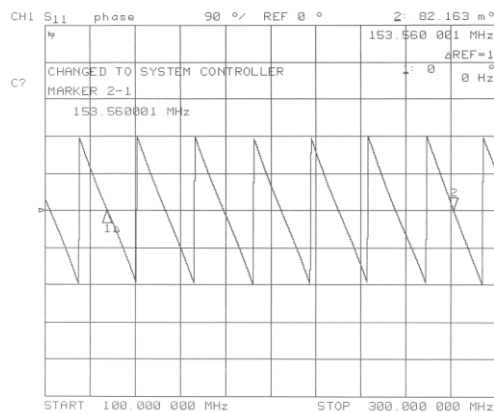
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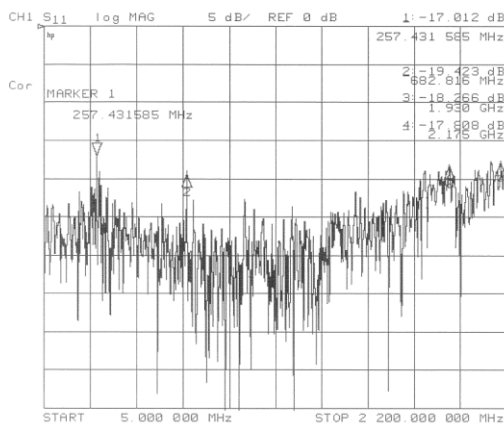
NS100TRI GEL 300m



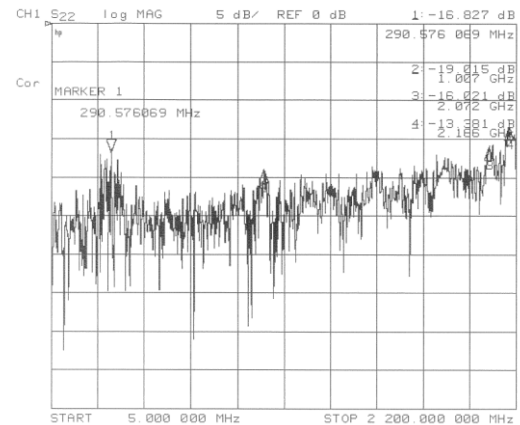
Graph 1: Waveform of the phase change as a function of frequency



Graph 2: Cable attenuation NS100TRI



Graph 3: Cable return loss NS100TRI - port 1



Graph 4: Cable return loss NS100TRI - 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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