Tri-Shield DIPOLNET RG-6 Cu
Detailed specifications

Tri-Shield DIPOLNET RG-6 Cu E1220

The high quality 75 ohm coaxial cable is dedicated for individual and shared TV/SAT antenna systems. The cable is suitable for distributing terrestrial DVB-T, DAB, FM broadcasts and satellite DVB-S/S2 channels, also in multiswitch systems (SMATV).

The triple-shielded coaxial cable of RG6 category has the inner conductor made of copper wire with a diameter of 1.02 mm, which ensures low loss and durability. The copper wire core does not corrode and the cable is not stiff.

Thanks to high quality and excellent parameters, the Tri-Shield DIPOLNET E1220 cable enjoys great popularity among many installers. An optimum flexibility of the jacket allows for easy installation of the cable in cable ducts and installation boxes.

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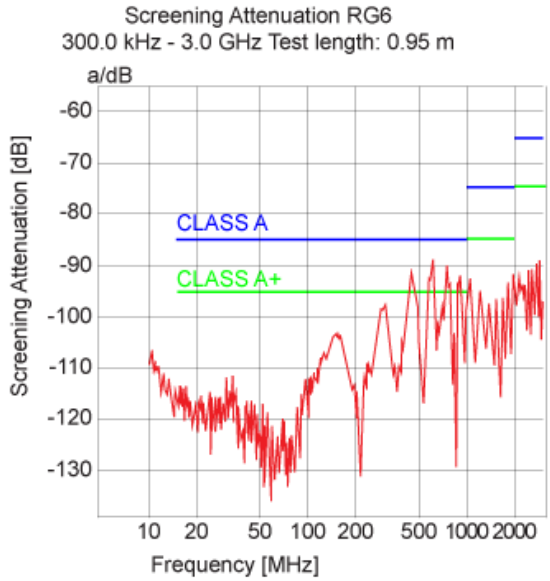
Detailed parameters

A. Screening efficiency (Screening Attenuation) [dB] – is one of the most important parameters describing the properties of signal transmission cables. To classify a cable, the measured values are compared with requirements contained in the relevant standard. Screening efficiency shows how many times the signal coming out from the inside of the cable (penetrating the shielding layers and measured outside them) is attenuated compared to the transmitted signal, or vice versa (the attenuation ratio of an outer electromagnetic field).

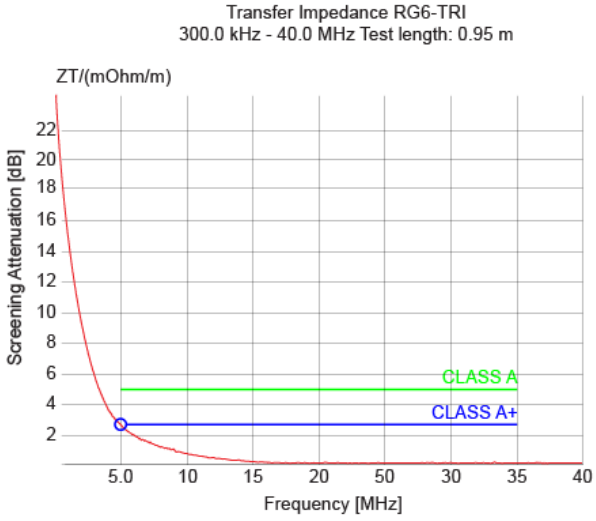


Min. requirements for Class A:
30 MHz - 1000 MHz ≥ 85 dB
1 GHz - 2 GHz ≥ 75 dB
2 GHz - 3 GHz ≥ 65 dB

Screening efficiency of Tri-Shield DIPOLNET RG-6 Cu cables in the 10-2400 MHz range and the requirements for class A

According to EN50117 standard, there are C, B, A, A+, A++ classes described by the minimum screening attenuation in the sub-ranges of the 30-3000 MHz frequency range.

B. Transfer Impedance [mΩ/m] – is the measure of signal penetration in the 5-30 MHz range (the lower the better).



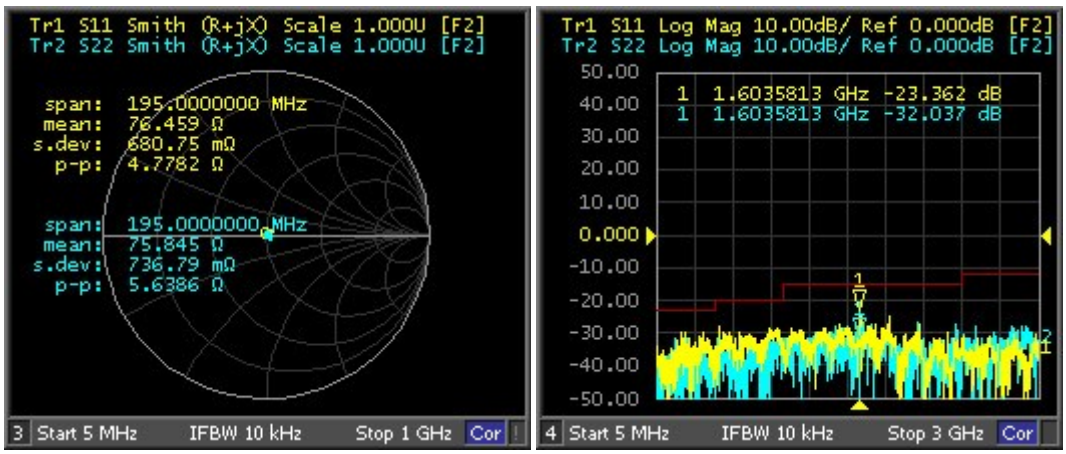
Requirements for class A:
Max: TI < 5 mOhm/m]

Transfer impedance of Tri-Shield DIPOLNET RG-6 Cu cable in the 5-30 MHz range and the requirements for class A

C. Insertion Loss (IL) [dB/100m] – determines the quality of the cable in terms of attenuation of the signal along the transmission line, like in any transmission medium. The values of the attenuation of a coaxial cable (IL) are usually given for 100 meters, . Higher quality coaxial cables are characterized by lower attenuation, which translates into higher signal levels at the inputs of the receivers.

Insertion loss of Tri-Shield DIPOLNET RG-6 Cu cable
as a function of frequency (5-3000 MHz)

D. Return Loss (RL) [dB] – is the ratio of the input signal level to the amount of the signal that is reflected back towards the transmitter. The reflection of the signal is caused by variations of impedance in the cable line.



Return loss of Tri-Shield DIPOLNET RG-6 Cu cable
in 5-3000 MHz range and Smith chart showing its wave impedance

These measurements were carried out with the use of Agilent Technologies ENAE5062A network analyzer (US), serial number E5062A-ATO-25397 and CoMeT (Coupling Measuring Tube) from Bedea Rosenberger (Germany).

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E. Tri-Shield DIPOLNET RG-6 Cu features 77% braid coverage, which is one of the foundations of the high shielding effectiveness (high Screening Attenuation and low Transfer Impedance, see the items A. and B.).

Braid			
Material	Aluminum		
Wire diameter	mm	0.12	± 0.004
Number of wires	pcs.	16 x 8	
Winding angle	deg.	26.69	
Coverage	%	77	min

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