

EXPERT REPORT

Ordered by: **GEOVITAL**
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Device under Test: **GEOVITAL NOVA – Shielding fabric**

Subject: Measuring the shielding efficiency against electromagnetic waves from 100 MHz to 20 GHz

Regulations: IEEE 299-1997 and ASTM D-4935-89
(ASTM = American Society of Testing and Materials)

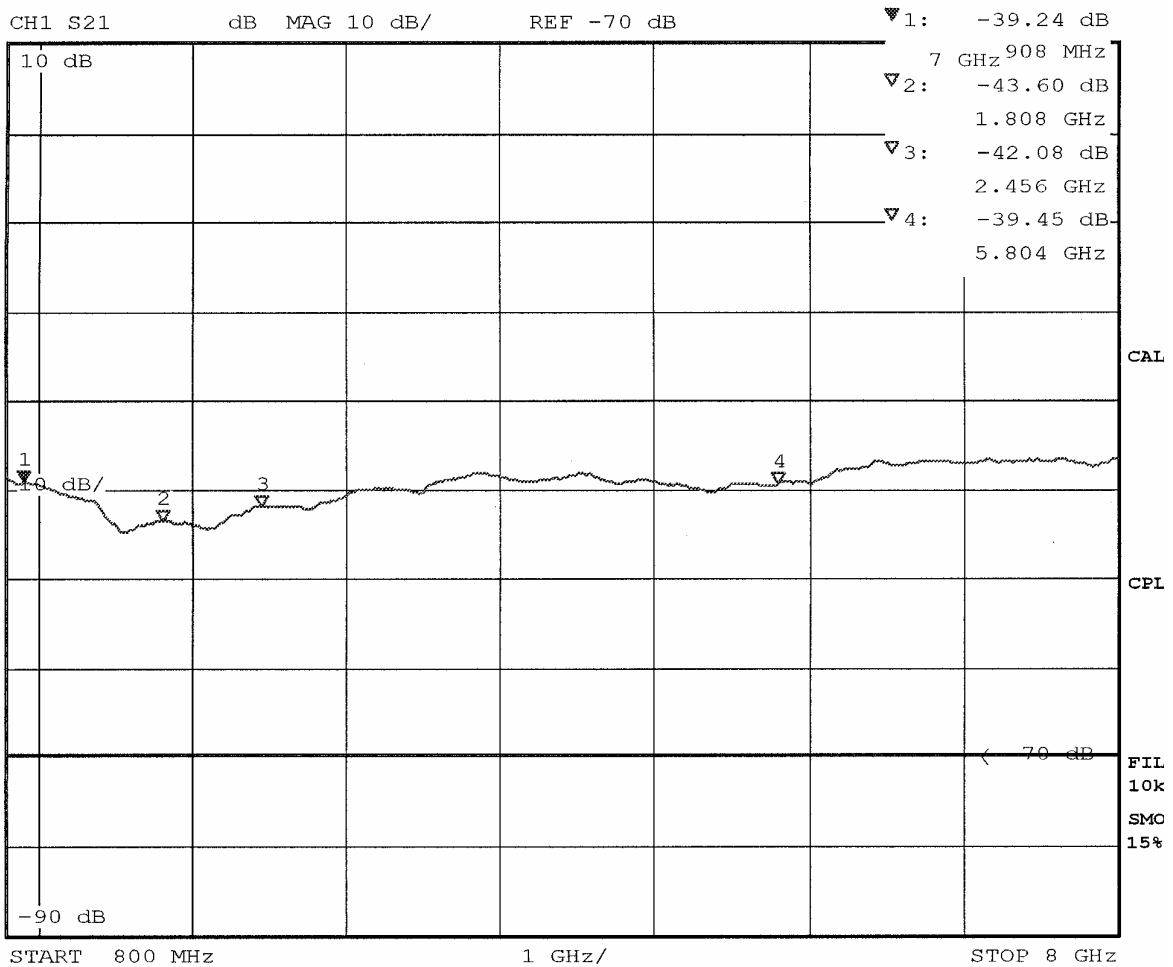
Date of Measurements: 18th of March 2010

Results: The shielding fabric **GEOVITAL NOVA** has been tested according to the ASTM with electro-magnetic waves showing polarizations in all directions. As the meshes of the fabric are shaped like squares in equal density, the results of the shielding are valid as well for vertically as also for horizontally polarized waves. This fact was confirmed by the results, presented in appendix 1. Table 1 presents the values of shielding efficiency (SE), measured at some interesting frequencies:

Communication services:	Shielding efficiency in dB*)
D-Net, 900 MHz	39 dB
E-Net, 1800 MHz	43 dB
Blue-Tooth, WLAN 2450 MHz	42 dB
W-LAN new generation at 5,8 GHz	39 dB

Table 1: Shielding Efficiencies at different frequencies

*) Average values, calculated from the results of the IEEE- and ASTM-measurements



4. Final conclusions

The shielding fabric GEOVITAL NOVA presents a high shielding effectiveness of 40dB in the most interesting frequency ranges. 40dB shielding means a reduction of the transmitted power down to a factor of 1:10000. This promises very good shielding, assumed, the shielding fabric is mounted respectively attached correctly: This means: No wholes or slots in the fabric and an overlapping of 5cm between two adjacent layers of the fabric.