



The secret life of shielded boxes

Shielding and practical measurements

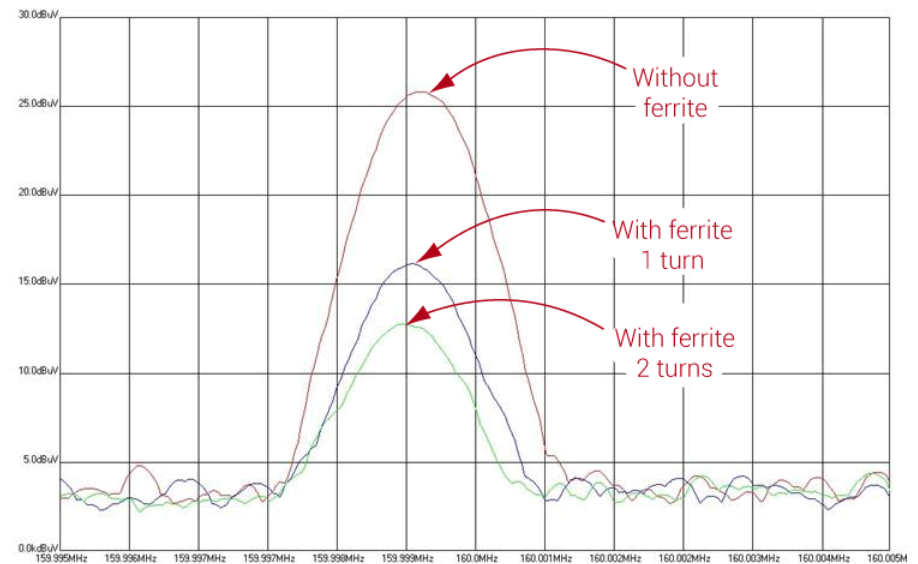
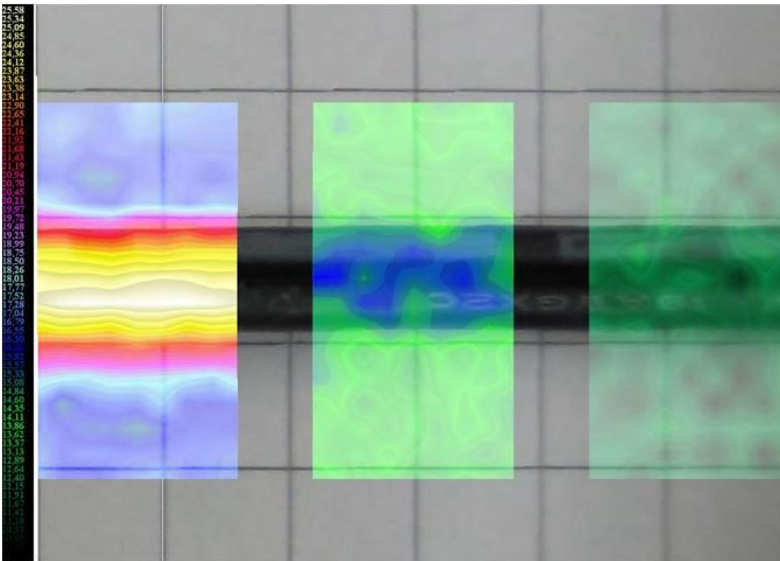
Jan Eriksson, Detectus AB
(on behalf of C.N. Rood)

de Nederlandse EMC-ESD Vereniging
EMC-ESD Event 2019

**NH Conference Centre Koningshof
Veldhoven**

woensdag 20 november

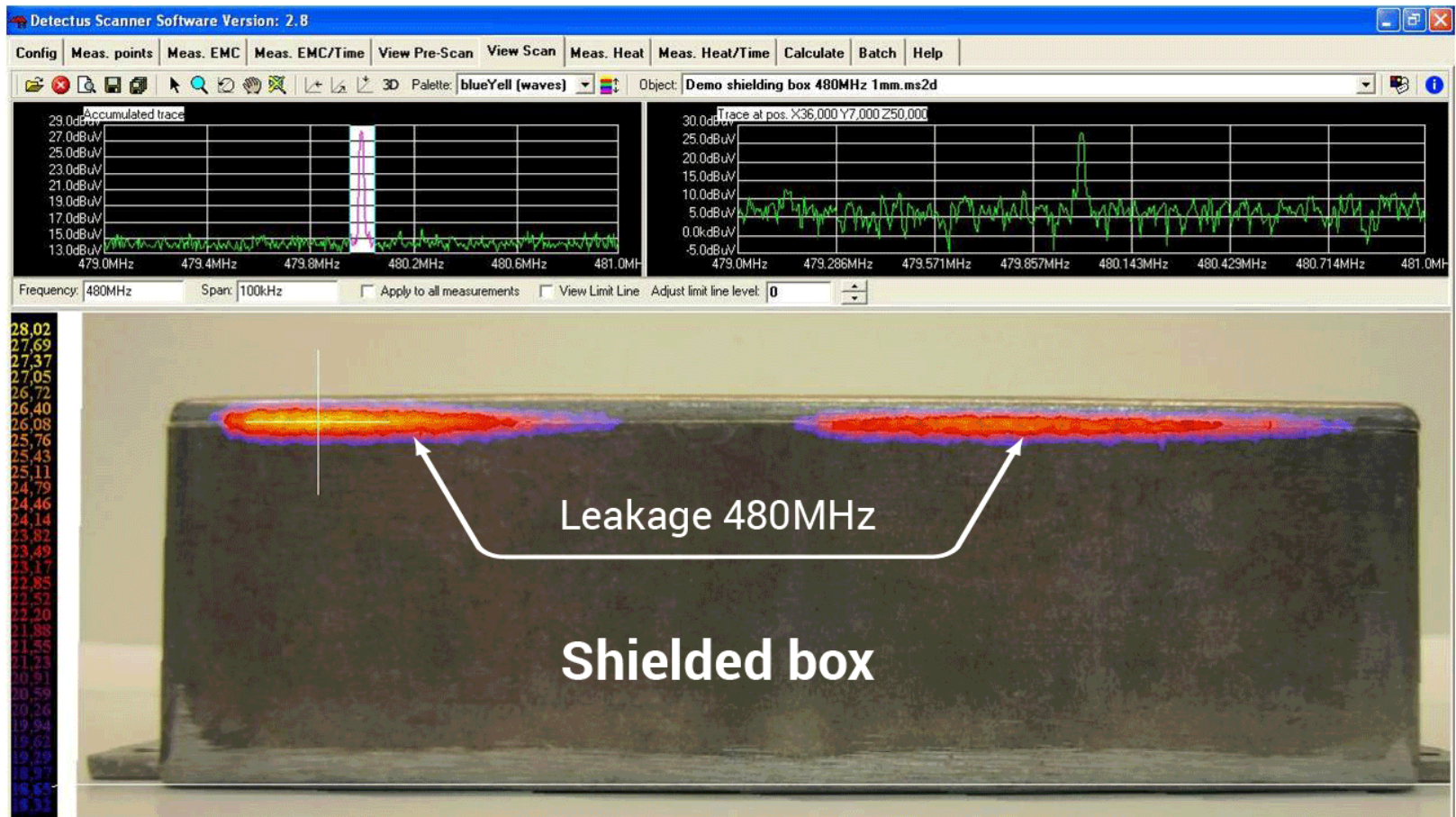
Power cable 160MHz with and without ferrite (Würth 74271221).



Cable, with and without ferrite



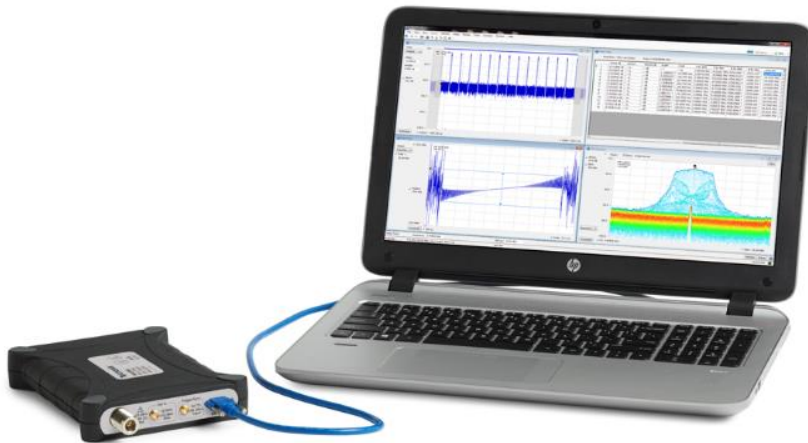
Measurement shielded box



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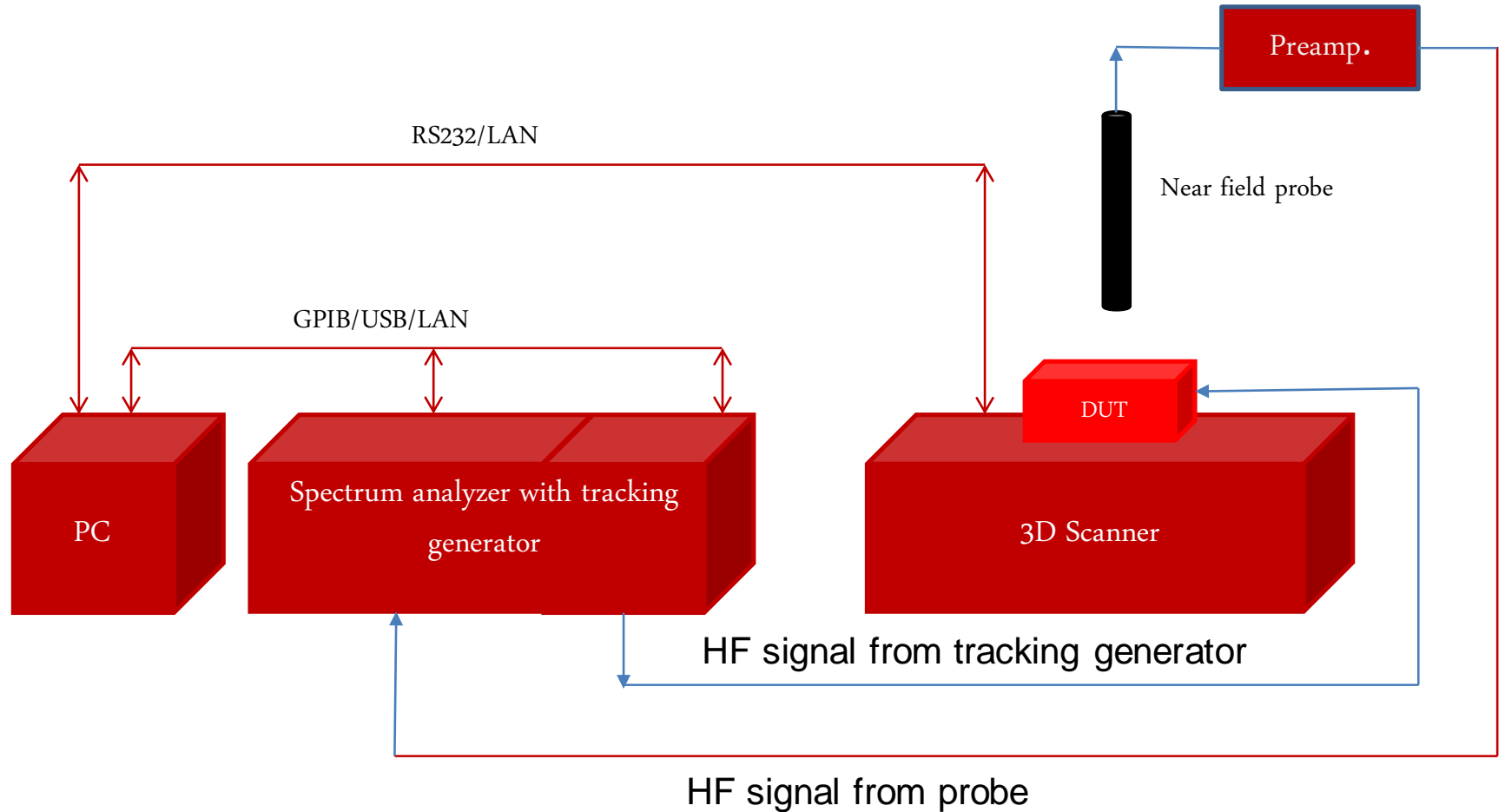
Equipment shielding measurements

- PC
- Robot
- Preamplifier
- Near field probe
- Spectrum analyzer with tracking generator

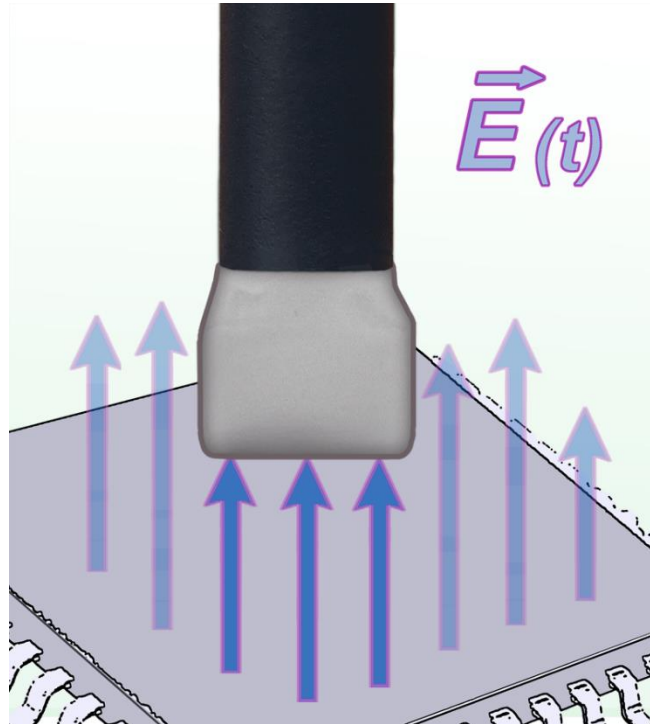


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Measurement configuration

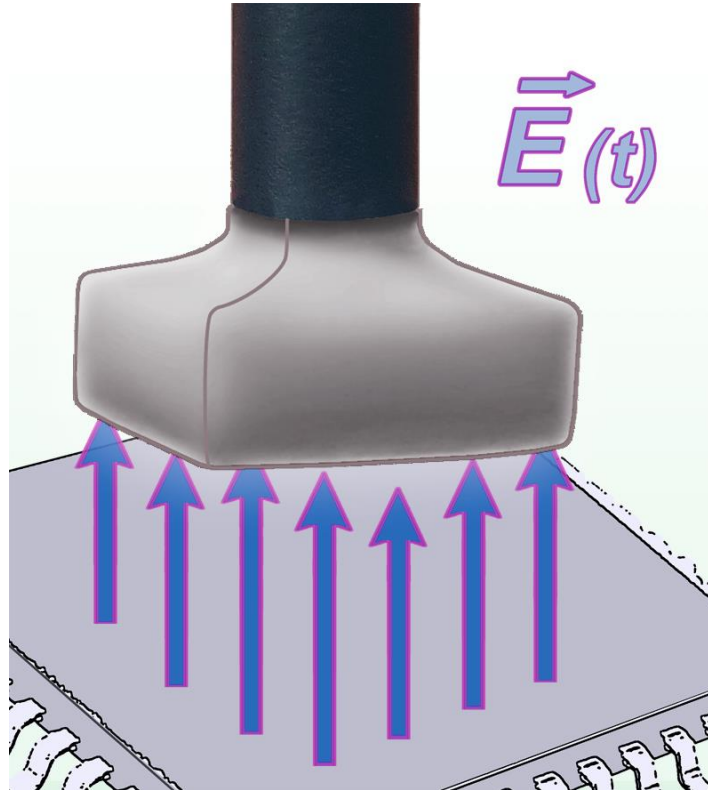


Transmitting probe XF-E 04s



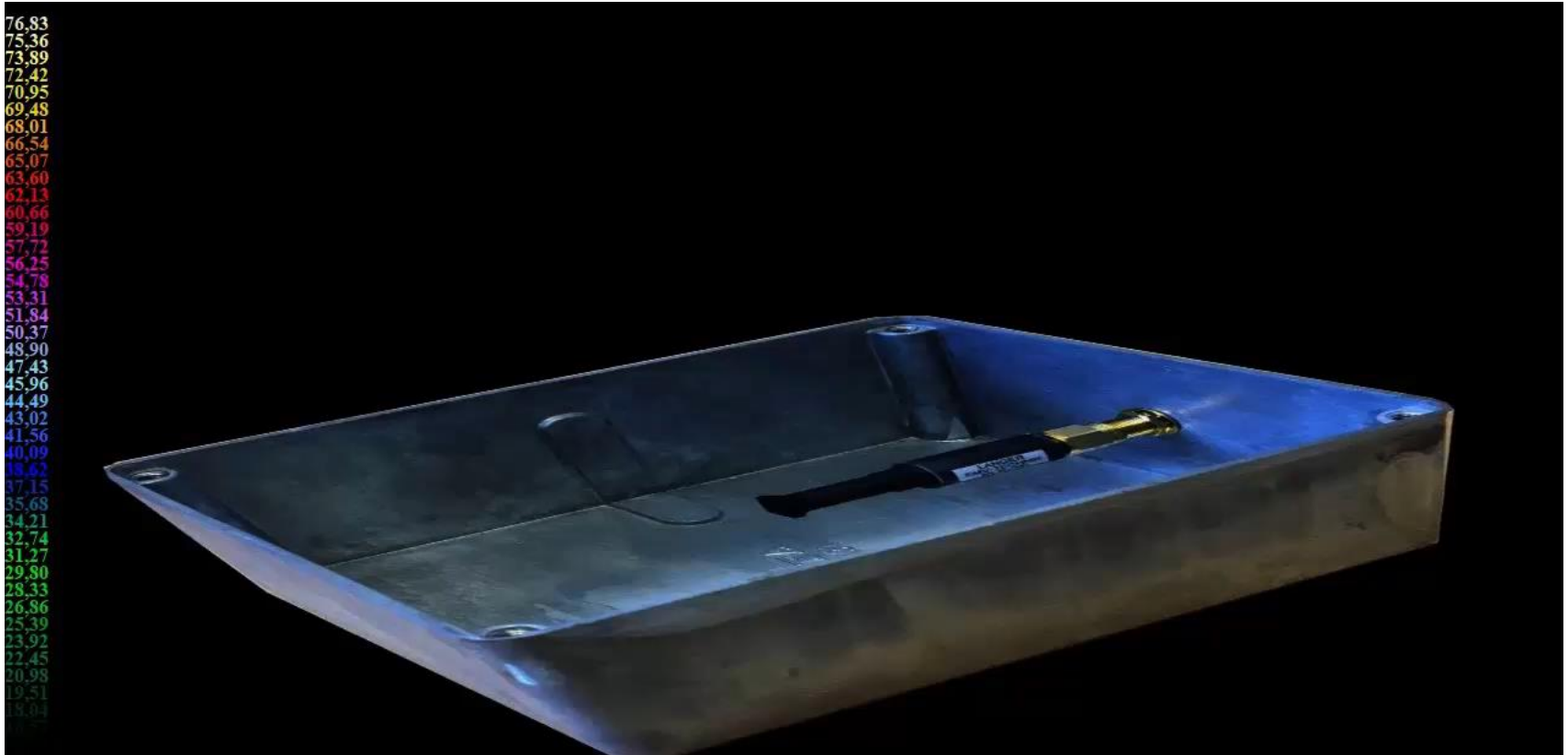
Probe area 5 x 5 mm

Receiving probe XF-E 09s



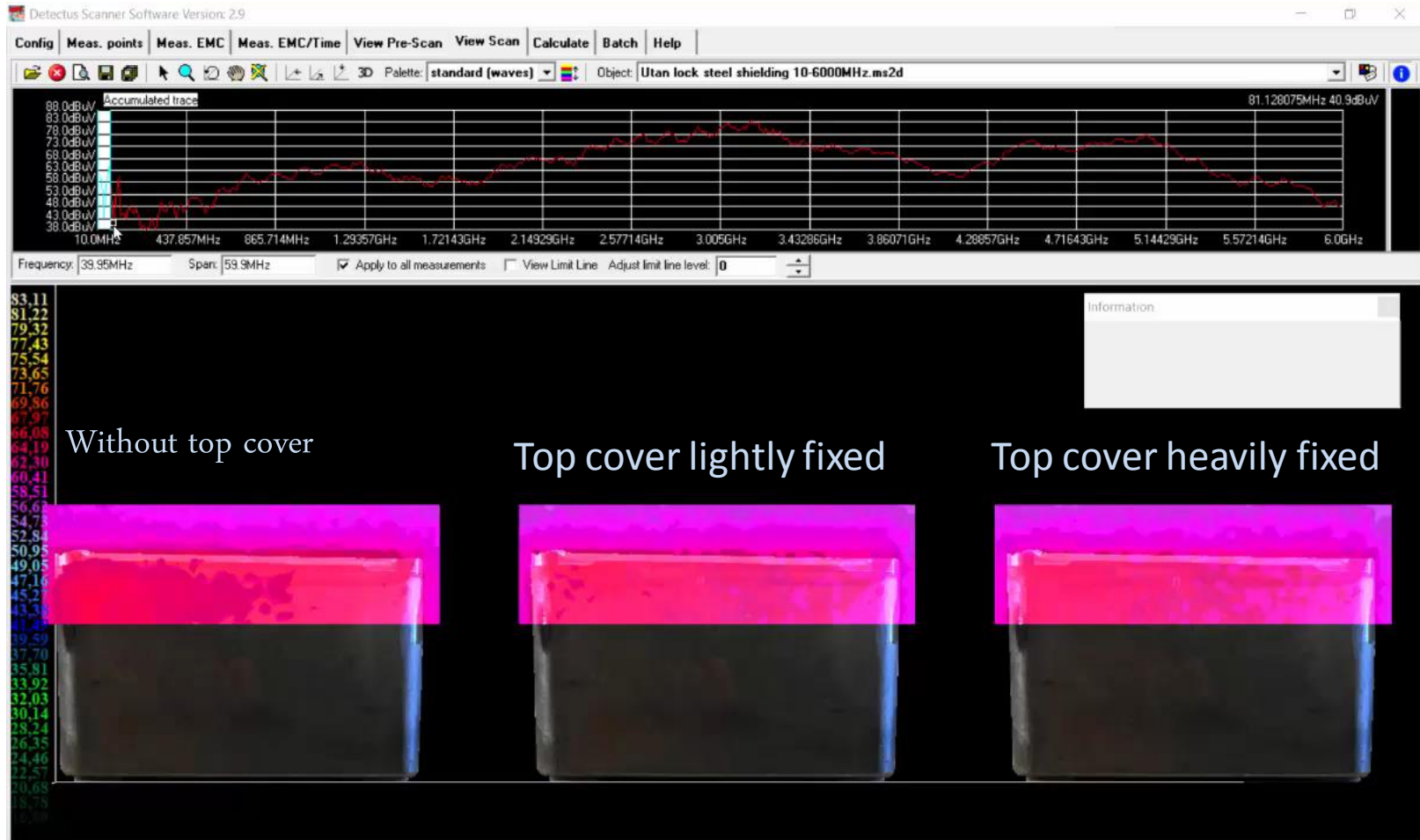
Probe area 10 x 10 mm

5GHz E-field propagation from box



Length of gap mm	Attenuation (dB)		
	10 MHZ	100 MHZ	300 MHZ
150	40	20	10
15	60	40	30
5	70	50	40
1,5	80	60	50

Test of shielding efficiency



Conclusion

Your EMC problem is not always solved if
you use a shielded box.

Thank you for your attention!



For more information or demo please visit our booth and/or Demo Square.

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