TEST REPORT

Laboratory tests and measurements

Technician
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DATE : 23/03/17

Test Instruments :

- VNA Copper Mountain Planar 804/1

Multiple bending test on cable Hyperflex 10

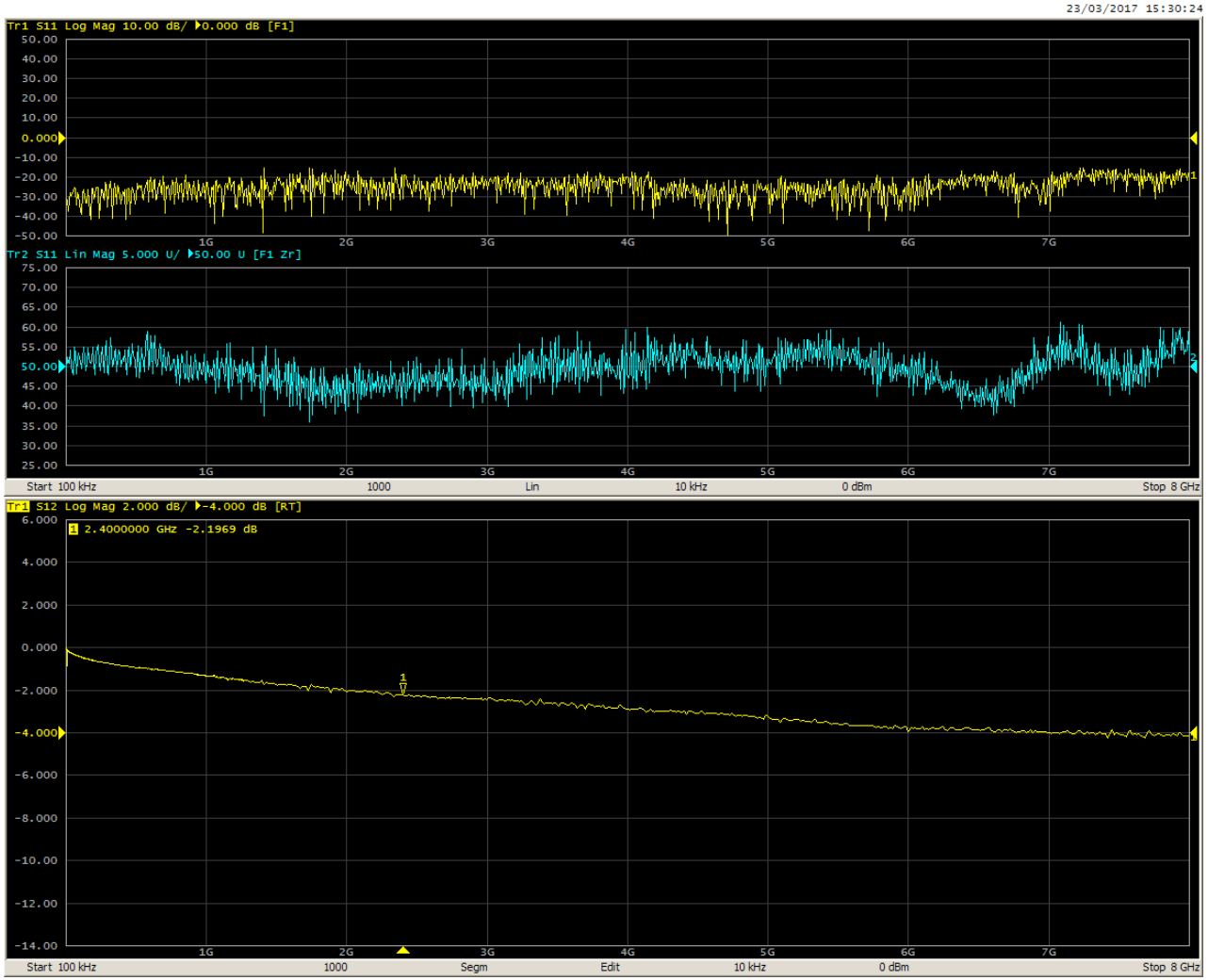
Test performed at the temperature of 20°C.

Warning

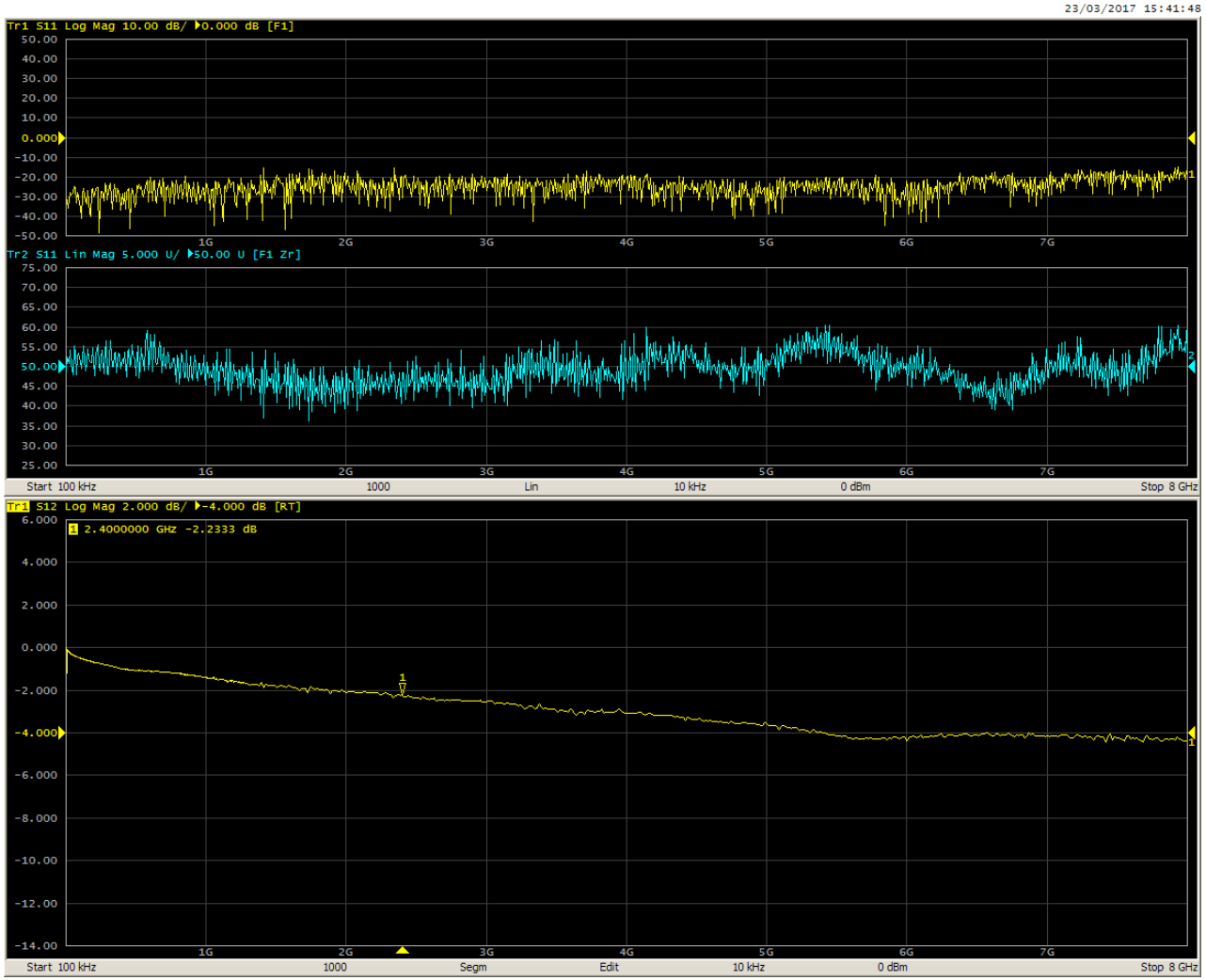
This test must be regarded as a test led to the limits of a reasonable use of the product.
When installing the cable for use with motorized antennas, it is strongly recommended to consider much wider bends in order to obtain a long lasting operative life, efficiency and performance.

A) Test performed on a **100 mm bending radius**, (9 Metres Cable Length).

Graph Before the bendings

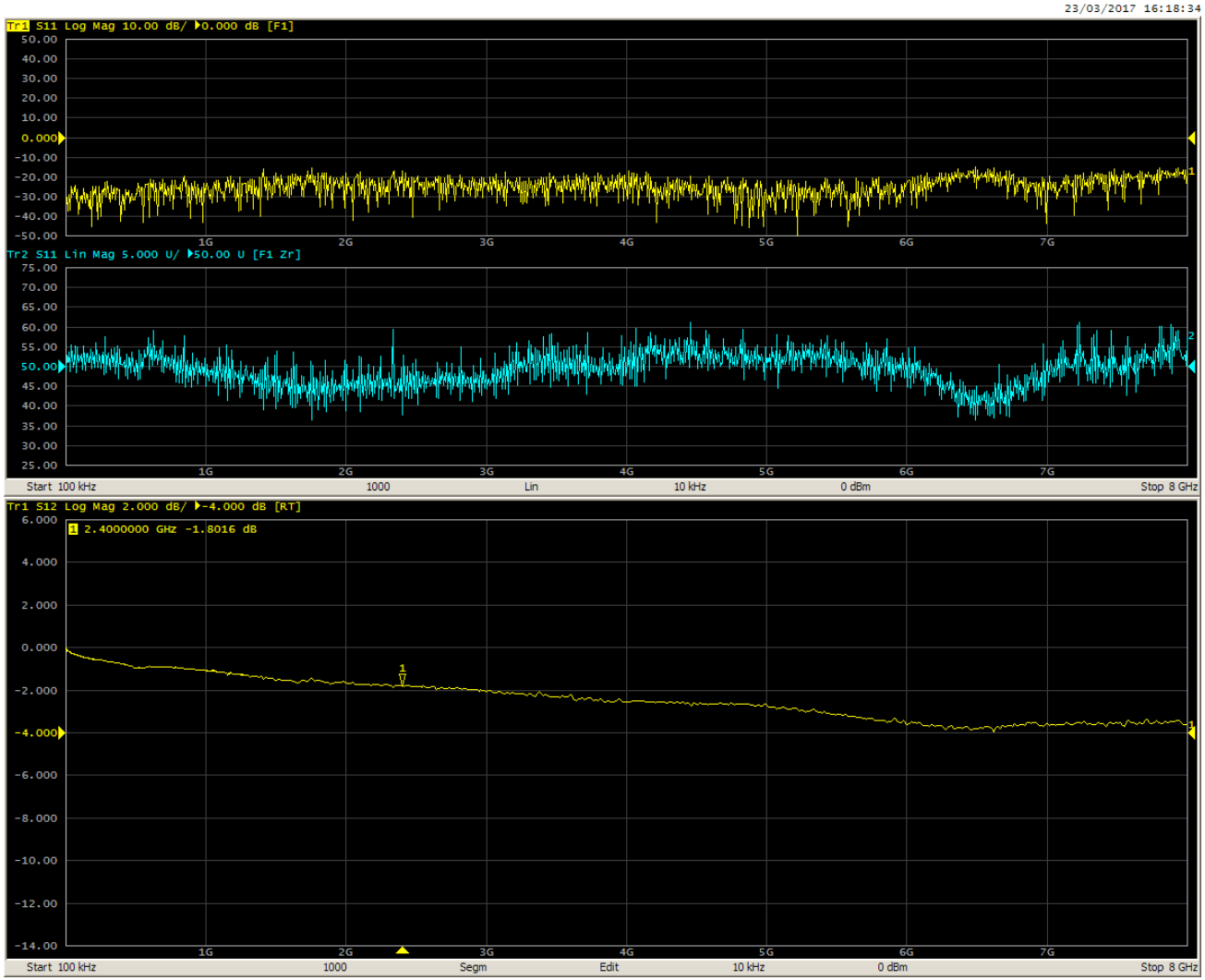


A) Graph showing behaviour of the cable after **100 bendings** on a 100mm bending radius

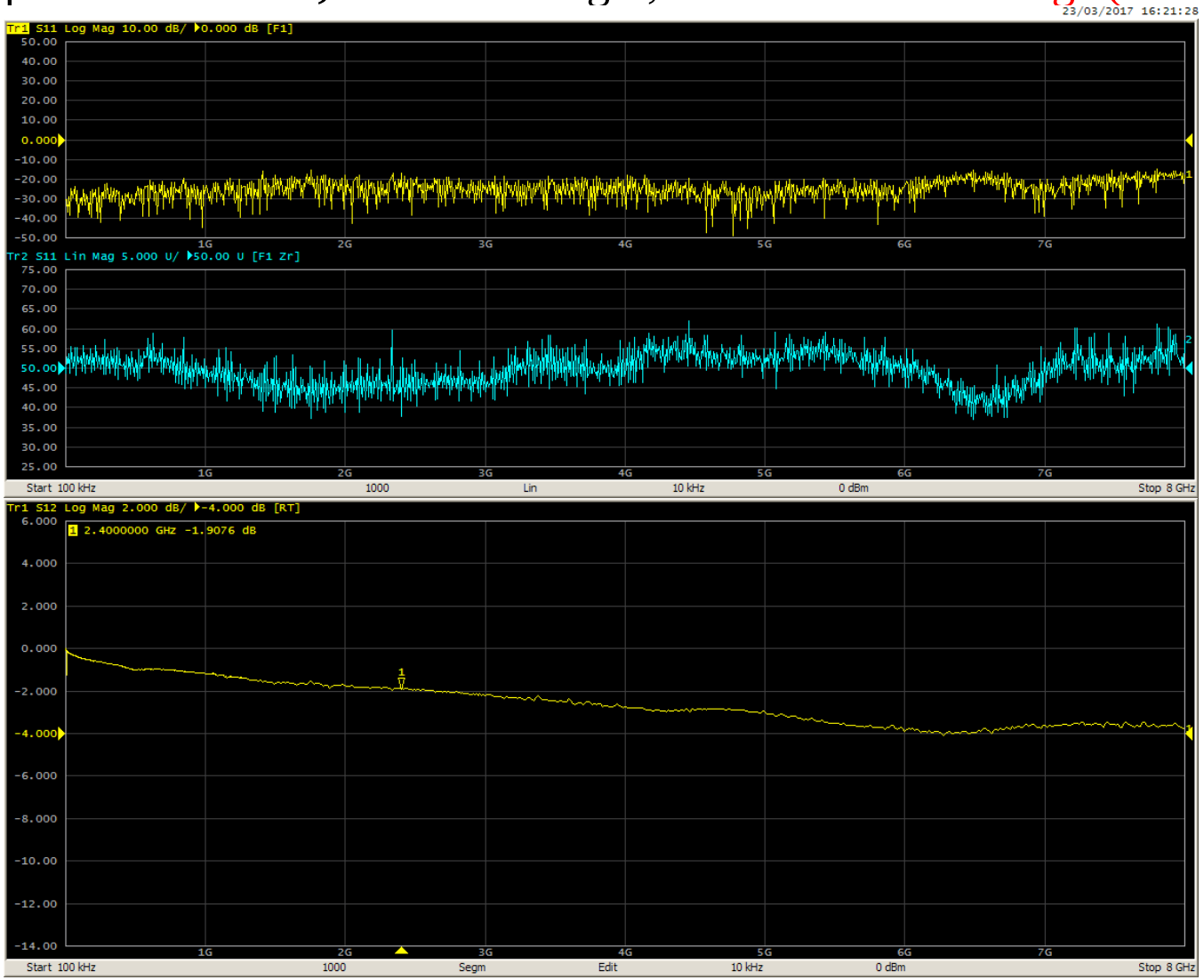


A) The impedance and Structural Return Loss (SRL) don’t show any significant variation, The attenuation doesn’t change as well.

B) Test on a **80 mm bending radius** : cable length **7,5 m** graph before the test

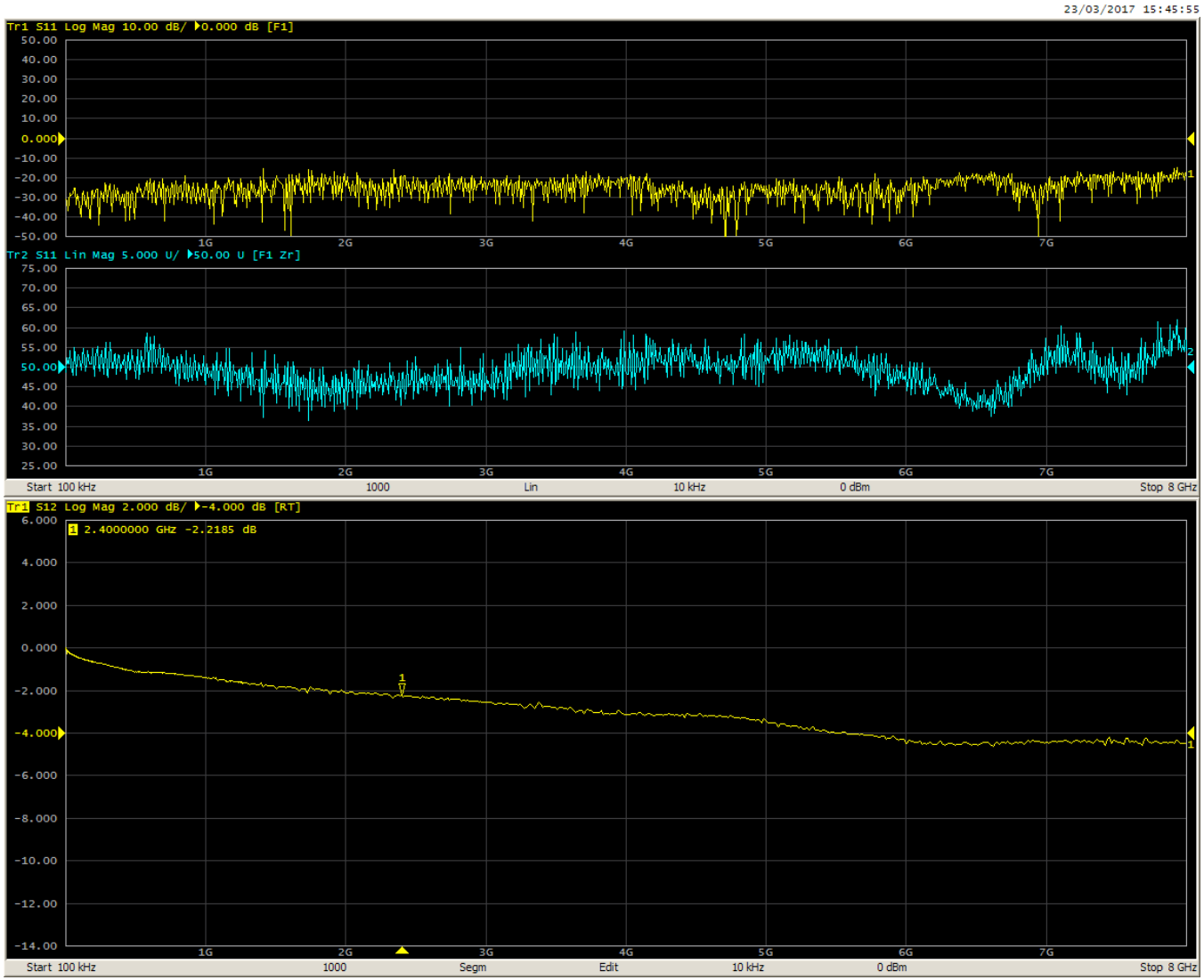


B) Graph of the same **7,5 m** cable length, Test after 30 bendings (80 mm)

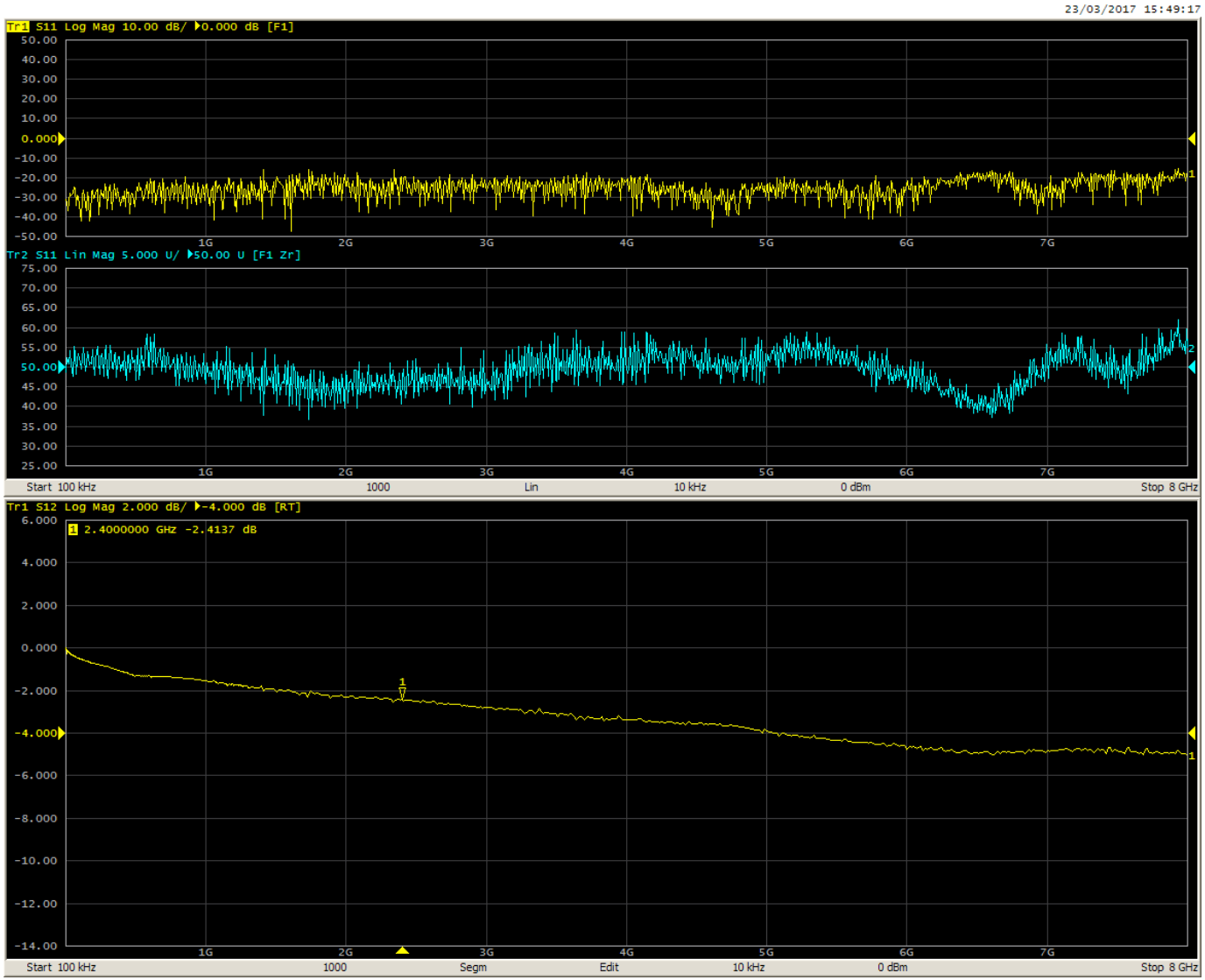


B) The attenuation at 2.4 GHz increases by 0.1 dB, although no variation on Impedance stability and SRL is noticeable. **The attenuation increases by 0,2 dB beyond the 80 bendings and is stable until 100 bendings**.

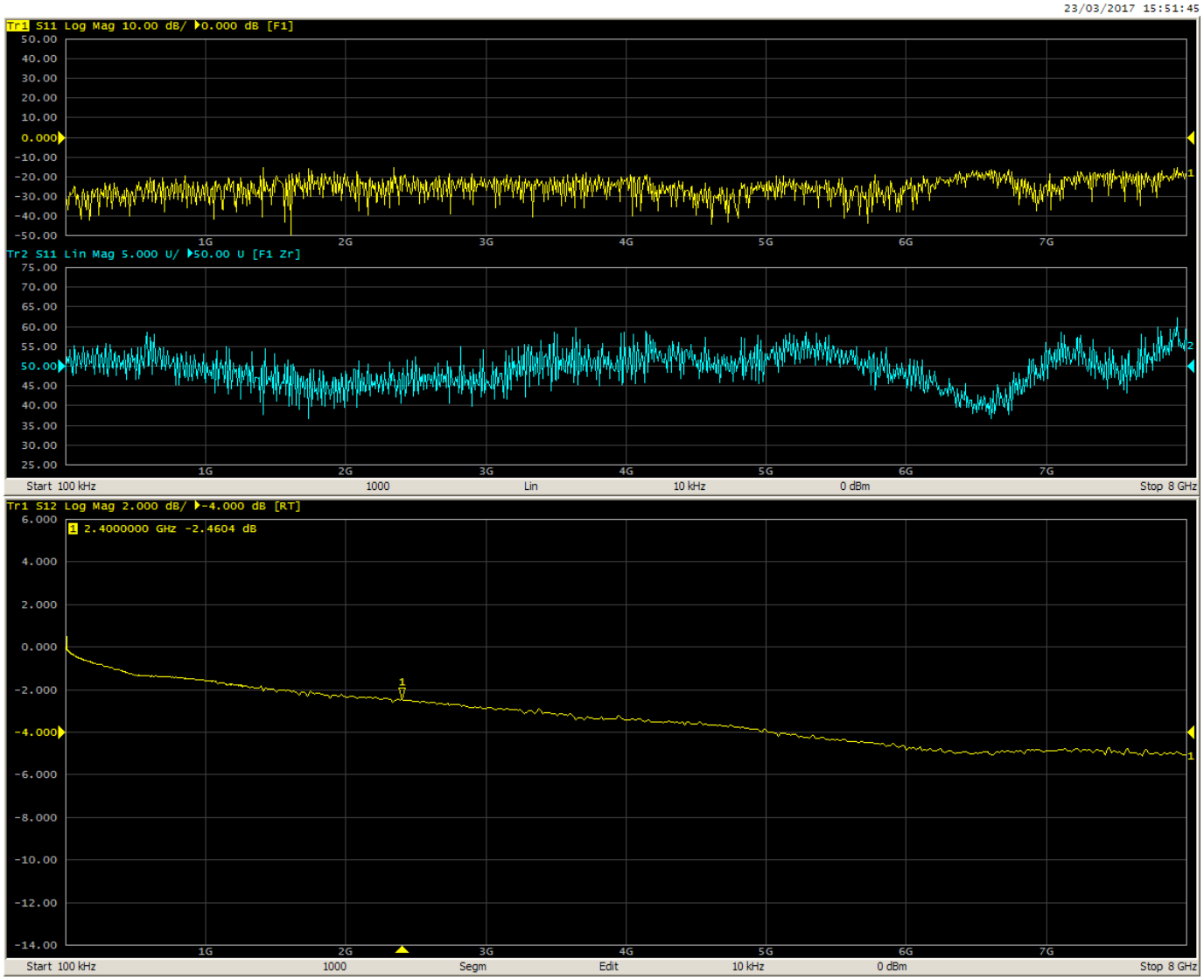
C) This test was performed on a **9 m. cable**, **with minimum bending radius of 40mm**. Before the test.



C) No variation: Graph after **30 bendings on a 40 mm bending Radius (9 m. long cable)**



C2) Graph **after 45** bendings (9 m. long cable)



At 2.4 GHz we have a higher loss of 0.2 dB while SRL and Impedance stability have no variation.
Same situation until 60 bendings.