

6.8 BLUETOOTH MEASURED DATA – Pursuant 47 CFR 2.1041

Bluetooth conducted measurement setup and procedure was provided in Exhibit 7.

6.8.1 Bluetooth Carrier Frequency Separation – Pursuant 47 CFR 15.247(a)(1)

The measurement shows a carrier frequency separation of 1.012 MHz, which is greater than the measured 20 dB bandwidth of 941.9 kHz.

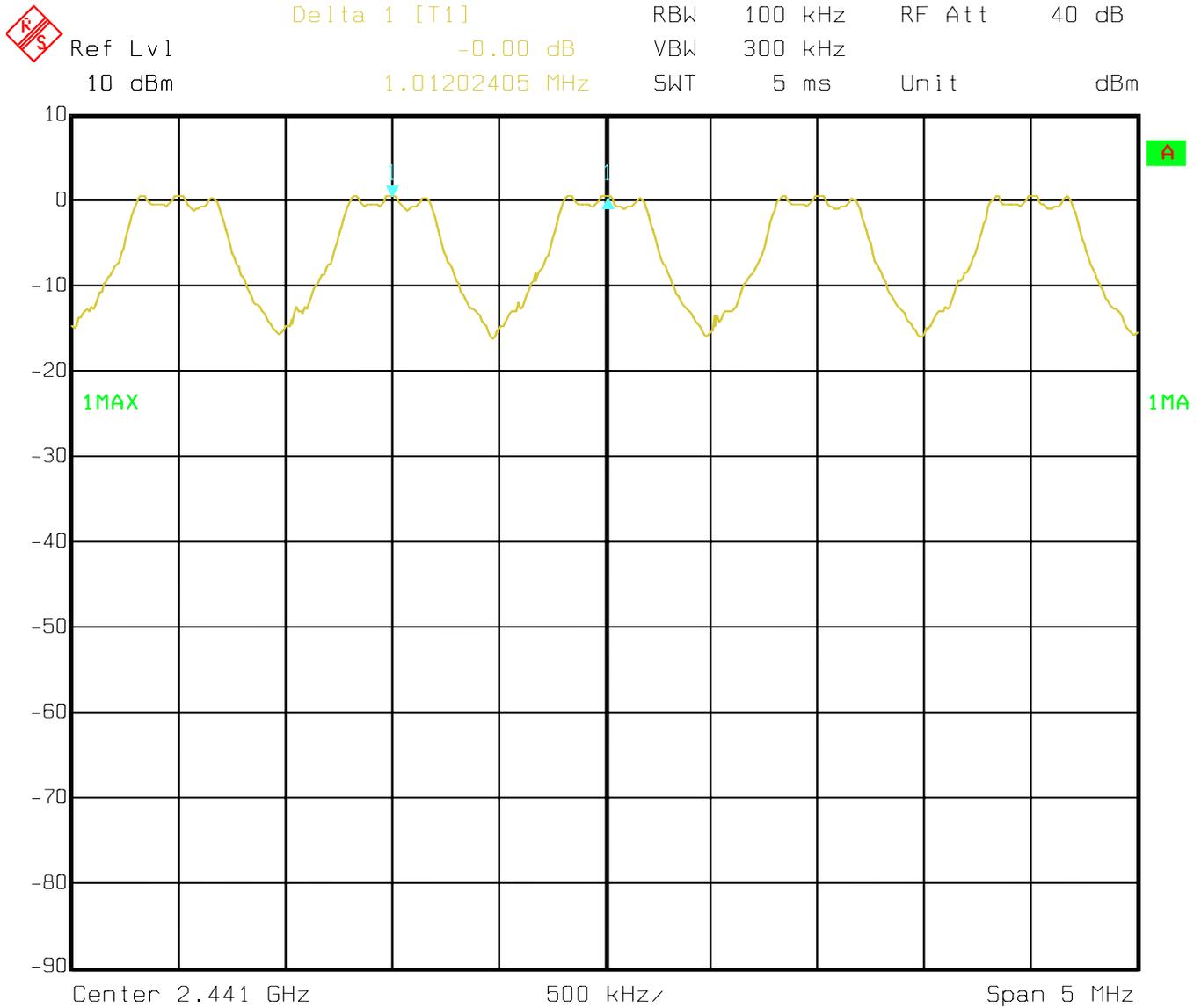


Figure 6-38: Plot of Bluetooth carrier frequency separation

6.8.2 Bluetooth number of hopping frequencies – Pursuant 47 CFR 15.247(a)(1)(iii)

The measurement shows 79 non-overlapping channels over a span of 79 MHz.

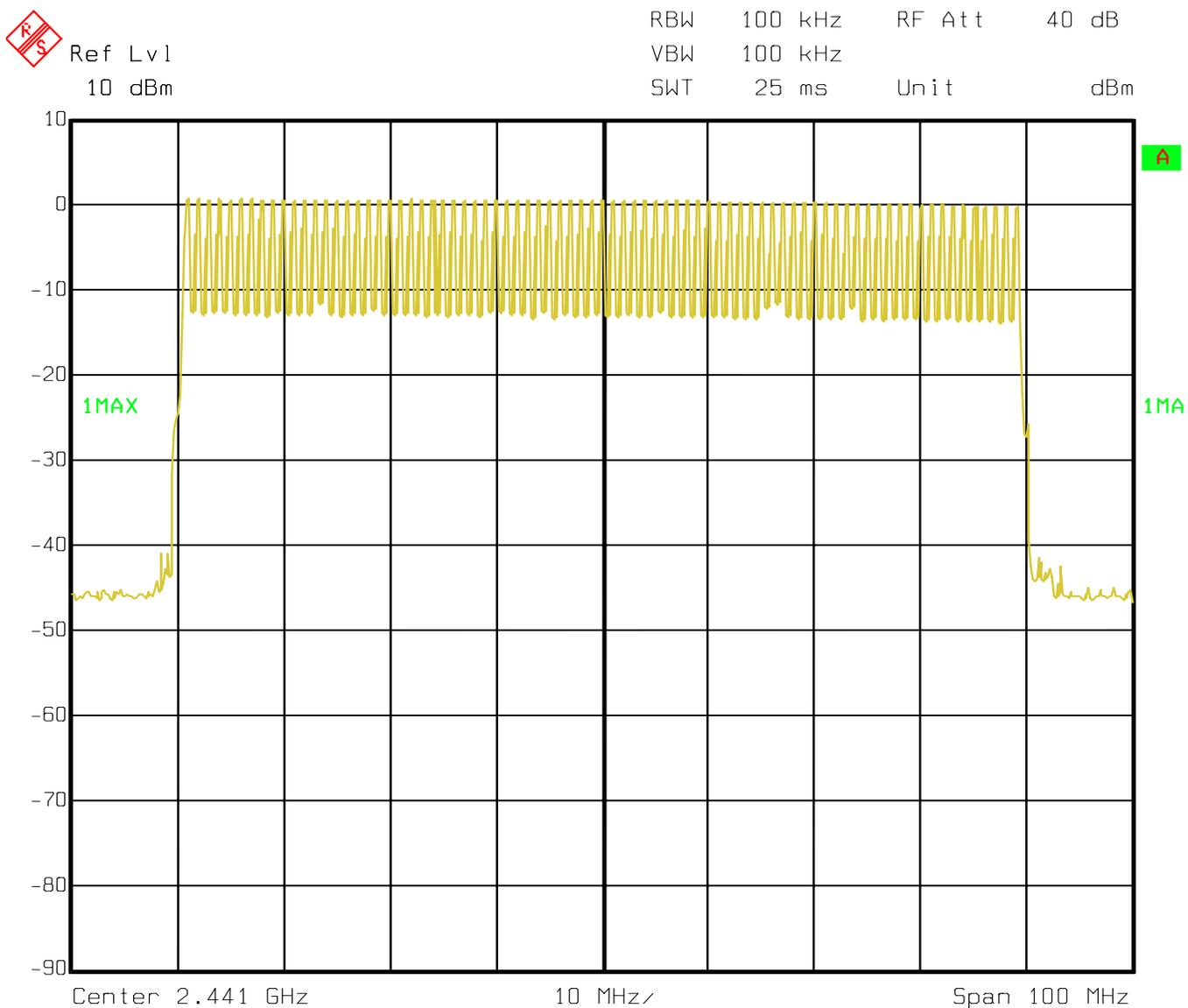


Figure 6-39: Plot of number of Bluetooth hopping frequencies

6.8.3 Time of Occupancy (Dwell Time) – Pursuant 47 CFR 15.247(a)(1)(iii)

The measurement shows the total dwell time in a 31.6 second period to be 138.036 ms.

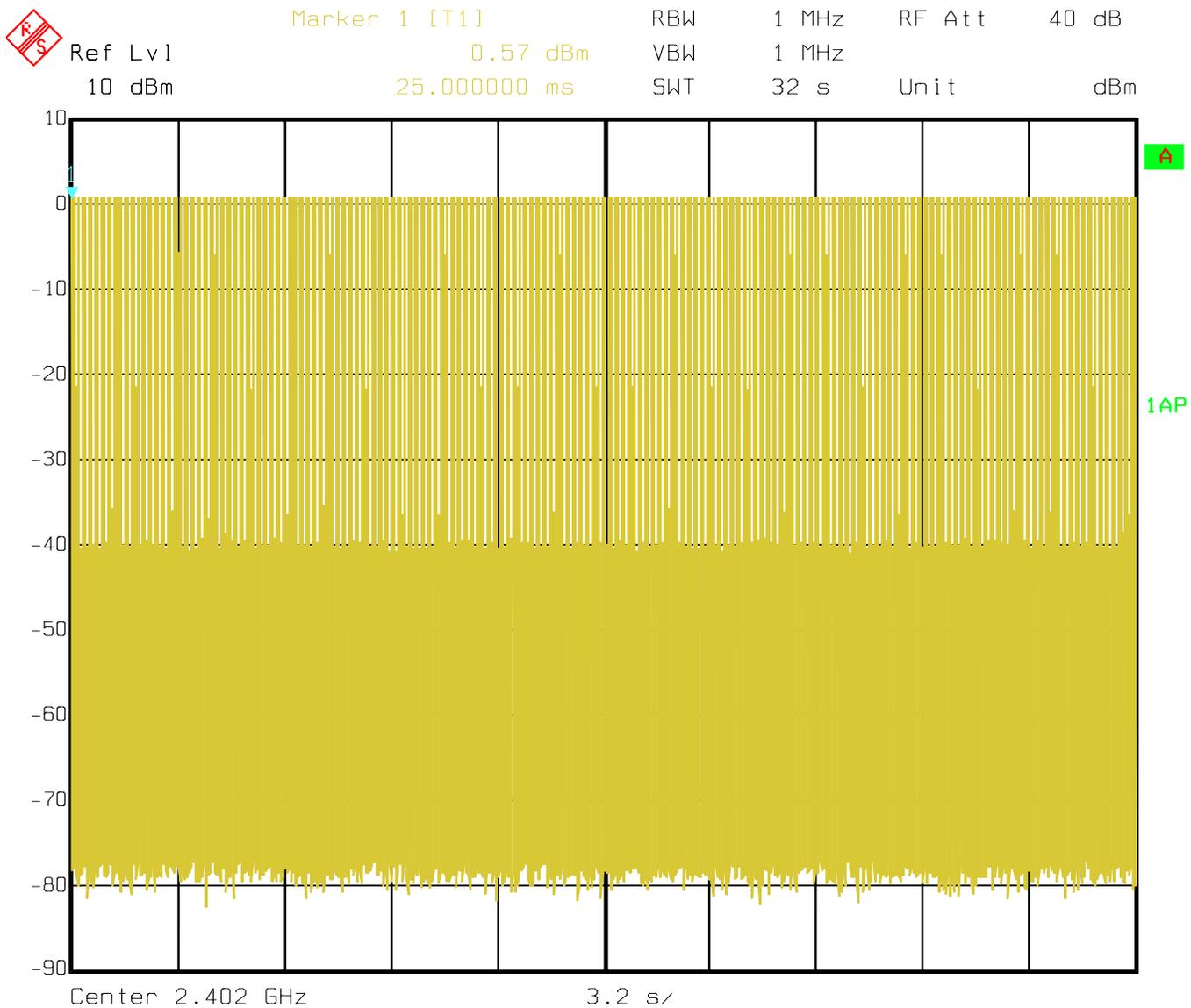


Figure 6-40: Plot of dwell time over 32 second period



Ref Lvl
10 dBm

RBW 1 MHz RF Att 40 dB
VBW 1 MHz
SWT 4 s Unit dBm

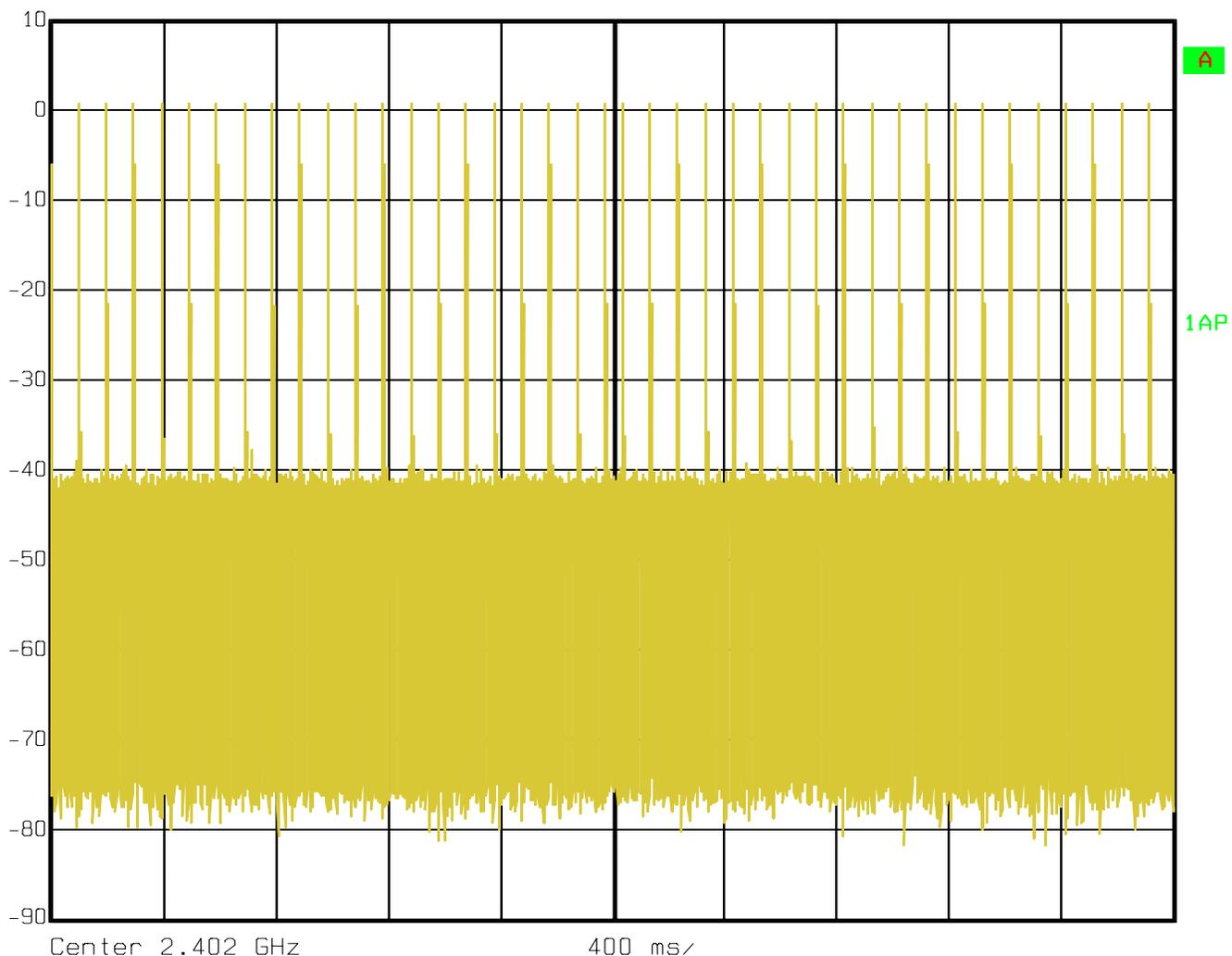


Figure 6-41: Plot of dwell time over 4 second period

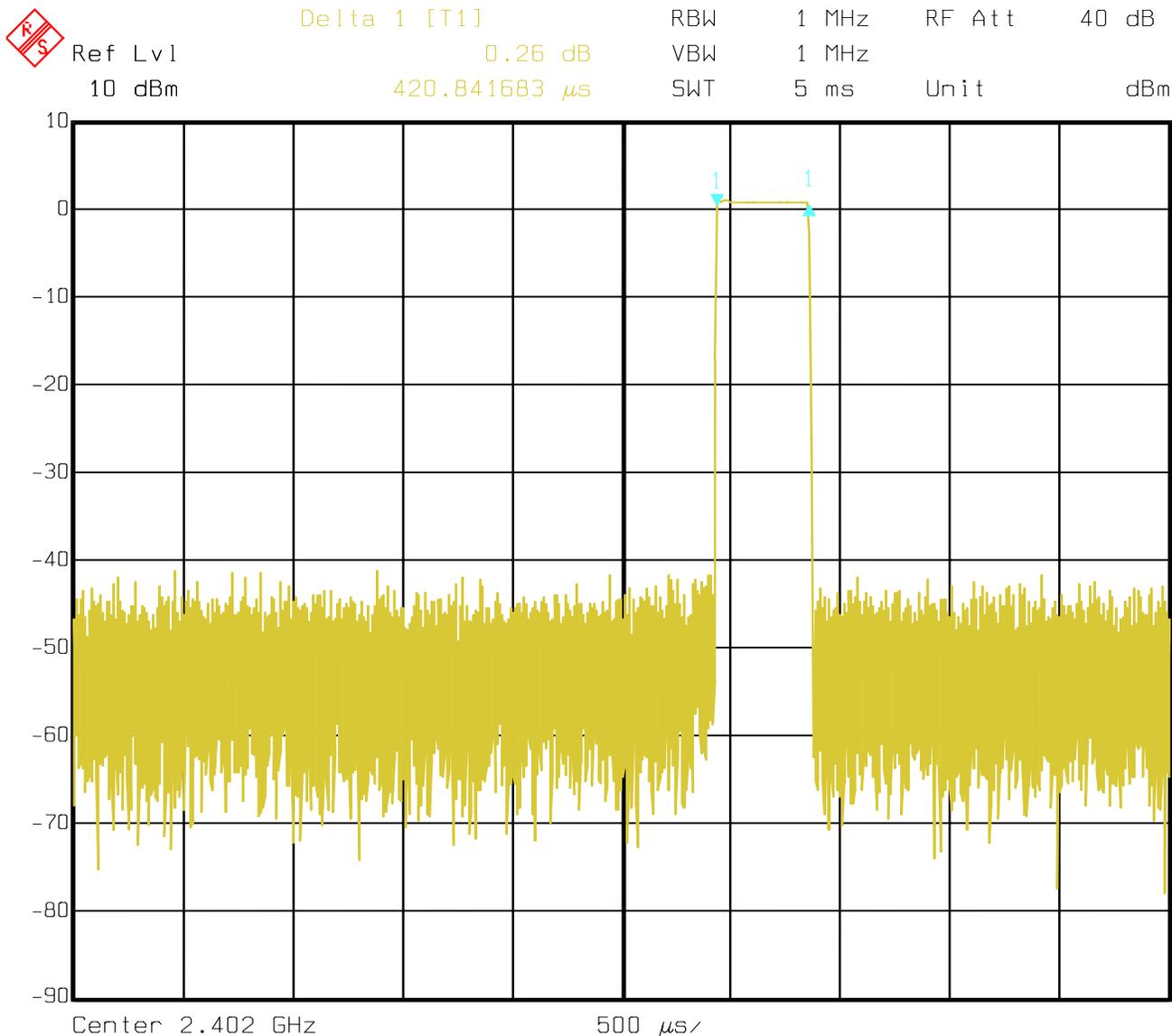


Figure 6-42: Plot of dwell time over 5 ms period

6.8.4 20 dB Bandwidth – Pursuant 47 CFR 15.247(a)(1)(ii)

The 20 dB bandwidth of the emission is 941.9 kHz.

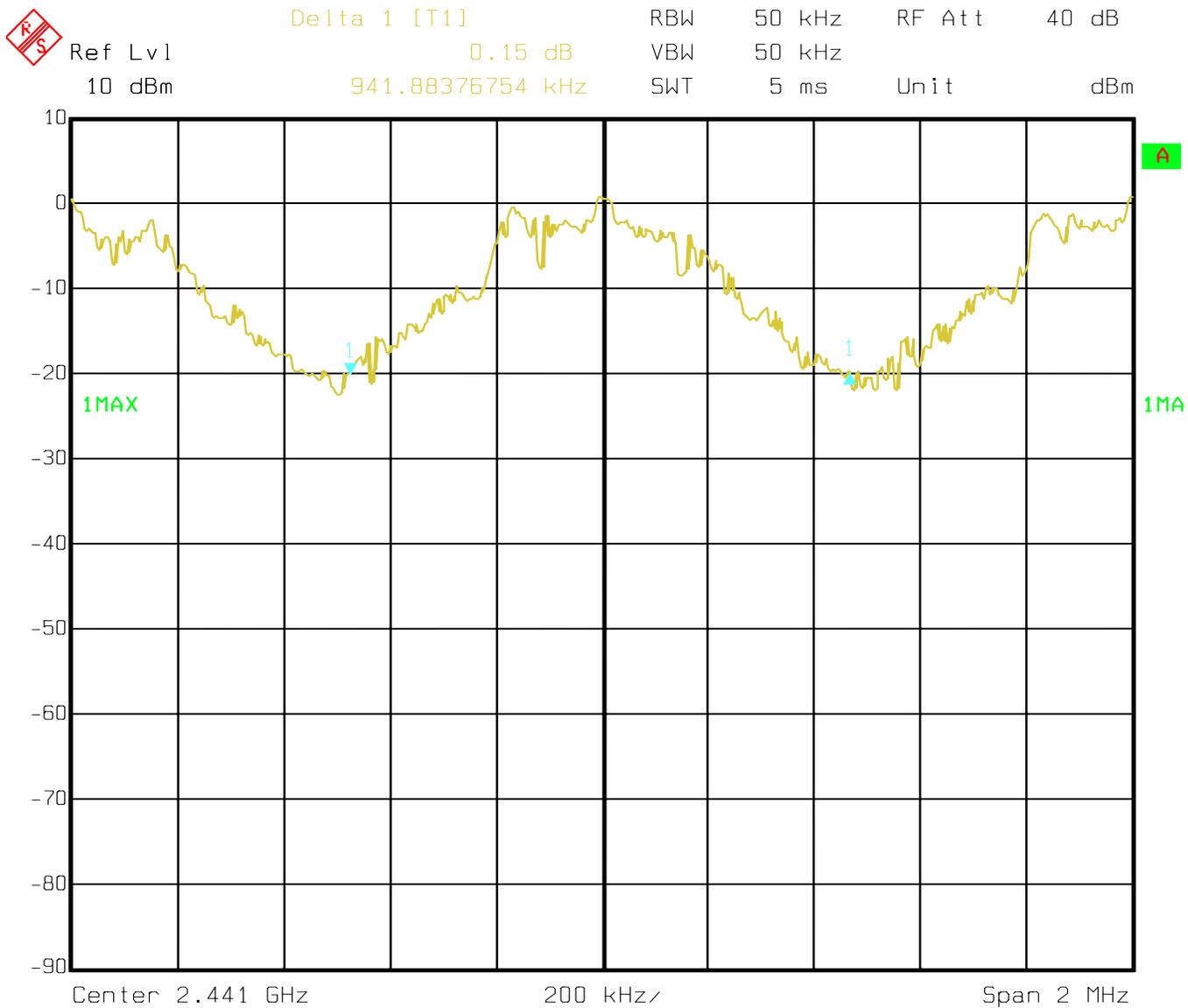


Figure 6-43: Plot of 20 – dB bandwidth

6.8.5 Peak Bluetooth Output Power – Pursuant 47 CFR 15.247(b)(1)

The peak output power is 0.40 dBm, which is equivalent to 1.10 mW.

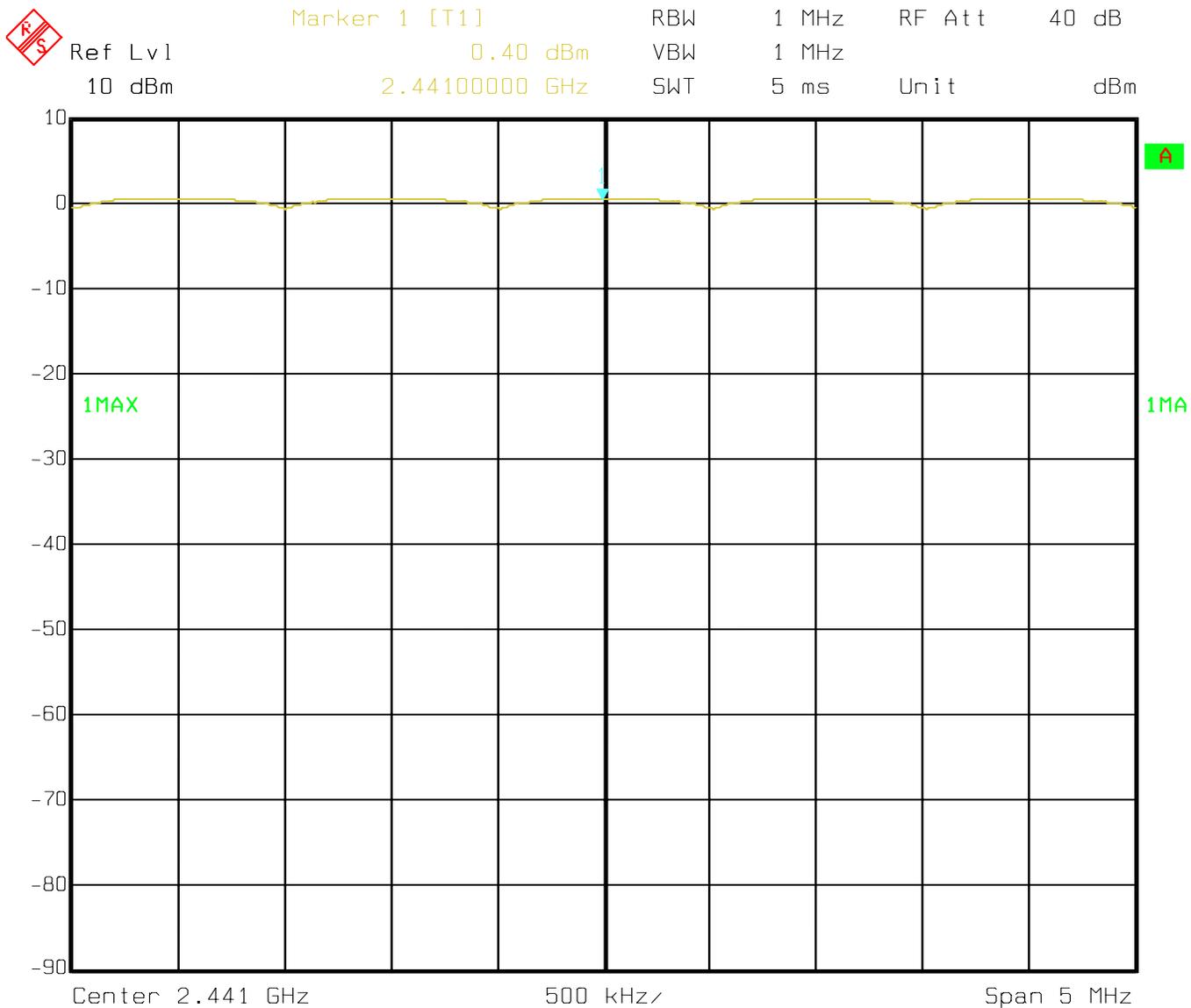


Figure 6-44: Plot of peak output power

6.8.6 Band-Edge Compliance of RF Conducted Emissions – Pursuant 47 CFR 15.247(c)

The measurement shows 41.72 dB at the lower band edge and 42.69 dB at the upper band edge with the hopping function disabled. The measurement shows 40.66 dB at the lower band edge and 44.41 dB at the upper band edge with the hopping function enabled.

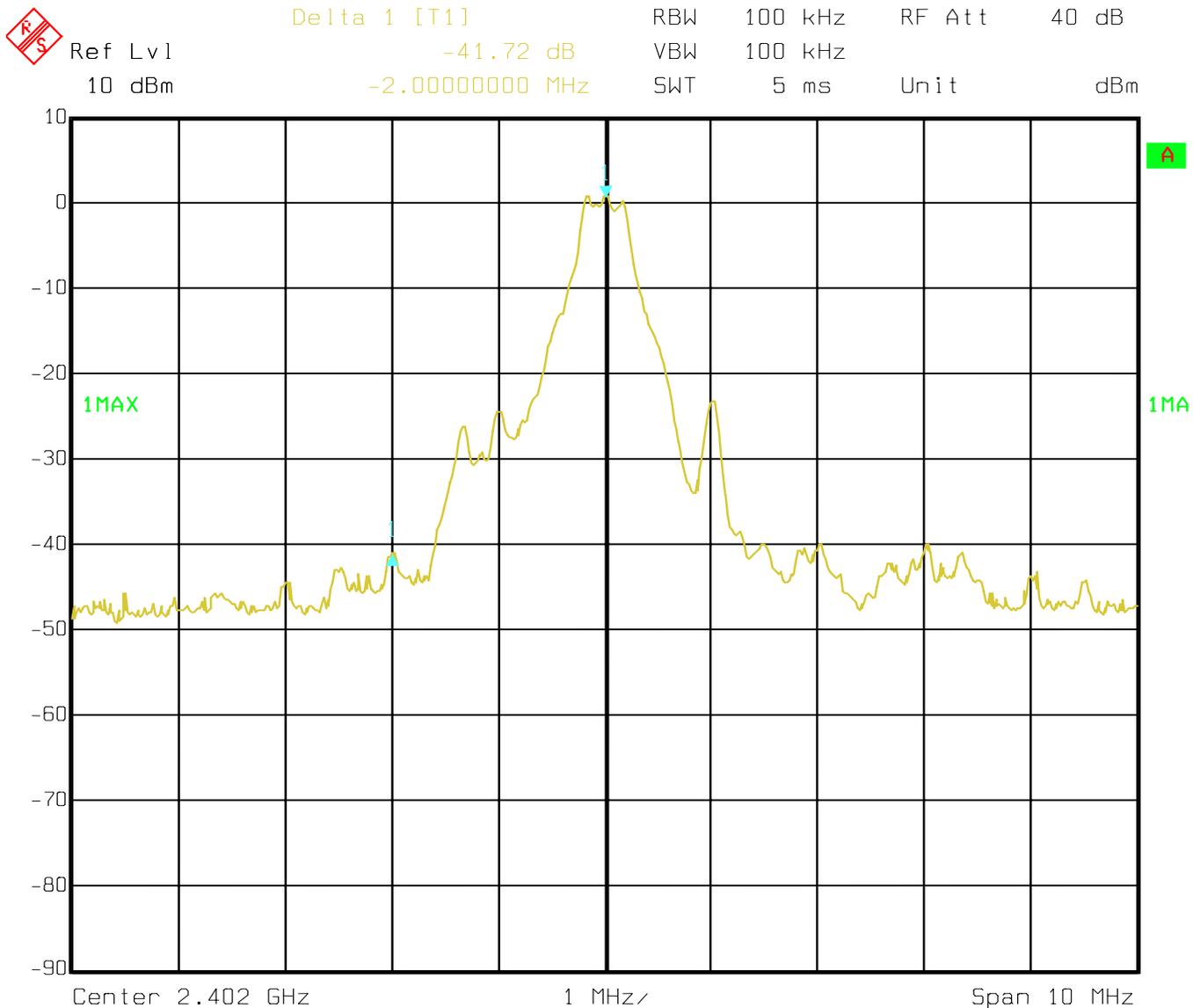


Figure 6-45: Plot of lower band-edge conducted emissions with hopping disabled

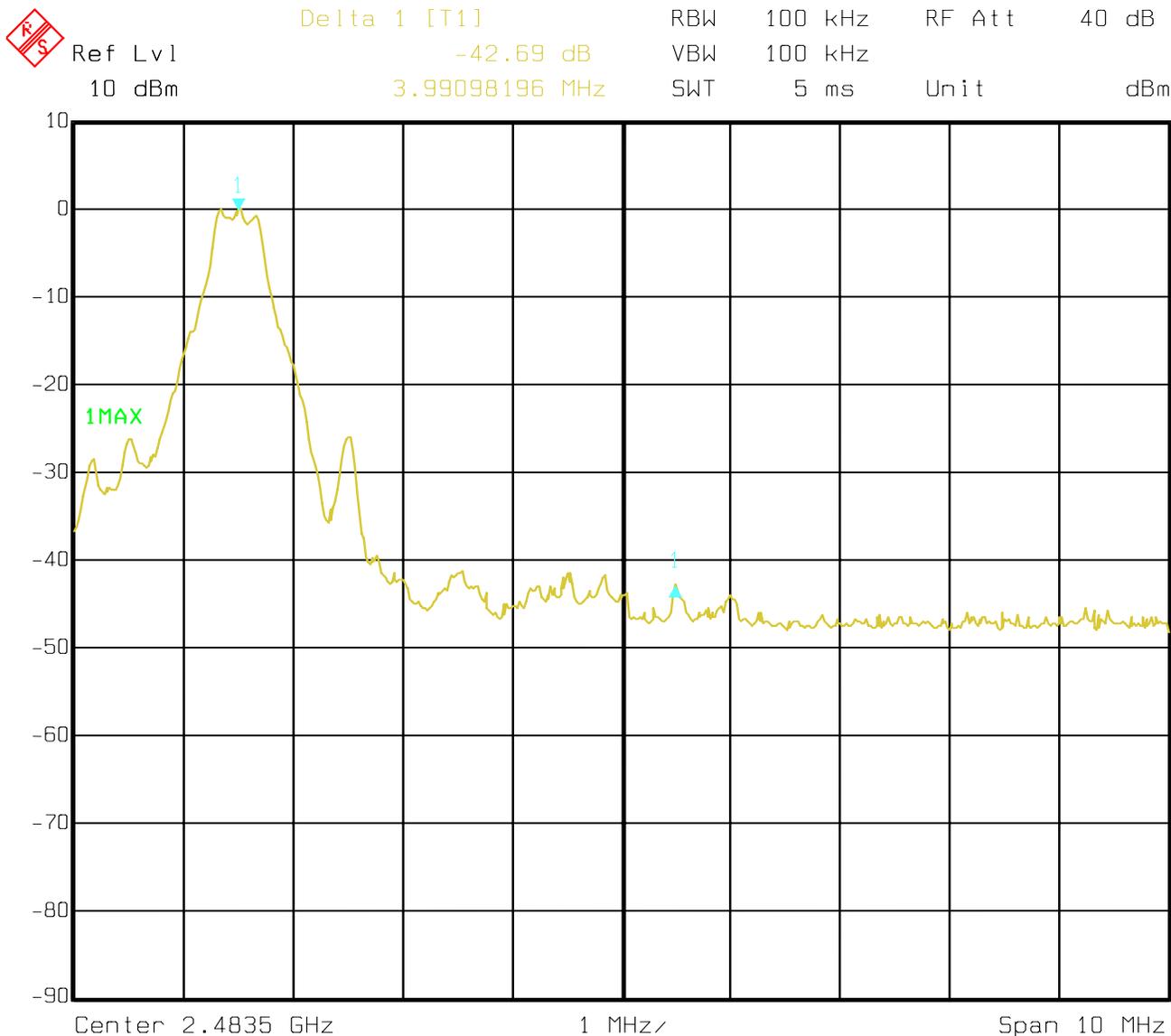


Figure 6-46: Plot of upper band-edge conducted emissions with hopping disabled



Delta 1 [T1] RBW 100 kHz RF Att 40 dB
Ref Lvl -40.66 dB VBW 100 kHz
10 dBm -2.00000000 MHz SWT 5 ms Unit dBm

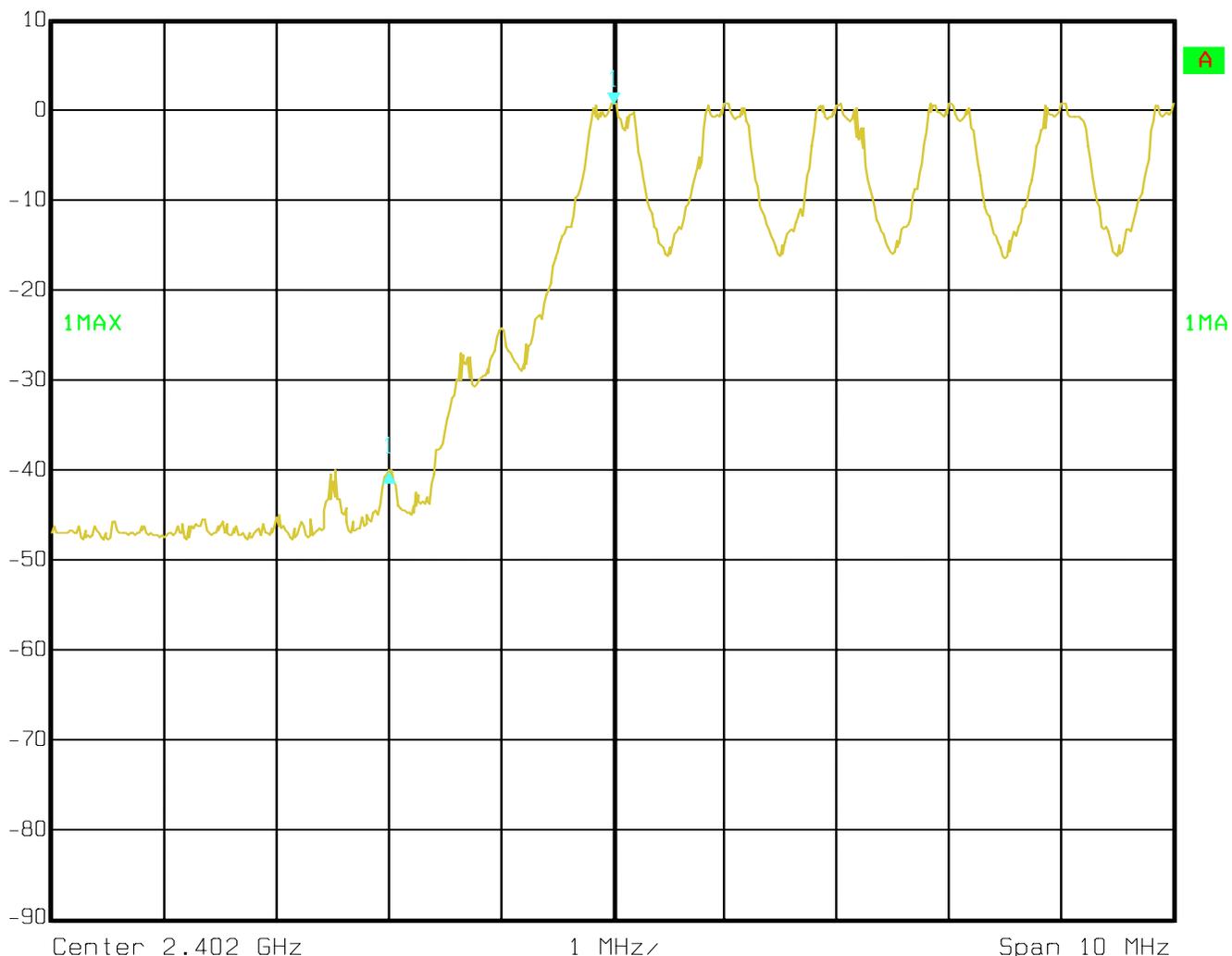


Figure 6-47: Plot of lower band-edge conducted emissions with hopping enabled

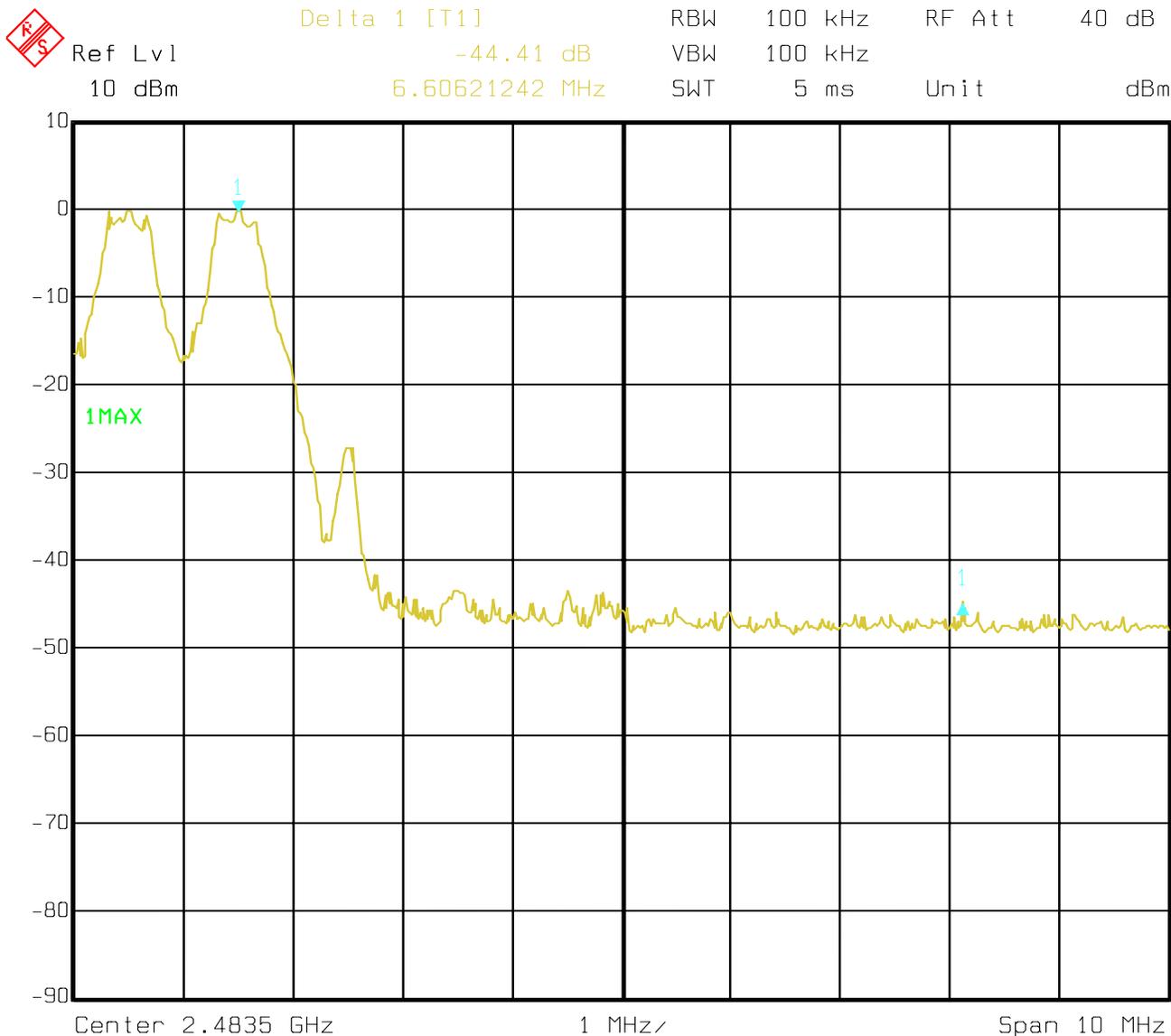


Figure 6-48: Plot of upper band-edge conducted emissions with hopping enabled

6.8.7 Spurious RF Conducted Emissions – Pursuant 47 CFR 15.247(c)

The emissions are below 30 dBc at the second harmonic of the transmit frequency and far lower at all other frequencies.

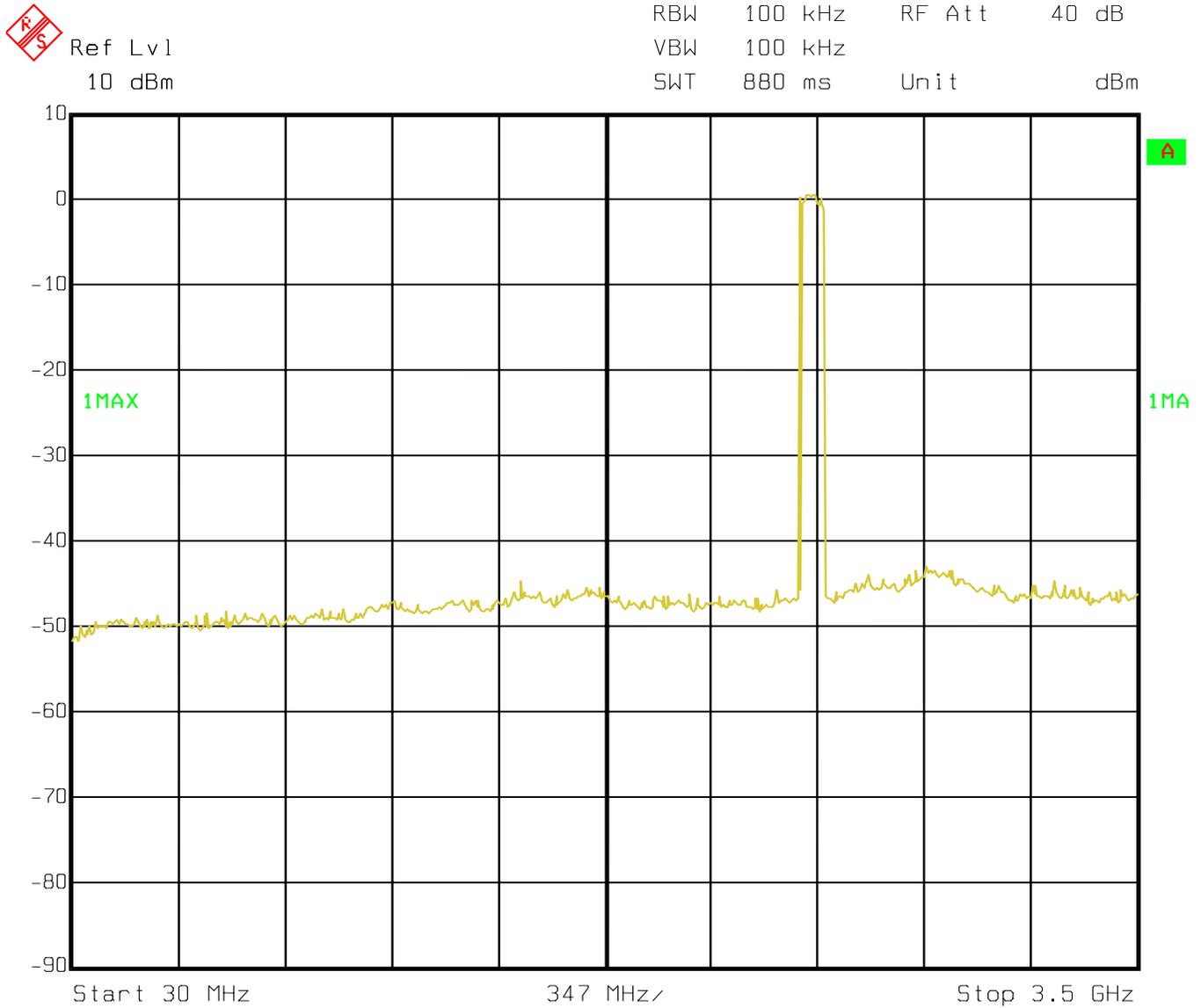


Figure 6-49: Plot of spurious conducted emissions 30 MHz – 3.5 GHz



Ref Lvl
10 dBm

RBW 100 kHz RF Att 40 dB
VBW 100 kHz
SWT 2.5 s Unit dBm

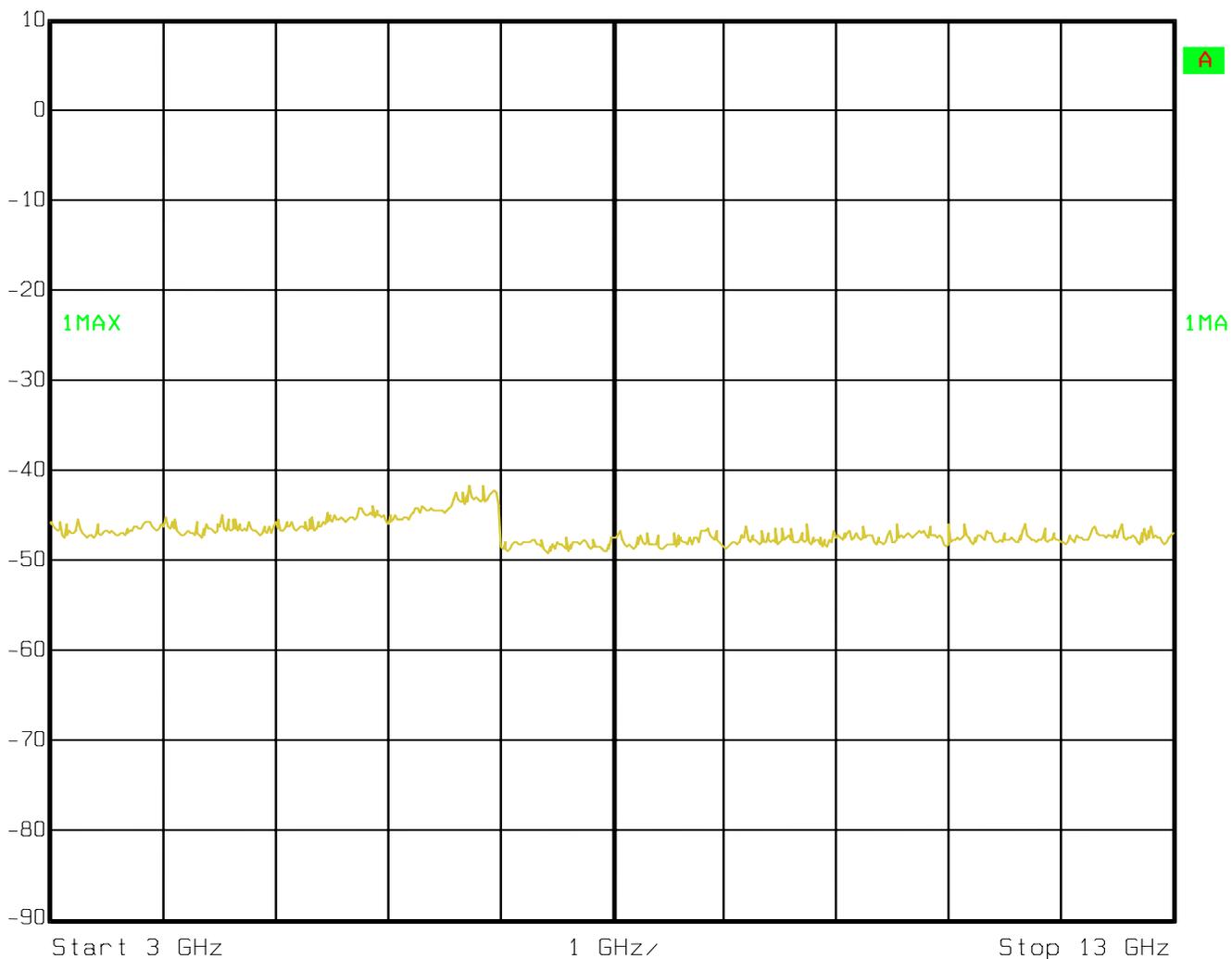


Figure 6-50: Plot of spurious conducted emissions 3 GHz – 13 GHz



Ref Lvl
10 dBm

RBW 100 kHz RF Att 40 dB
VBW 100 kHz
SWT 3.4 s Unit dBm

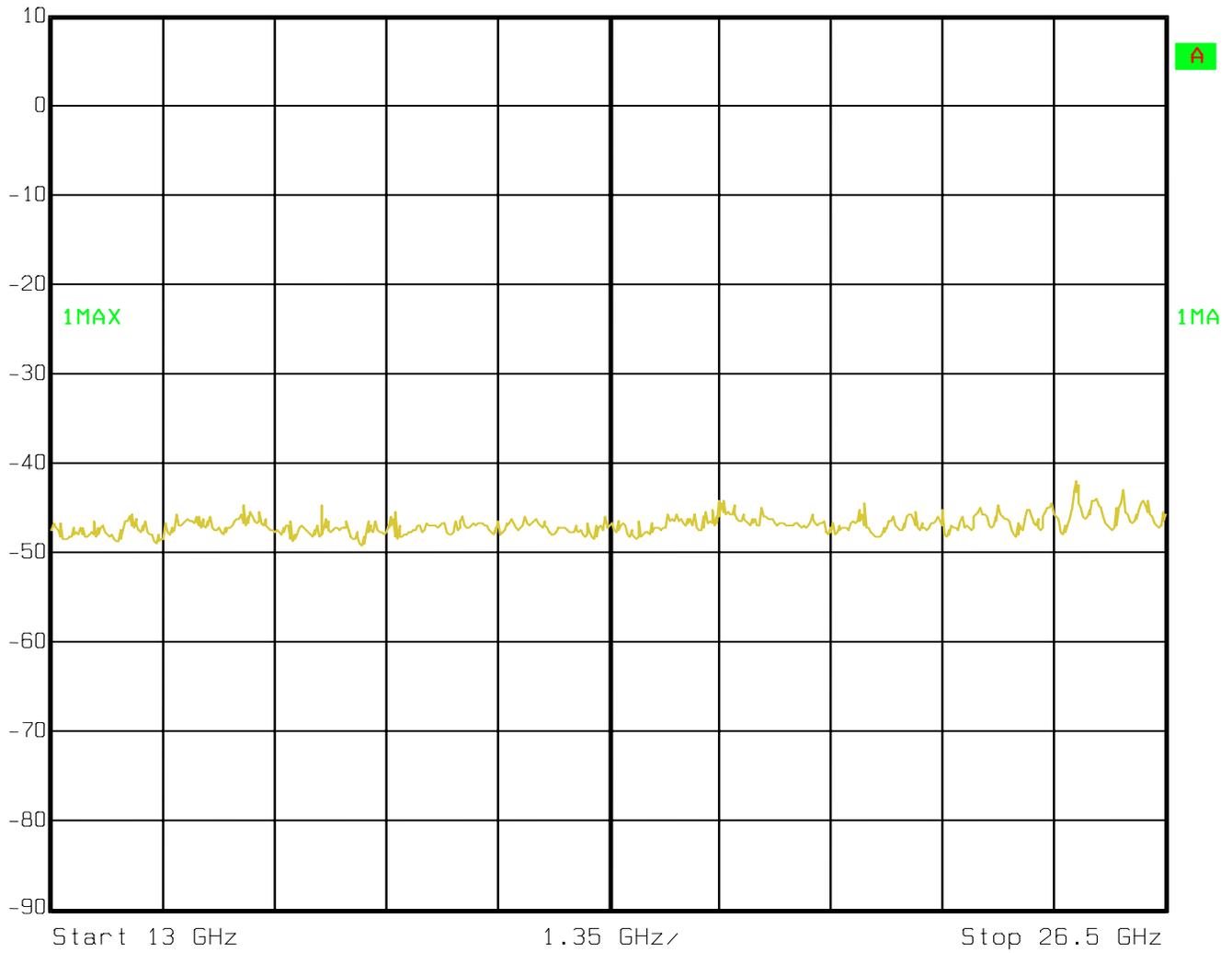


Figure 6-51: Plot of spurious conducted emissions 13 GHz – 26.5 GHz