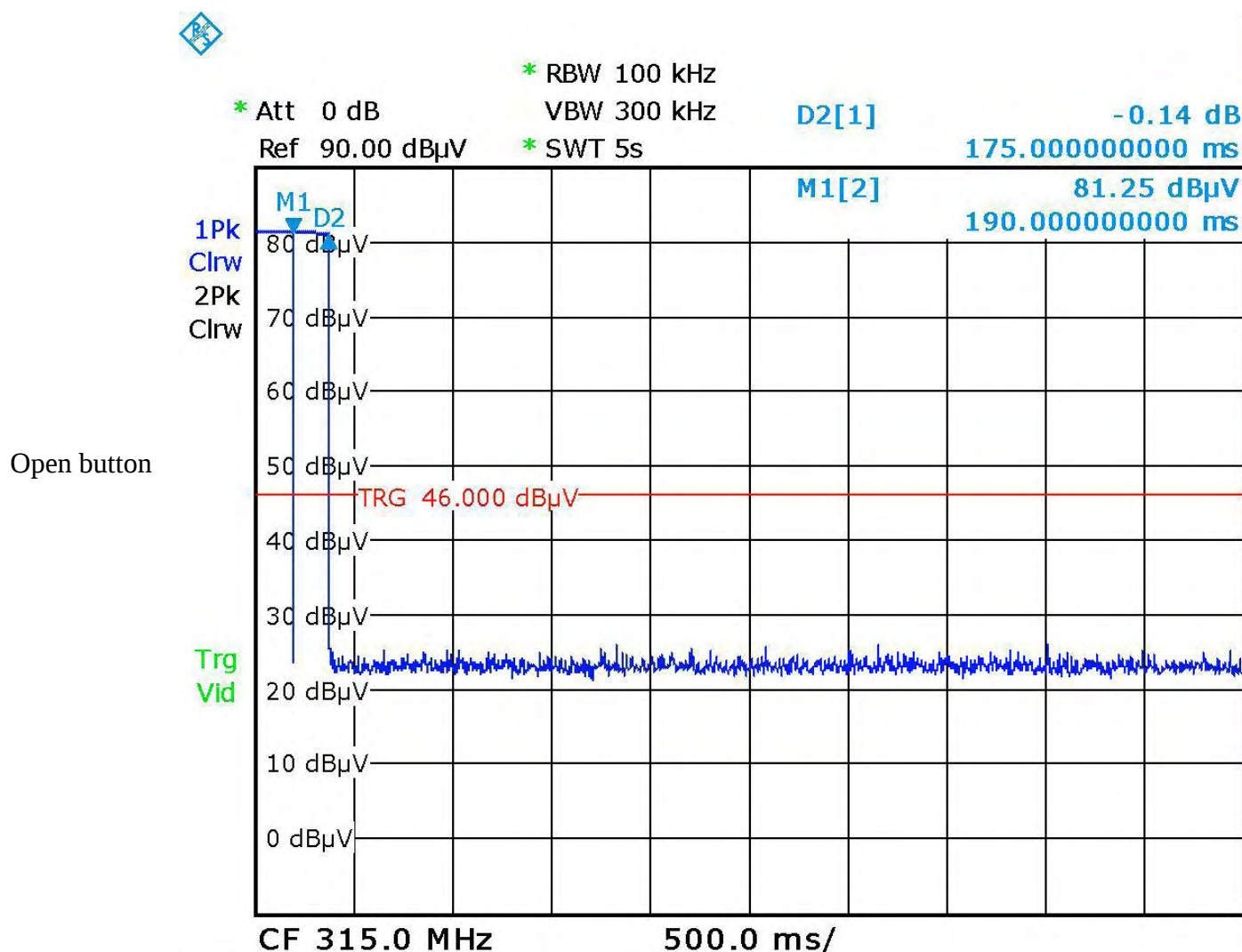


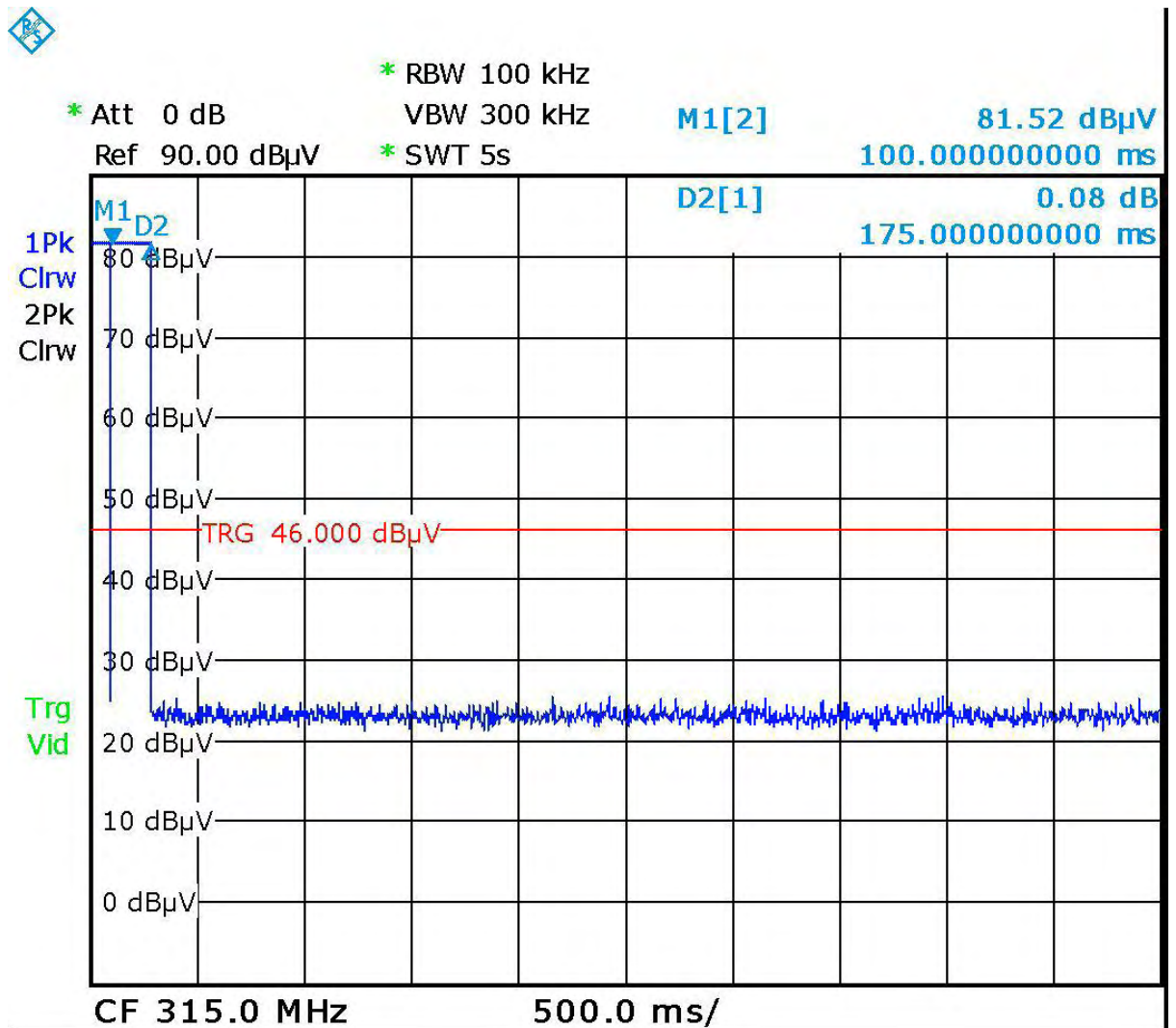
Annex no. 11

Periodic Operation Characteristics

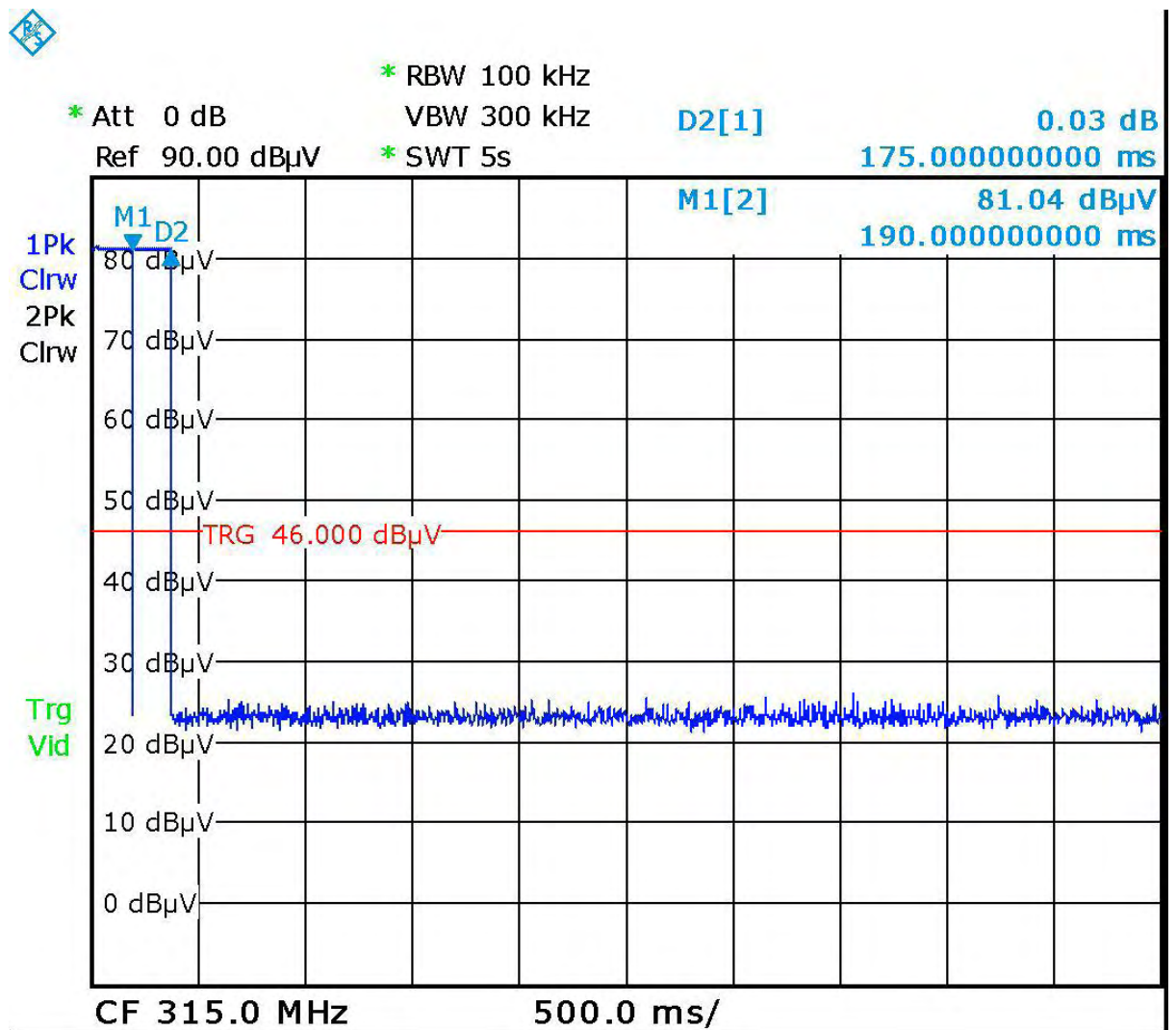
RSS-210 Section A1.1.1 (1) / FCC Section 15.231 (a)(1): A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.



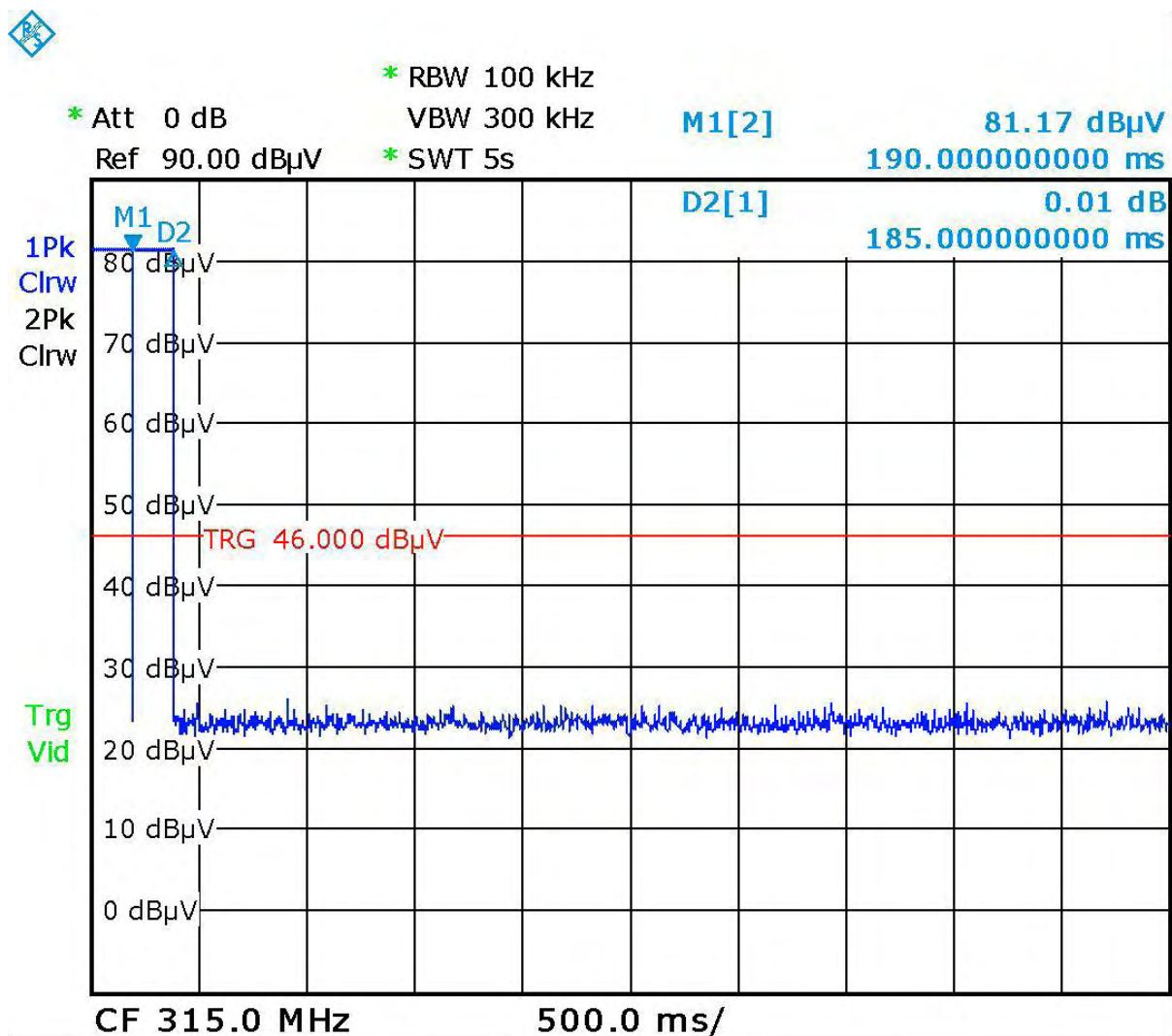
M1: release point



M1: release point



M1: release point

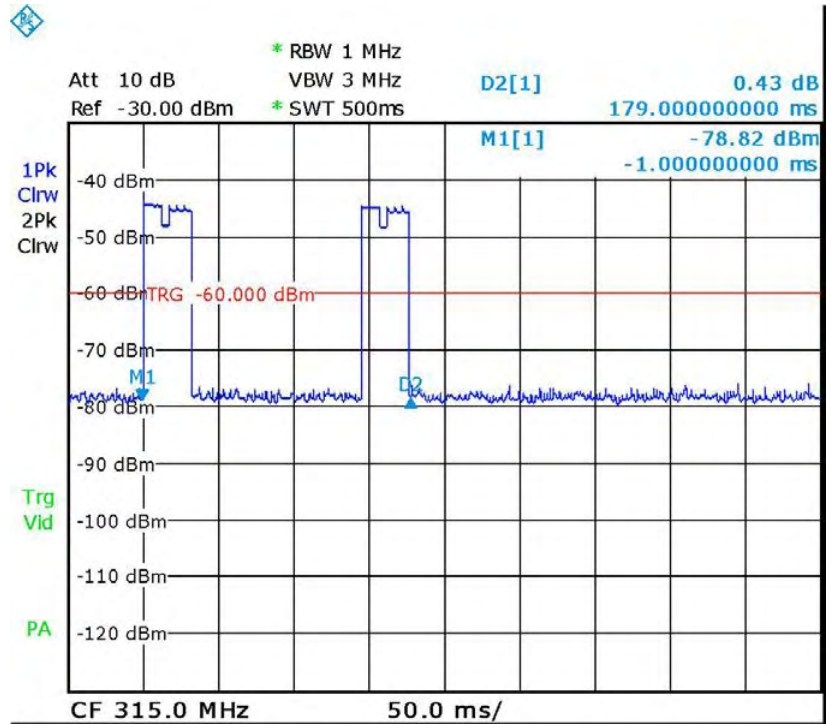


Panic button

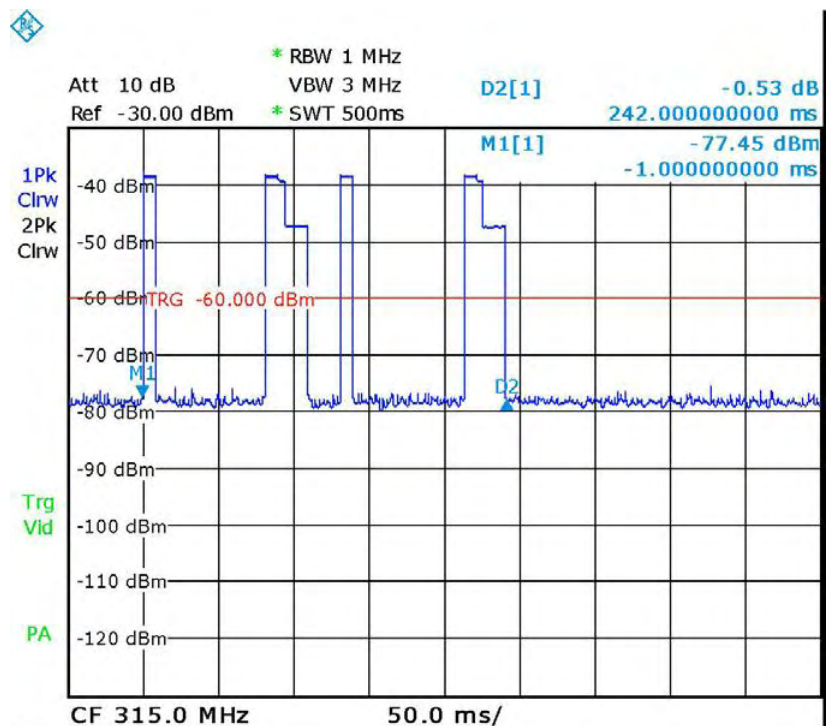
M1: release point

Automatically operated transmitter deactivation

RSS-210 Section A1.1.1 (2) / FCC Section 15.231 (a)(2): A transmitter activated automatically shall cease transmission within 5 seconds after activation.

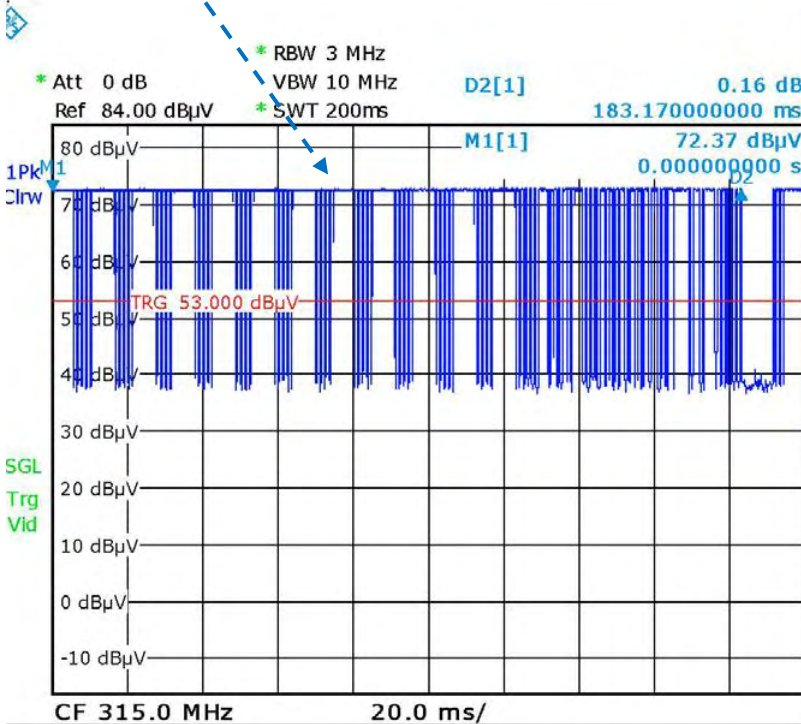
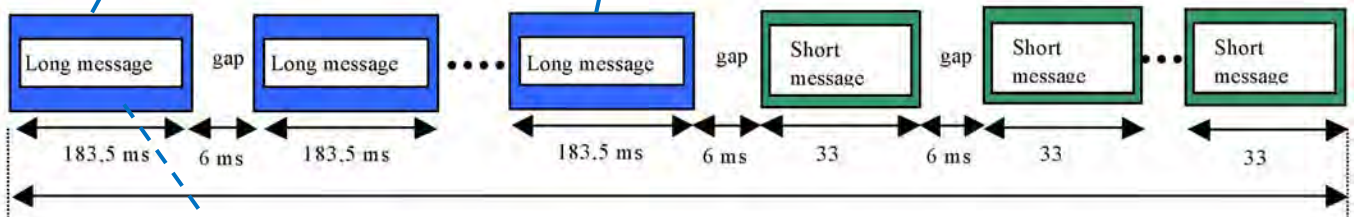
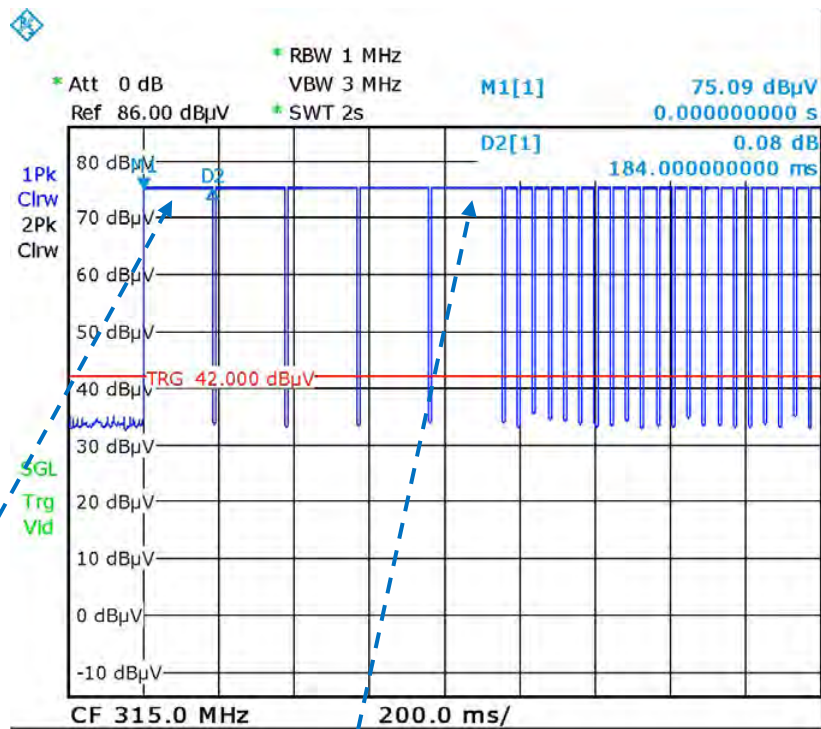


Passive mode
Type I sequence

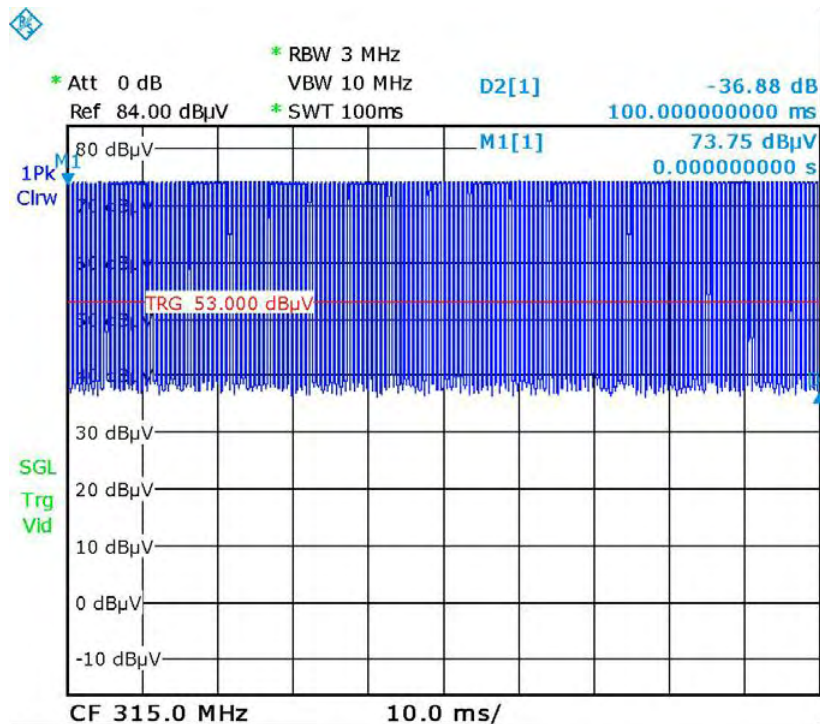


Passive mode
Type II sequence

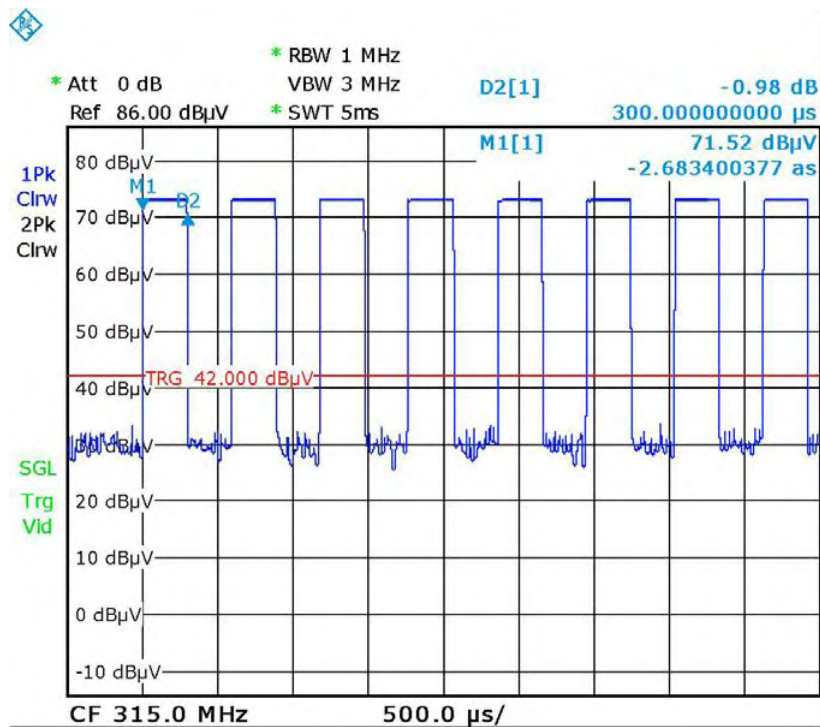
Transmission times (Active entry mode)



Long message = 183.17 ms



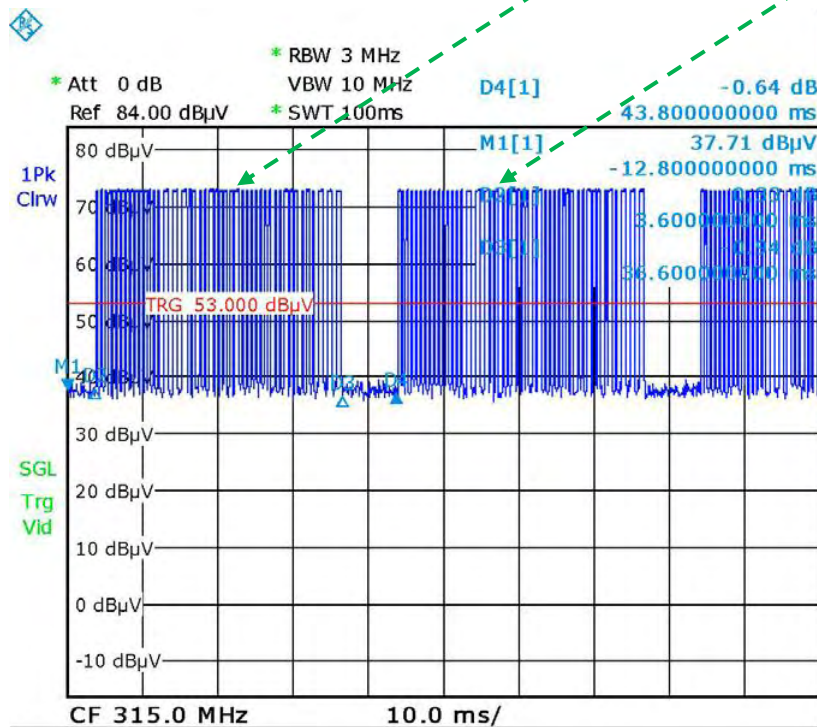
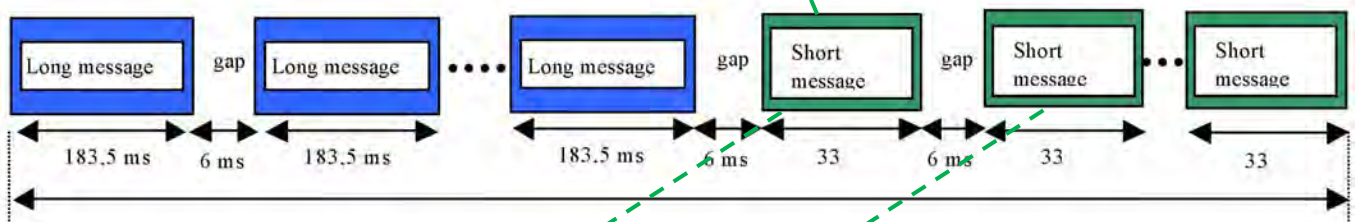
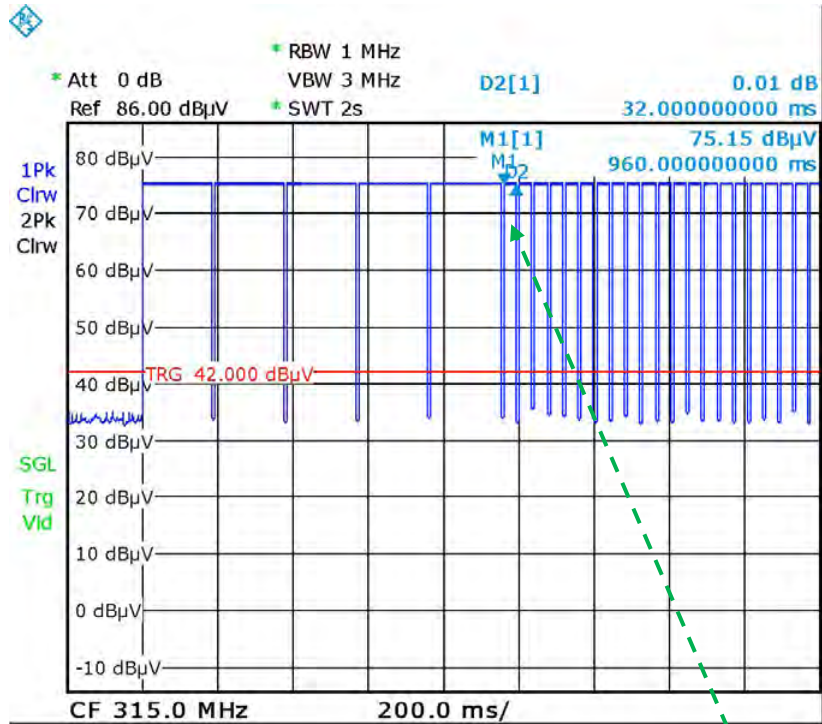
Long message = 183.17 ms
 Single pulse = 300μs
 170 pulses a'300μs = 51 ms



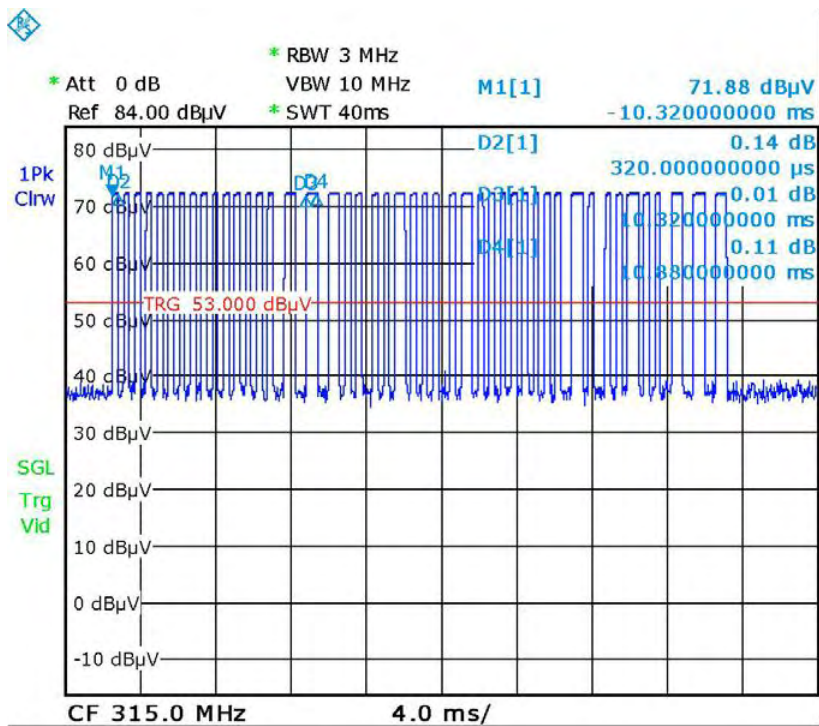
Averaging correction factor:

$$\begin{aligned}
 20\log (TX_{on}/100ms) &= \\
 20\log (51ms/100ms) &= -5.85 \text{ dB}
 \end{aligned}$$

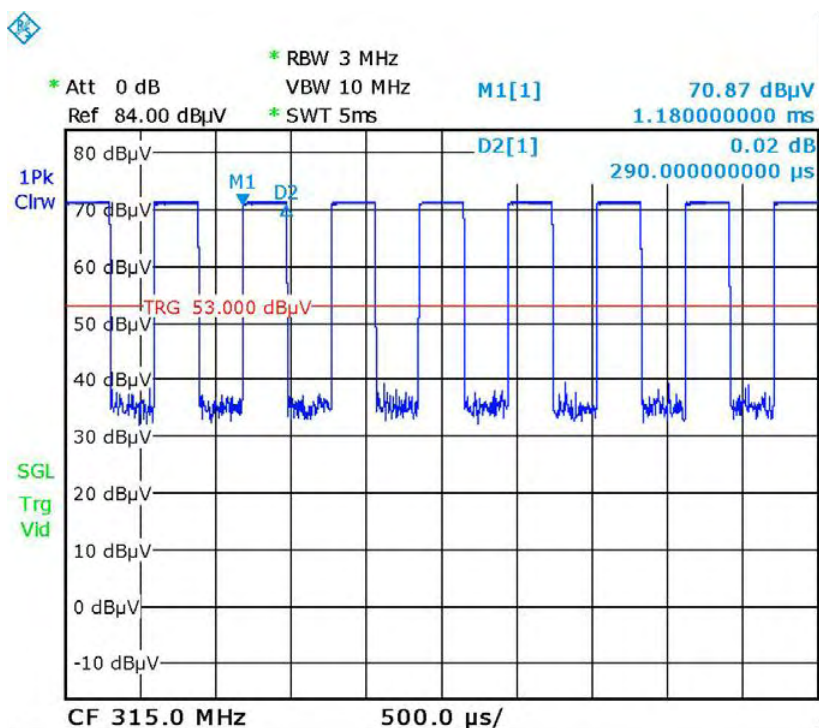
Short message



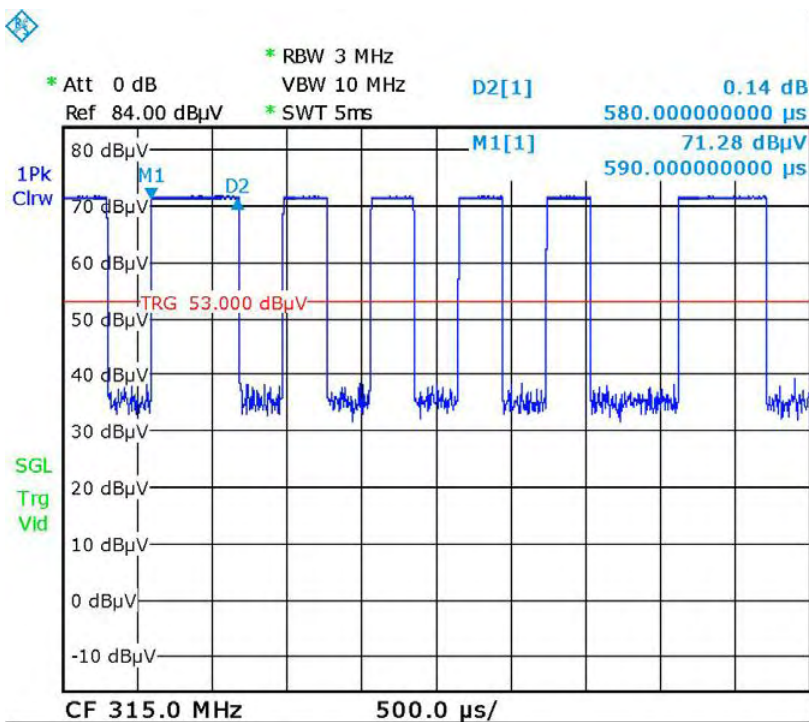
Short message = 33.0 ms



One short message
with
37 type 1 pulses
and
10 type 2 pulses



Type 1 pulse = 290 μs



Type 2 pulse = 580 μs

Worst case transmission time in a 100 ms periode:

Short message block 1 = 37 * Type 1 pulse + 10 * Type 2 pulse
 = 37 * 290 μs + 10 * 580 μs = 16.53 ms
 Short message block 2 = 40 * Type 1 pulse + 9 * Type 2 pulse
 = 40 * 290 μs + 9 * 580 μs = 16.82 ms
 Short message block 3 = 19 * Type 1 pulse + 4 * Type 2 pulse
 = 39 * 290 μs + 9 * 580 μs = 7.83 ms
 Total transmission time = 41.18 ms

Averaging correction factor:

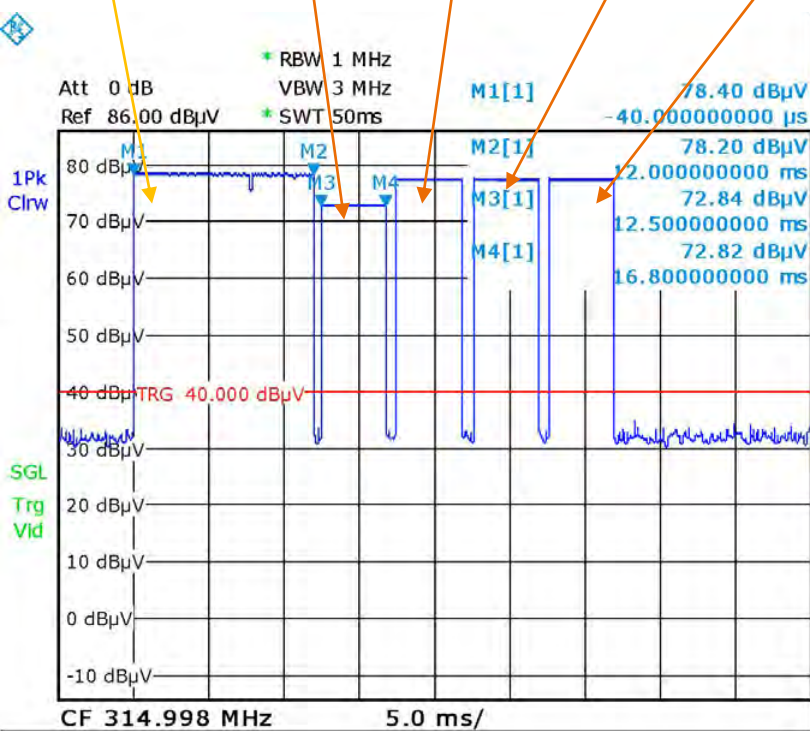
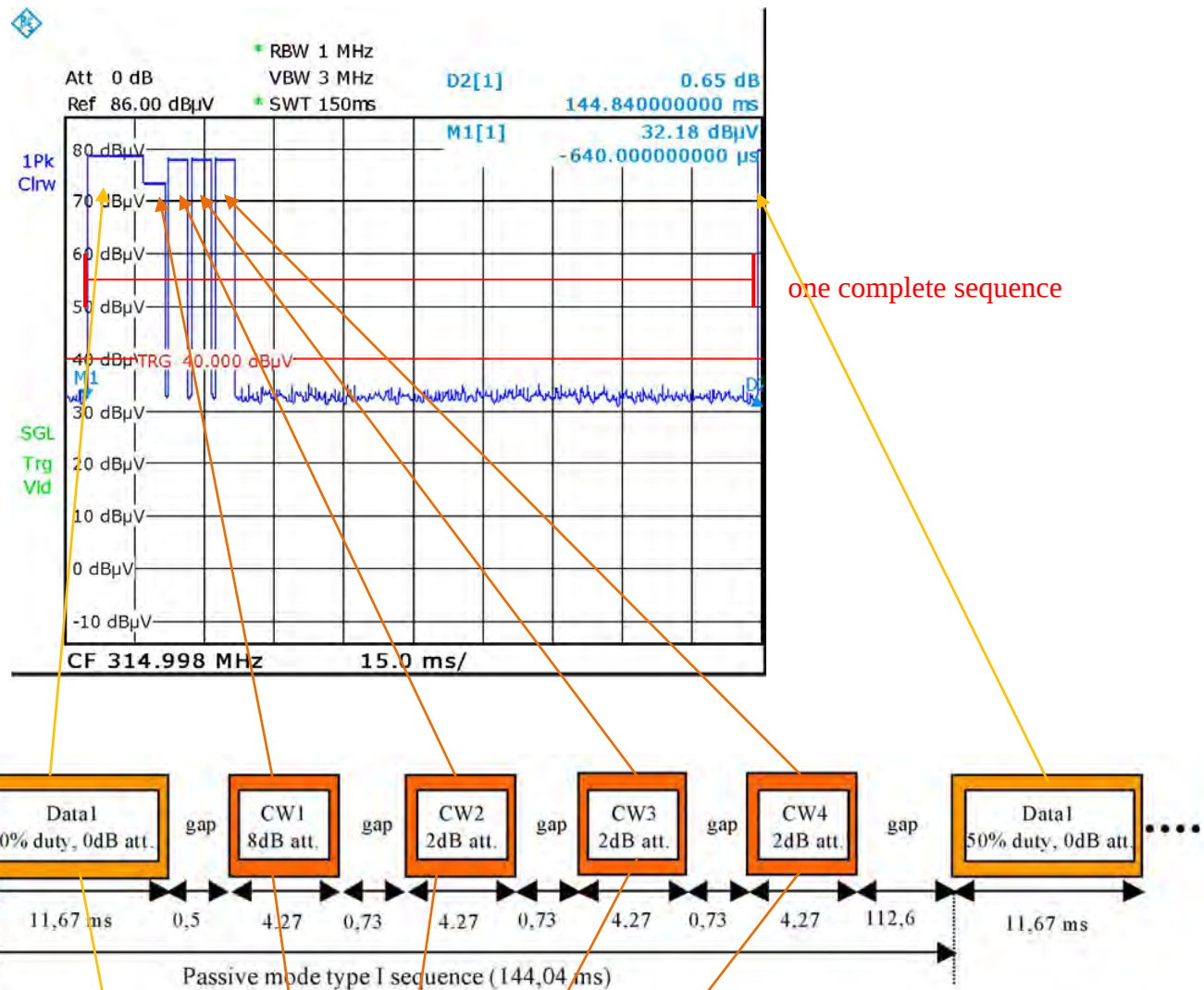
$$20\log (TX_{on}/100ms) = 20\log (41.2ms/100ms) = -7.70 \text{ dB}$$

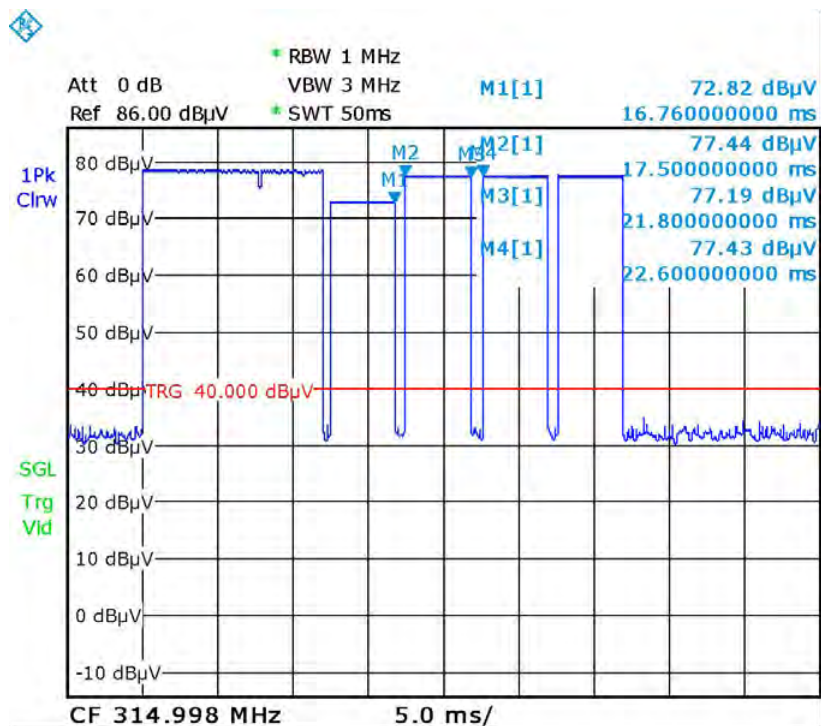
Worst case, Averaging correction factor:

$$20\log (TX_{on}/100ms) = 20\log (51ms/100ms) = -5.85 \text{ dB}$$

Transmission times (Passive entry / Passive start mode)

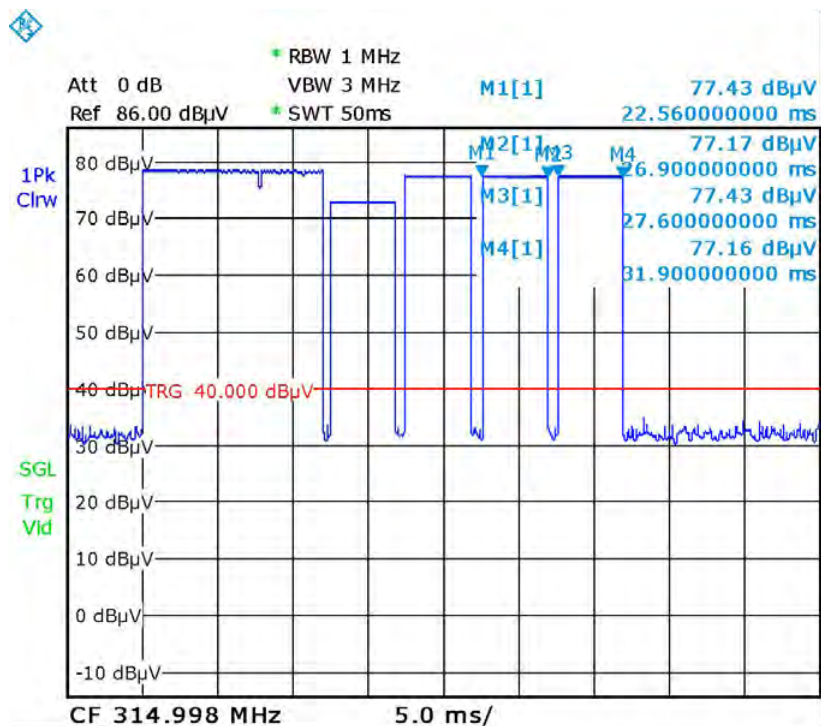
Passive mode type I sequence





Transmission times:

CW 2 : 4.3ms
CW 3 : 4.3ms
CW 4 : 4.3ms



Total Transmission times:

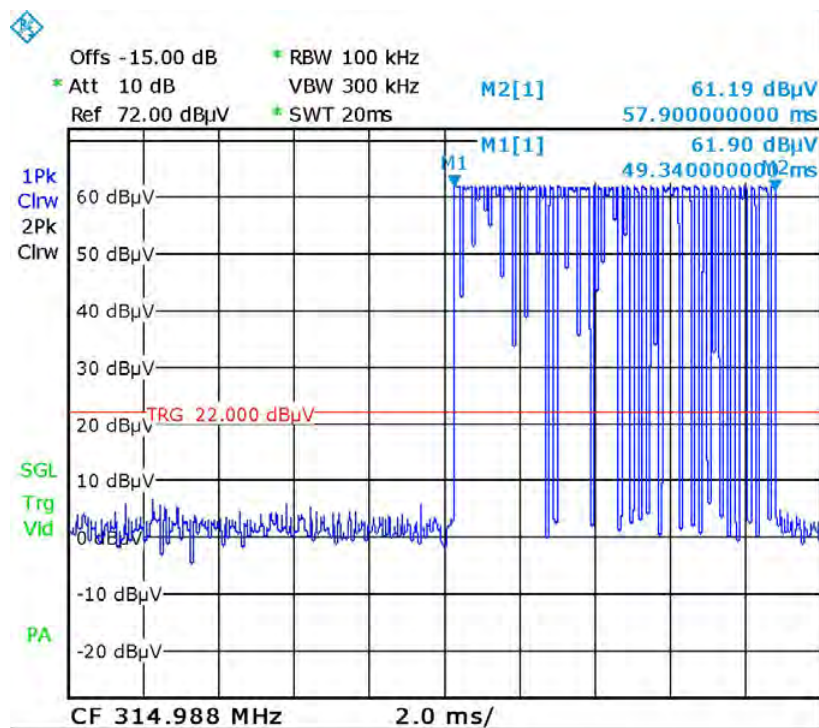
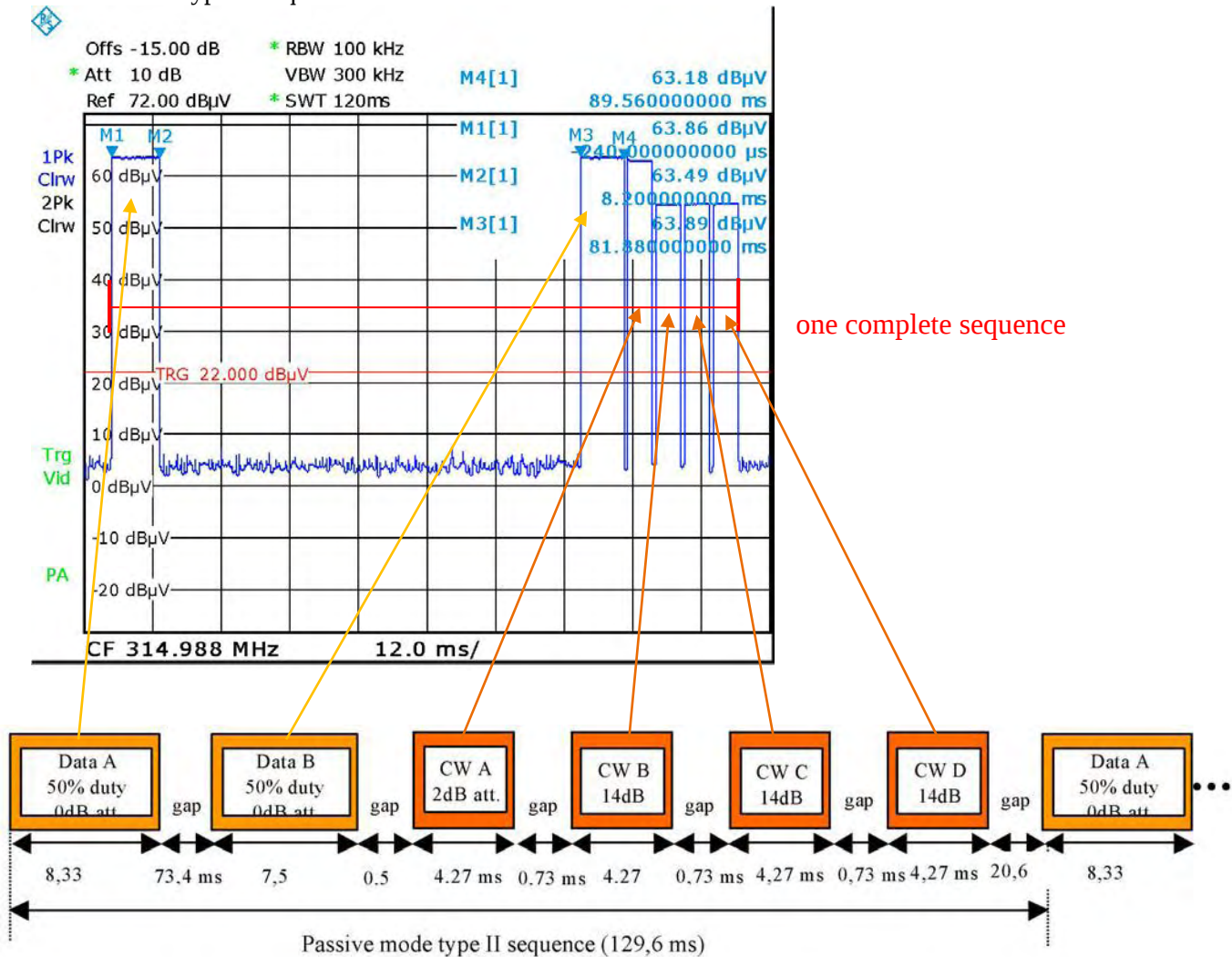
Data 1 : 12.0 ms
+ CW 1 : 4.3ms
+ CW 2 : 4.3ms
+ CW 3 : 4.3ms
+ CW 4 : 4.3ms

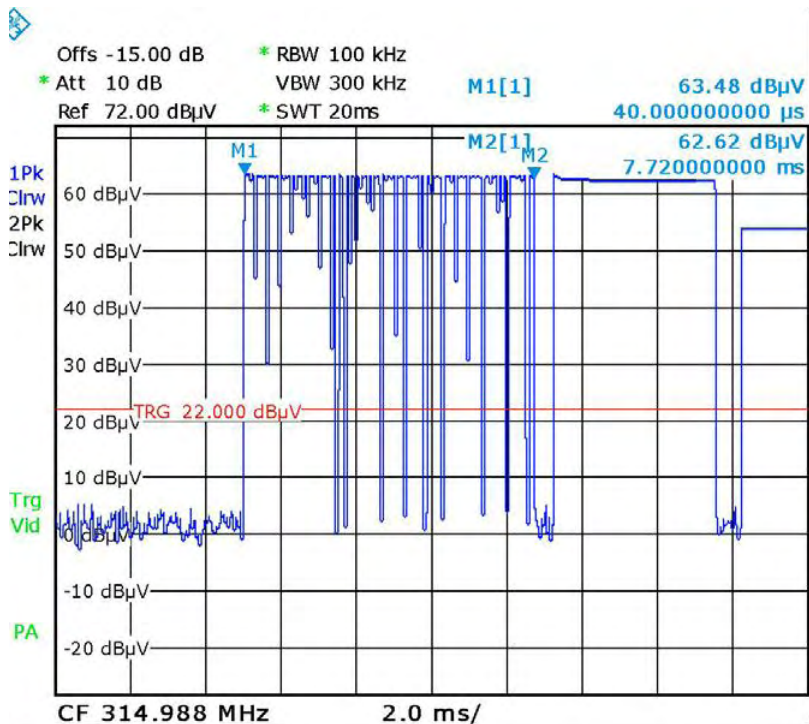
TXON = 29.2 ms

Averaging correction factor:

$$20\log (TX_{on}/100ms) = 20\log (29.2ms/100ms) = -10.69 \text{ dB}$$

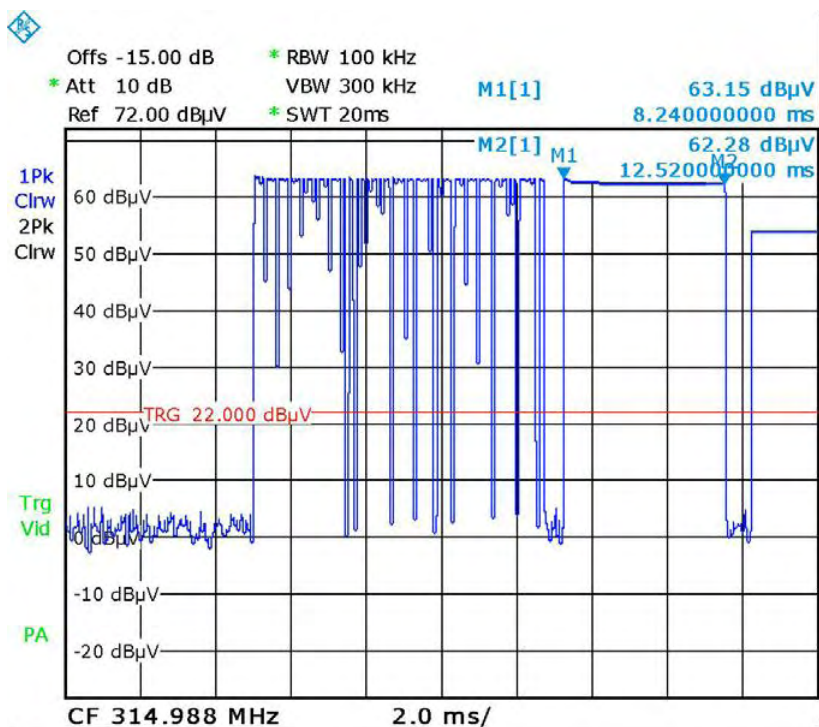
Passive mode type II sequence





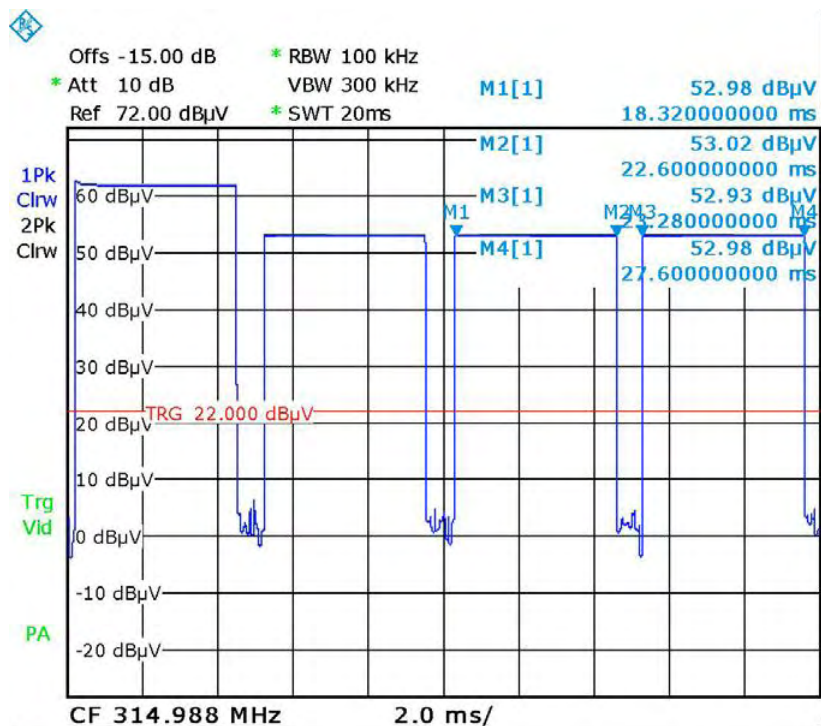
Transmission times:

Data B : 7.8 ms



Transmission times:

CW A : 4.3ms



Transmission times:

CW B : 4.3ms
 CW C : 4.3ms
 CW D : 4.3ms

Total Transmission time:

Data A : 8.6 ms
 + Data B : 7.8 ms
 + CW A : 4.3ms
 + CW B : 4.3ms
 + CW C : 4.3ms
 + CW D : 4.3ms

TXON = 17.3 ms

Averaging correction factor:

$$20\log(TX_{on}/100ms) = 20\log(29.2ms/100ms) = -10.69 \text{ dB}$$

Worst case, Averaging correction factor:

$$20\log(TX_{on}/100ms) = 20\log(51ms/100ms) = -5.85 \text{ dB}$$