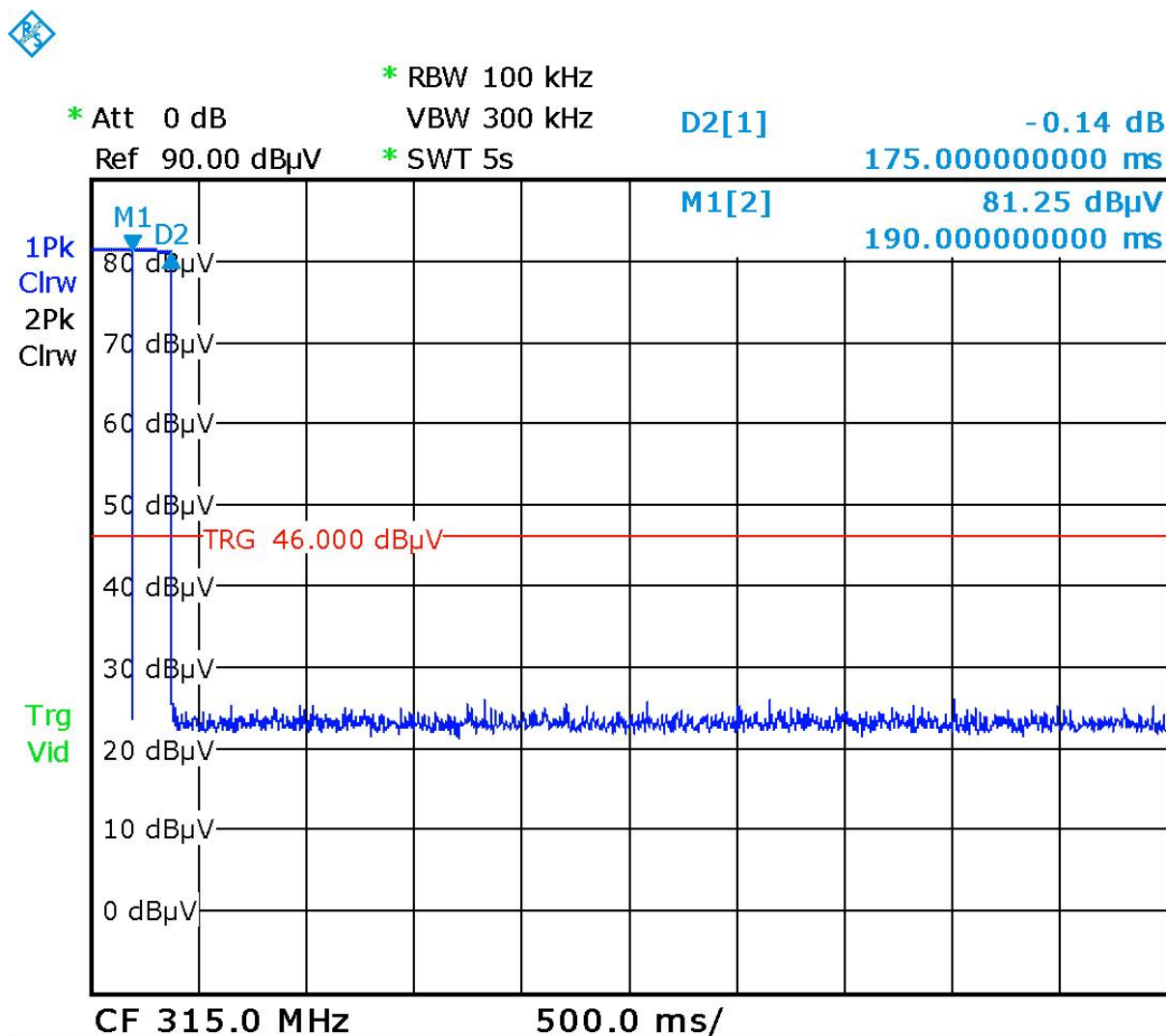
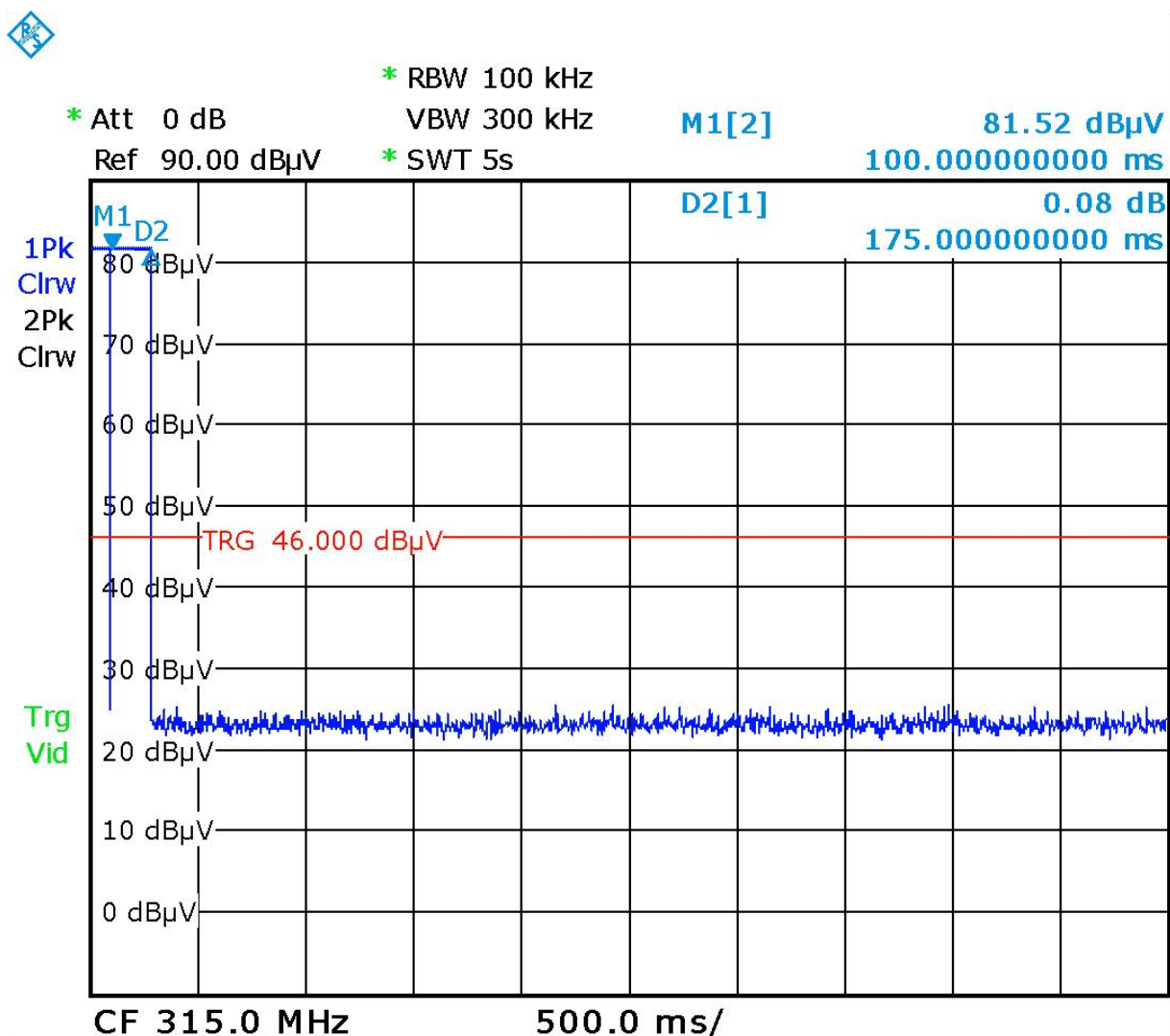


Periodic operation characteristics Manually operated transmitter deactivation

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

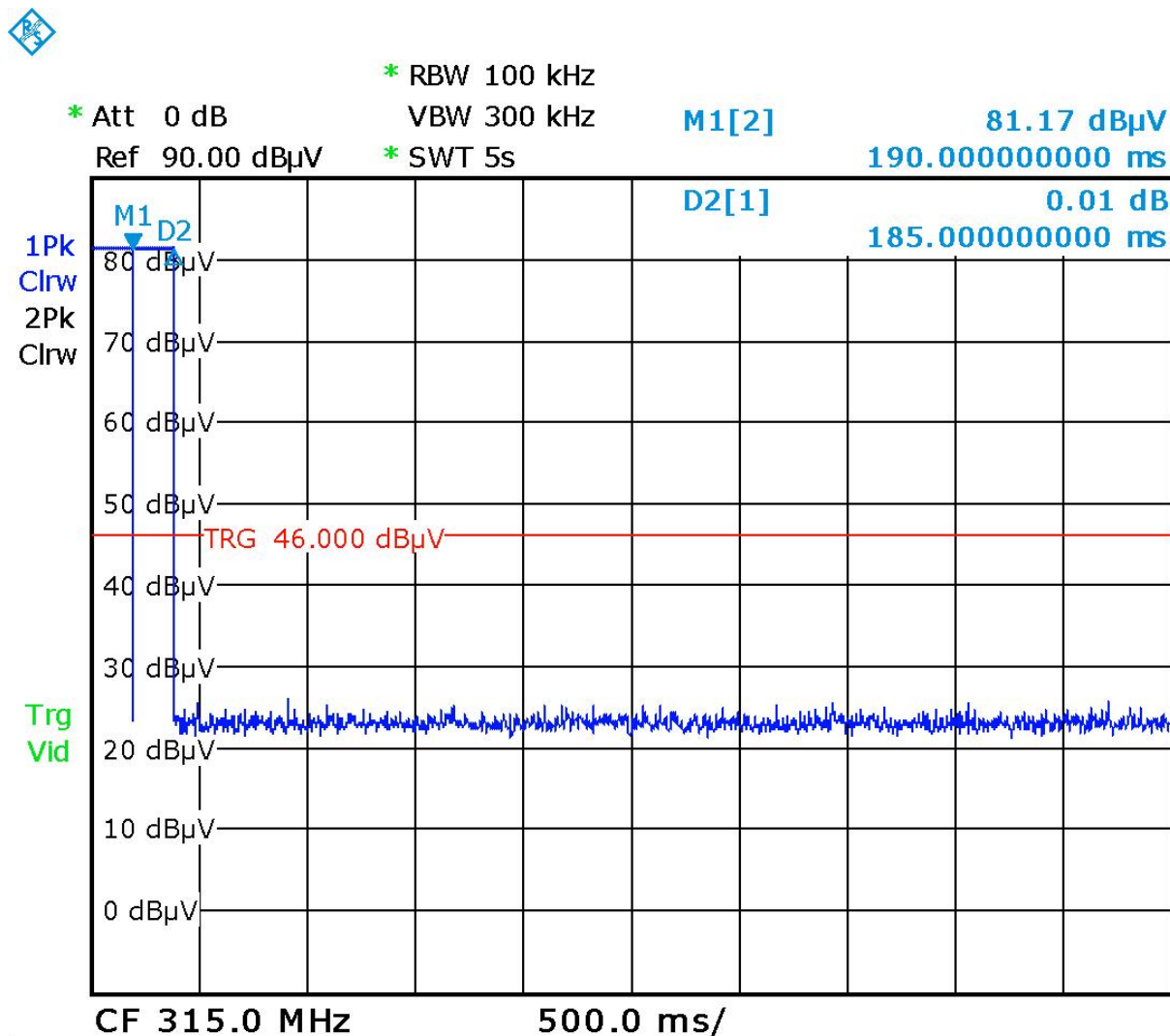


Close button

M1: release point



M1: release point

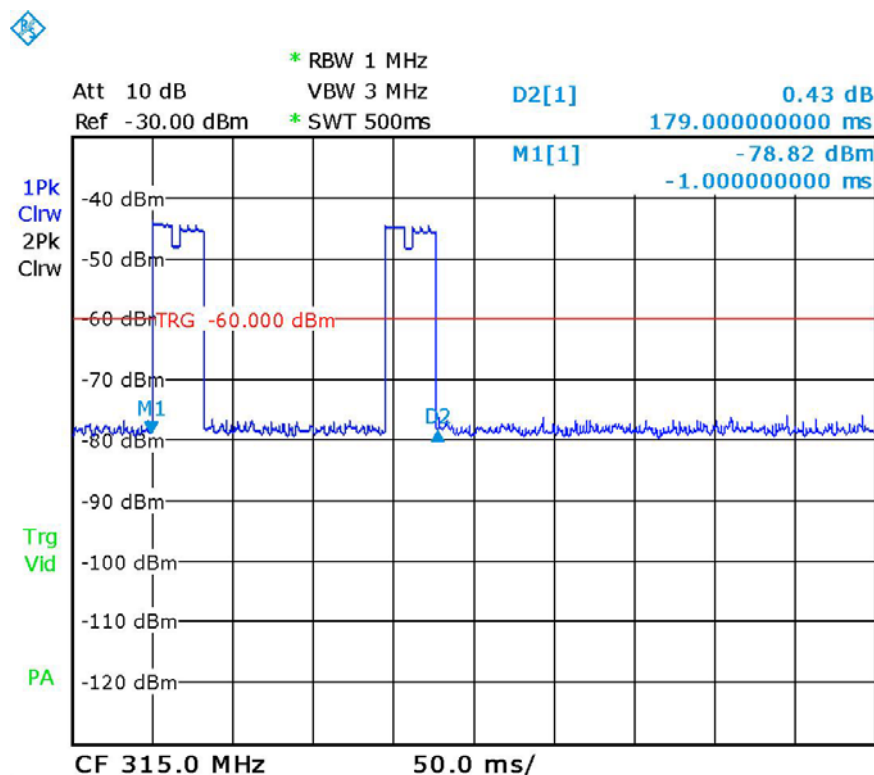


M1: release point

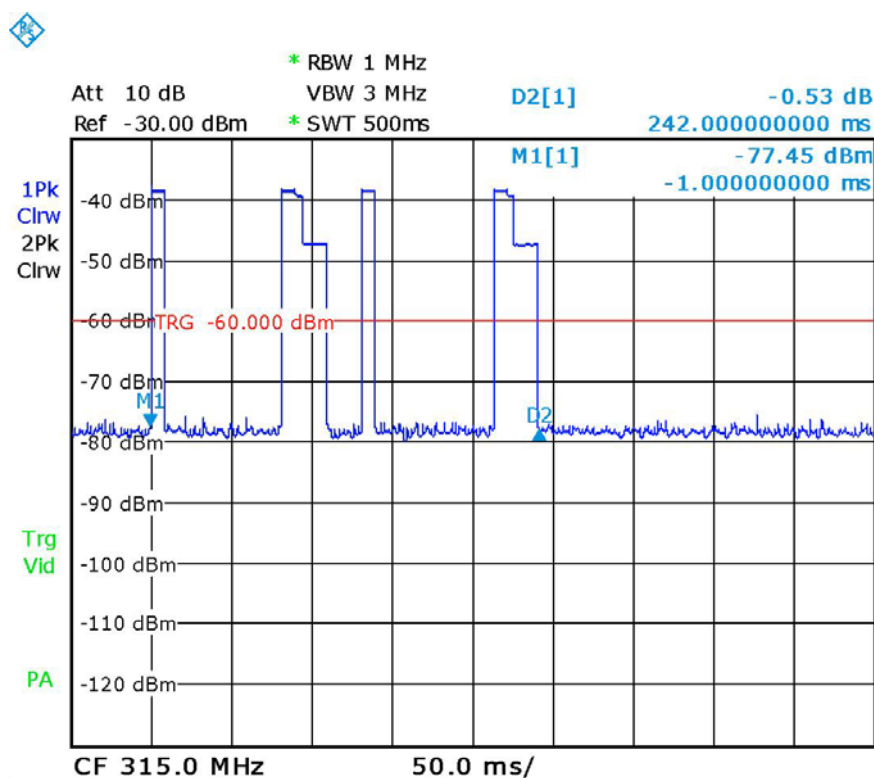
Automatically operated transmitter deactivation

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.

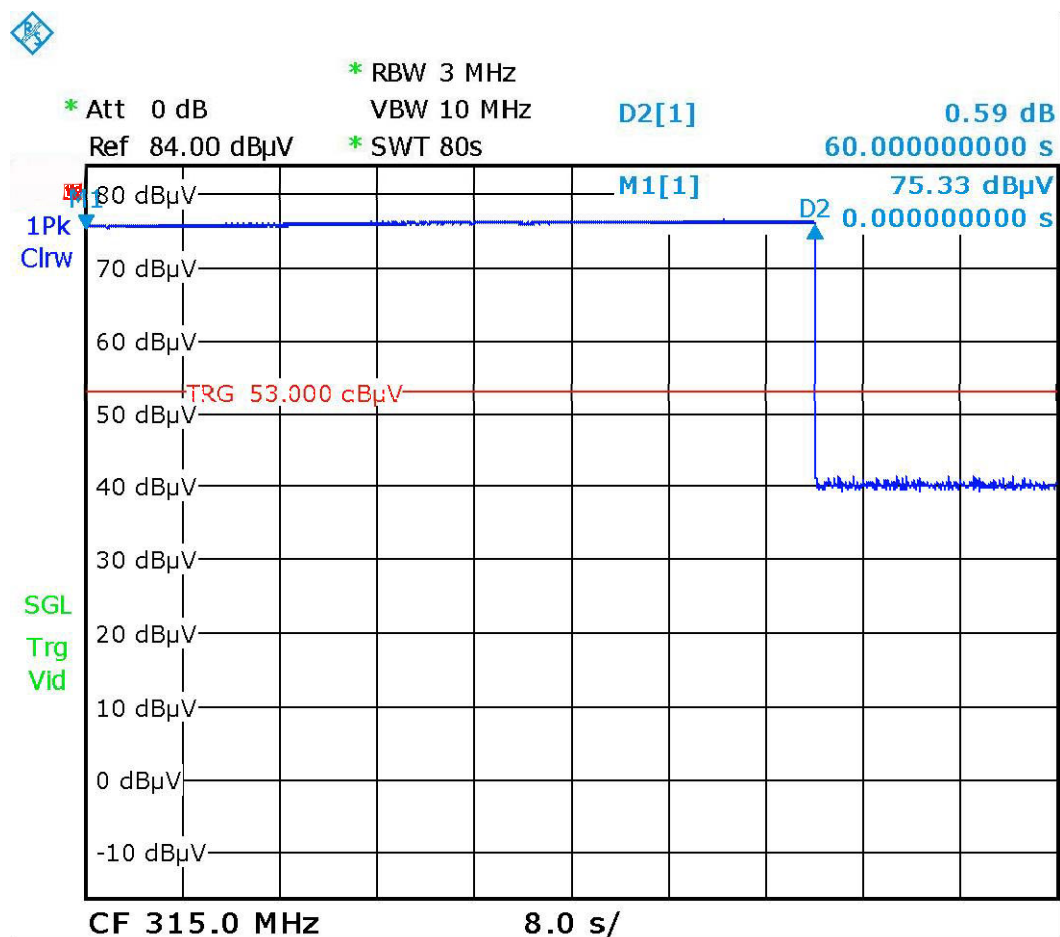
Passive mode
Type I sequence



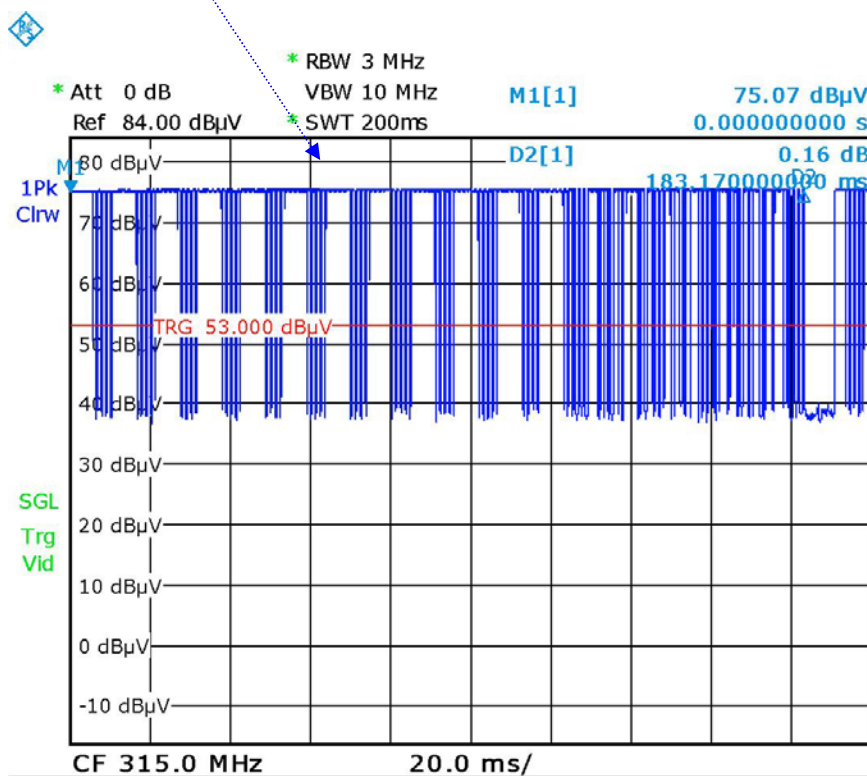
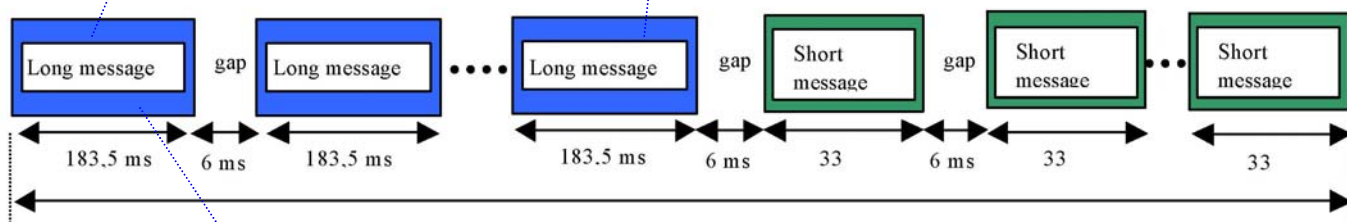
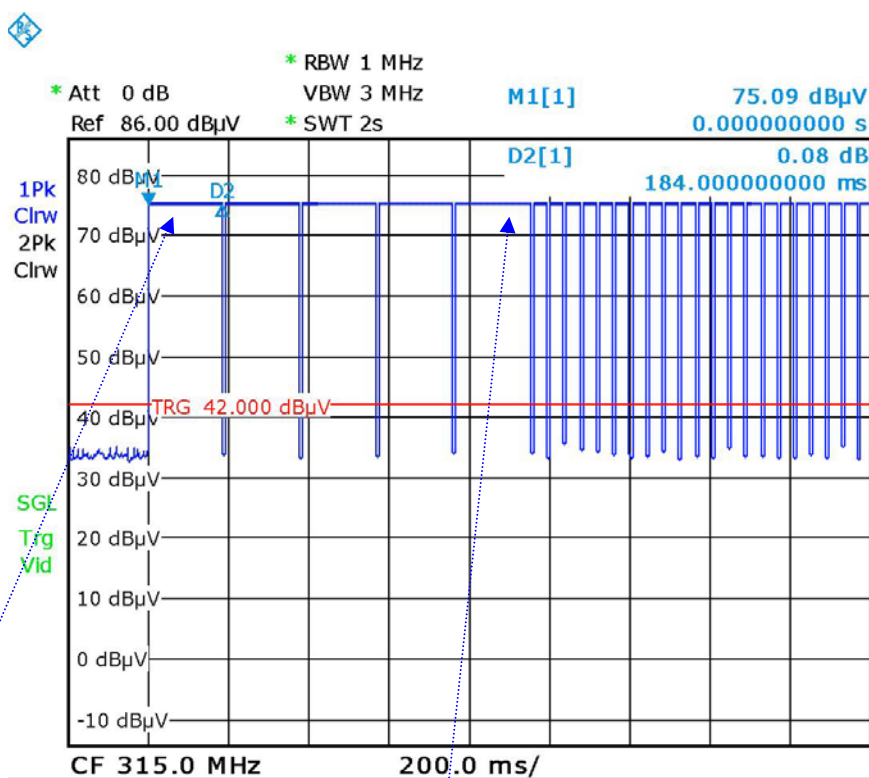
Passive mode
Type II sequence



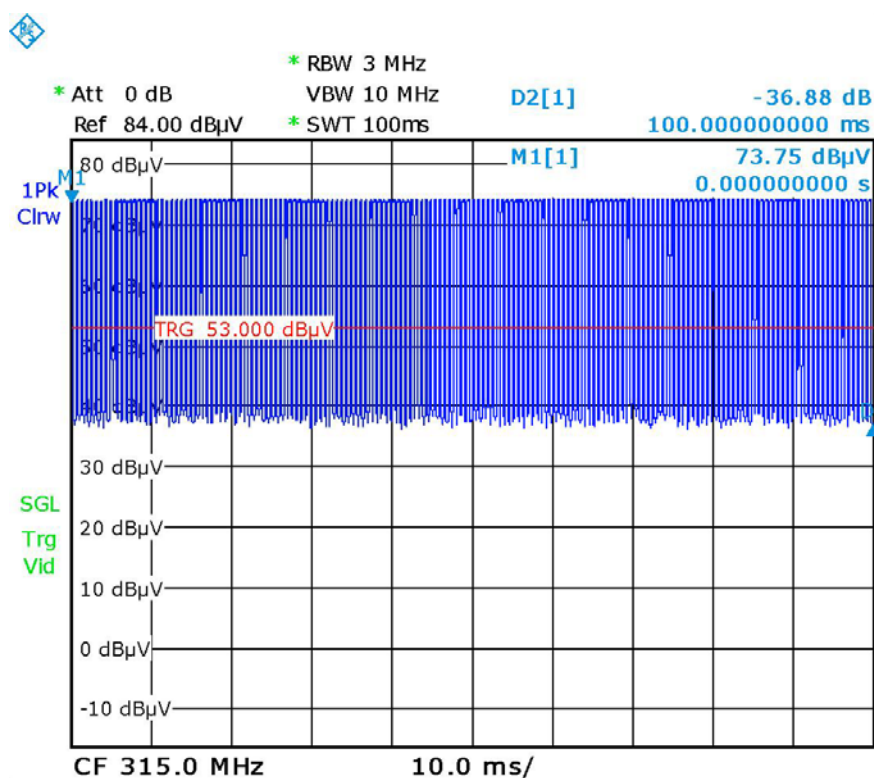
Transmission times (Active entry mode)



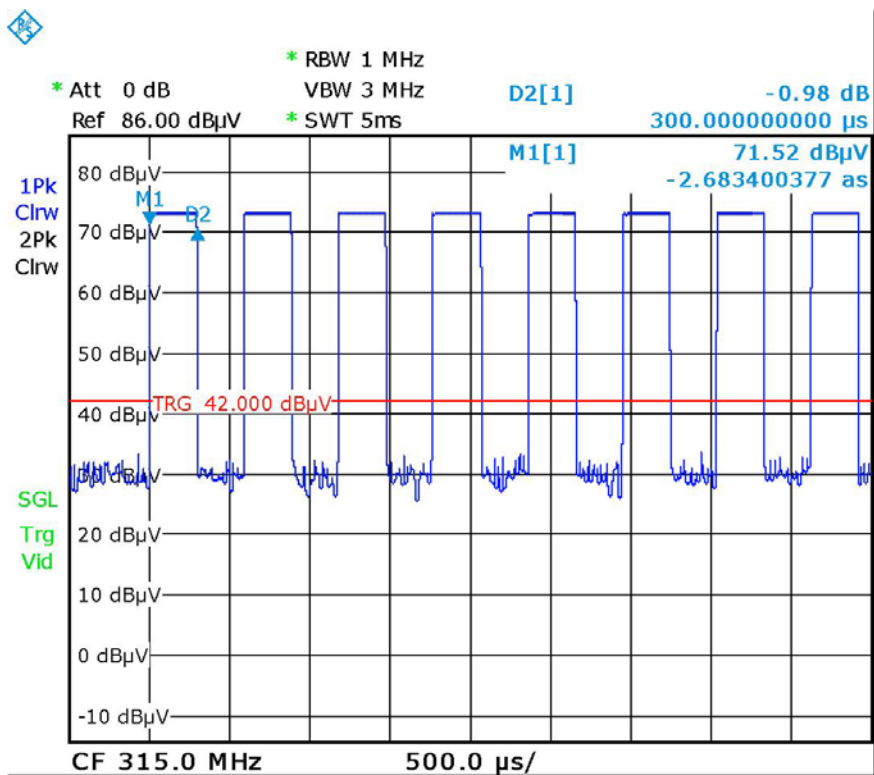
Automatic shut off time



Long message = 183.17 ms



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

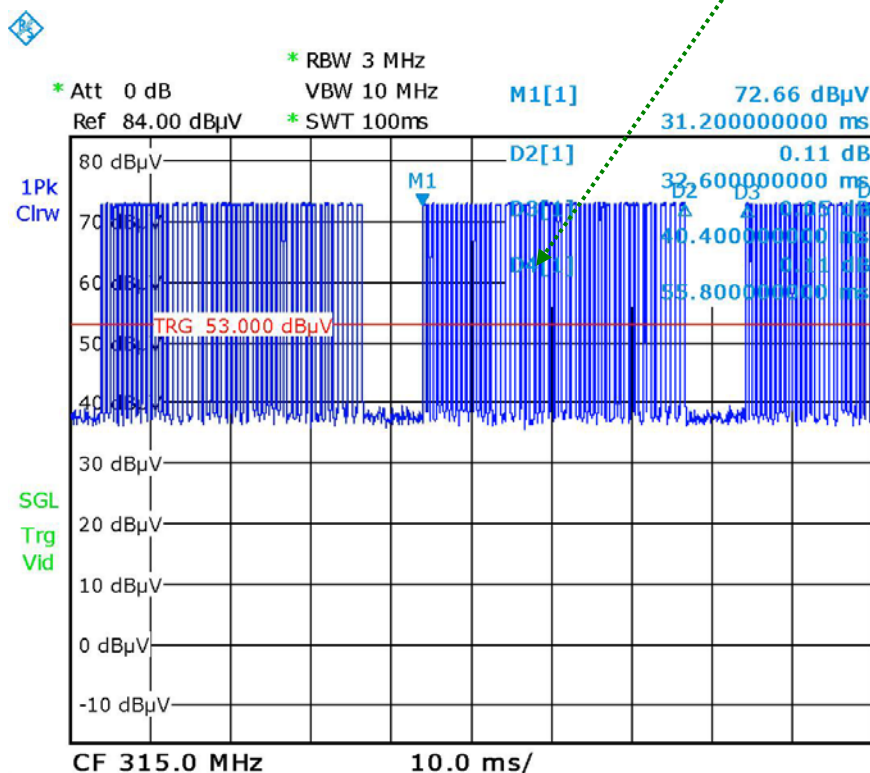
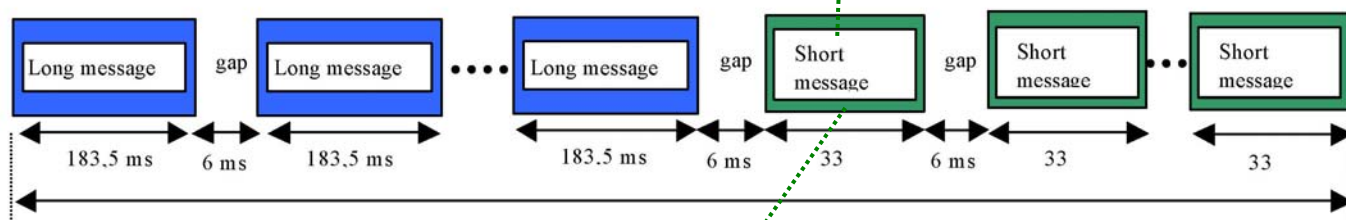
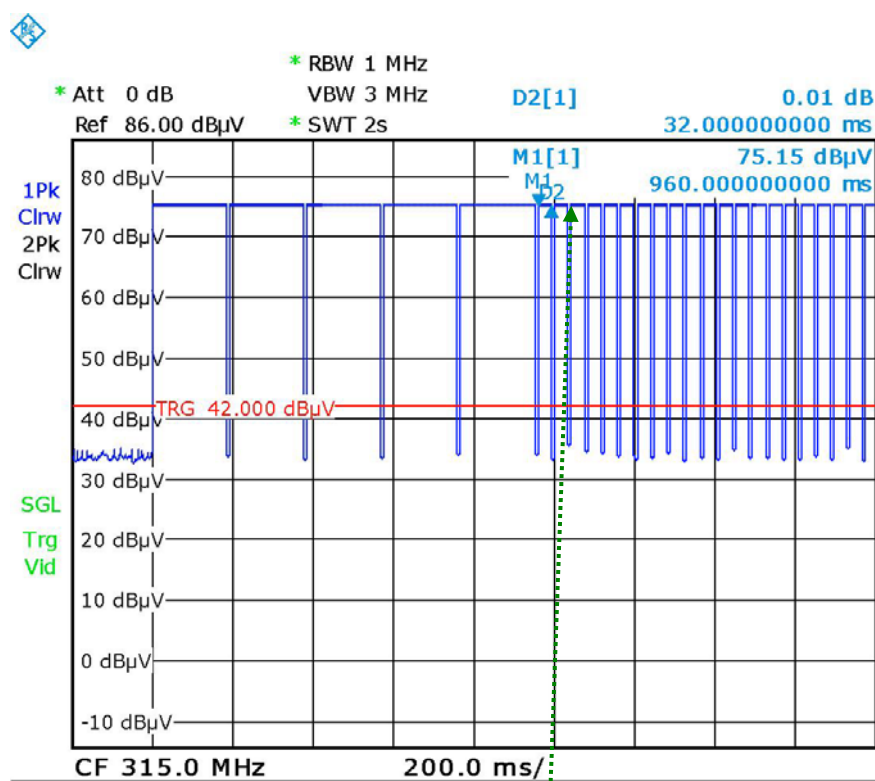


Averaging correction factor:

$$20\log (TX_{on}/100ms) =$$

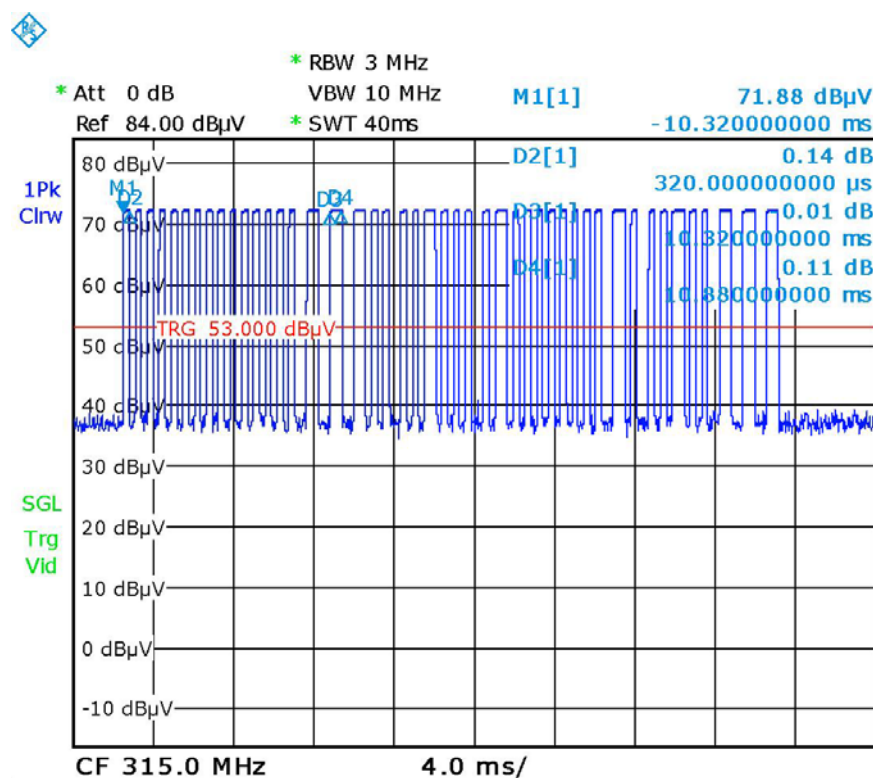
$$20\log (51ms/100ms) = -5.85 \text{ dB}$$

Short message

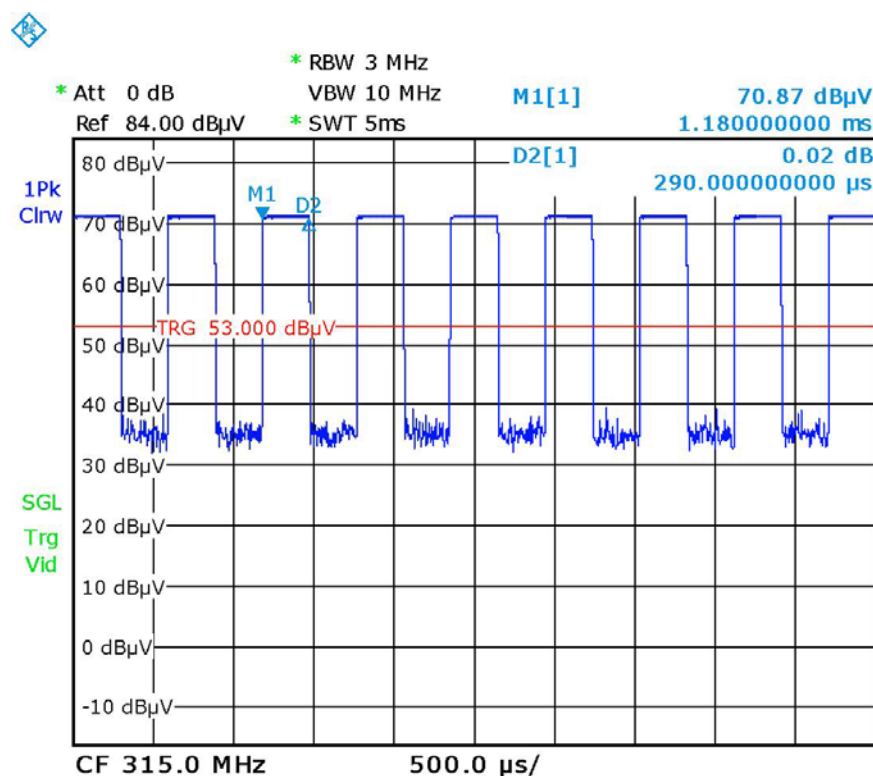


Short message = 32.6 ms

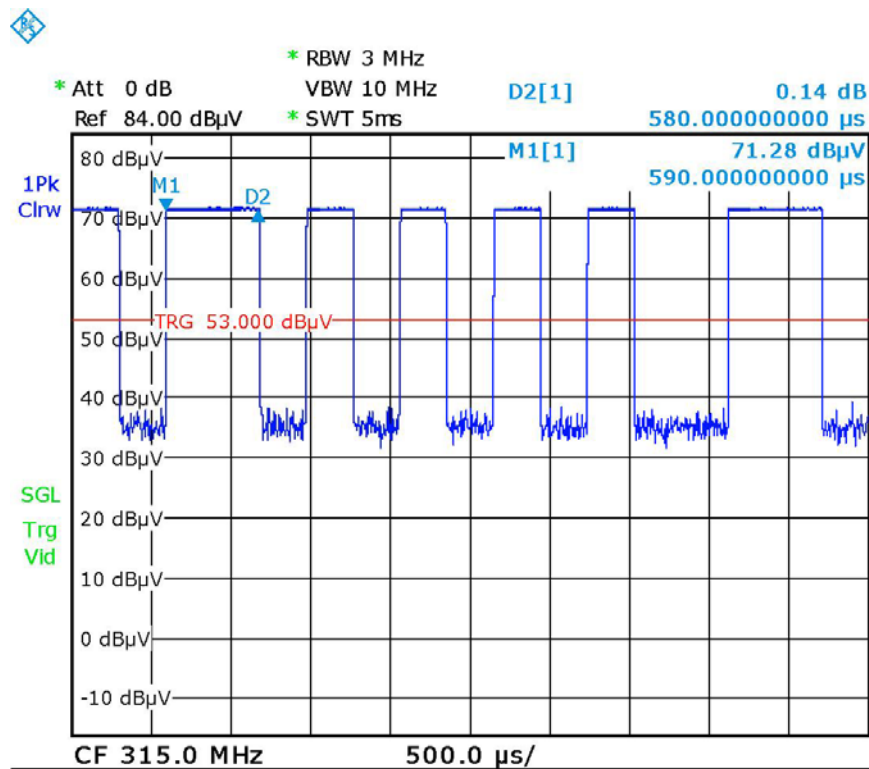
Short messages



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



Type 1 pulse = 290 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 * 580μs = 16.53 ms

Short message block 2 = 39 * Type 1 pulse + 9 * Type 2 pulse
= 39 * 290 μs + 9 * 580μs = 16.53 ms

Short message block 3 = 19 * Type 1 pulse + 4 * Type 2 pulse
= 39 * 290 μs + 9 * 580μs = 7.83 ms

Total transmission time = 40.89 ms

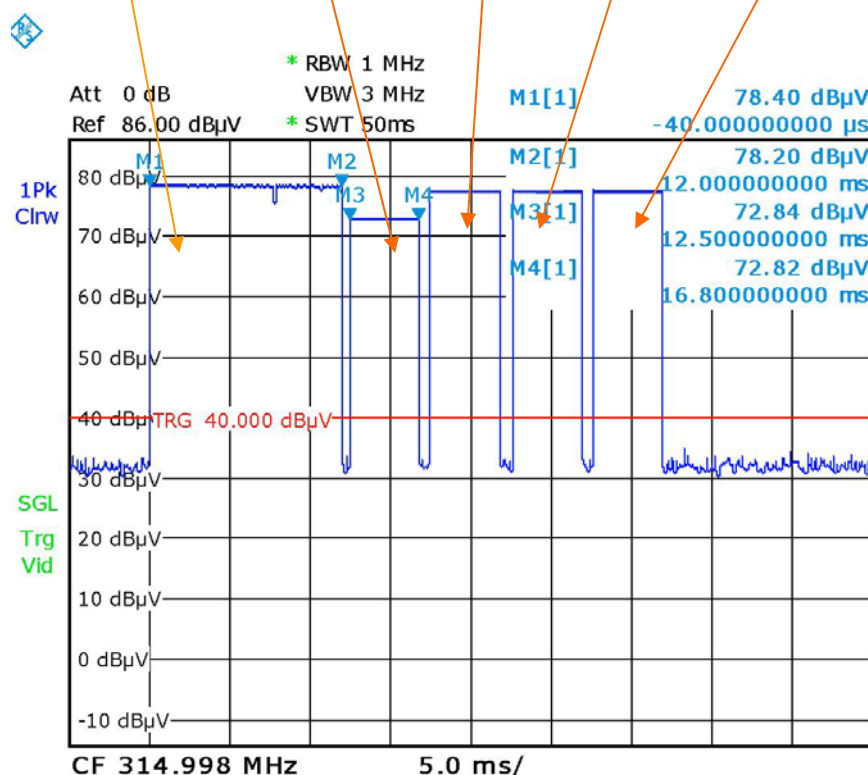
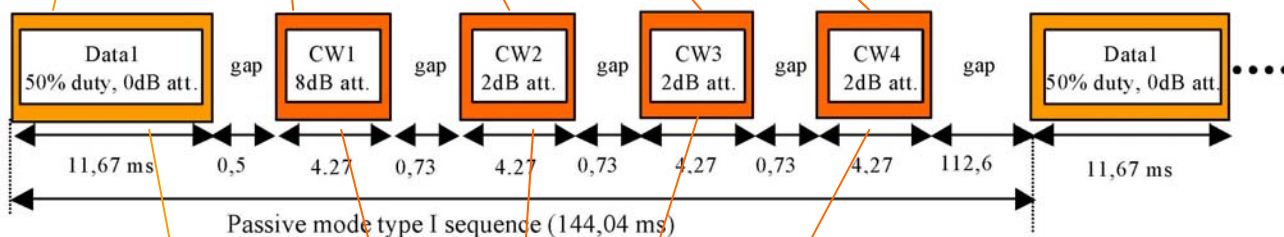
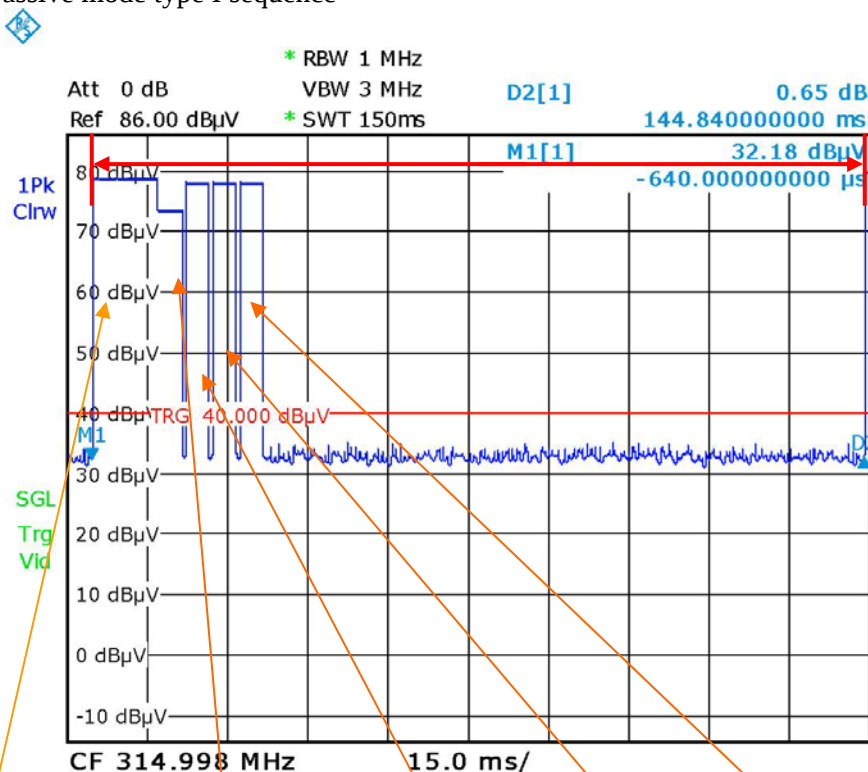
Averaging correction factor:

$$20\log (TX_{on}/100ms) =$$

$$20\log (40.9ms/100ms) = -7.76 \text{ dB}$$

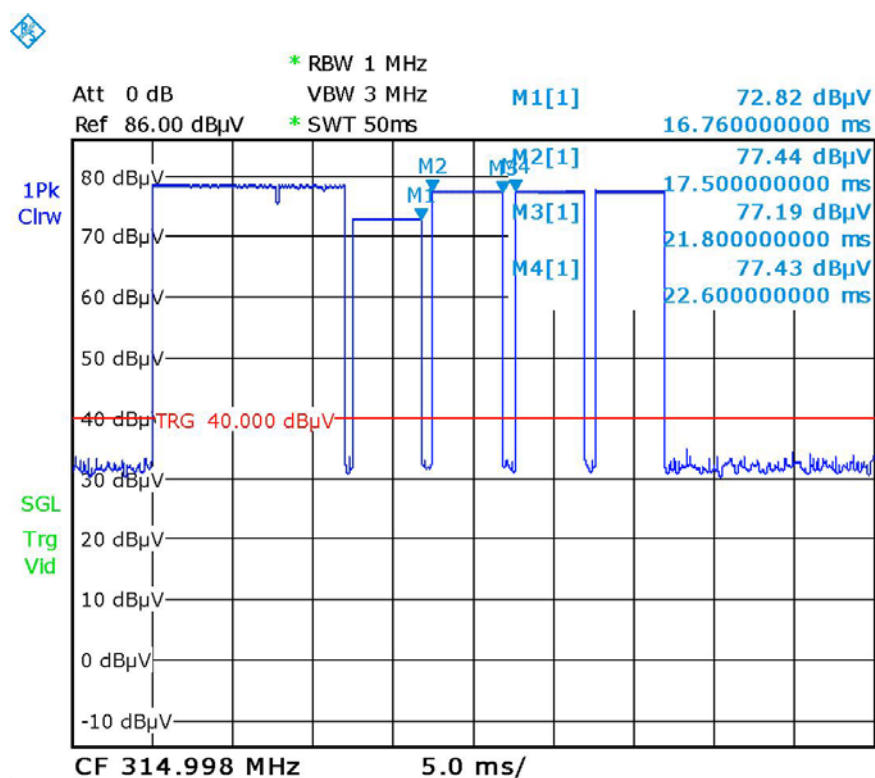
Transmission times (Passive entry / Passive start mode)

Passive mode type I sequence



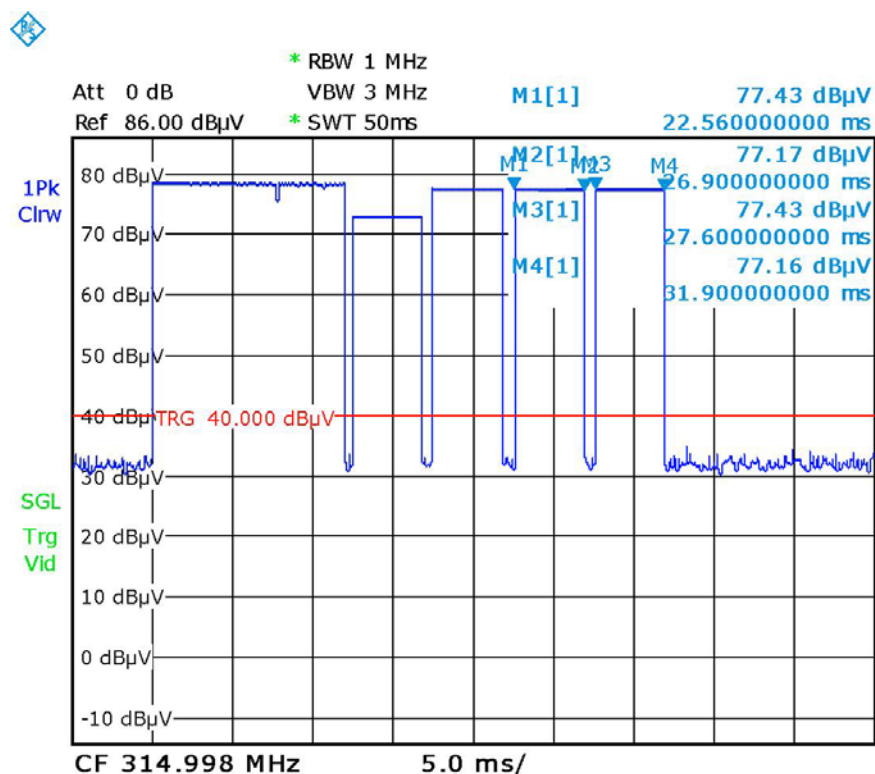
Transmission times:

Data 1 : 12.0 ms
CW 1 : 4.3ms



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

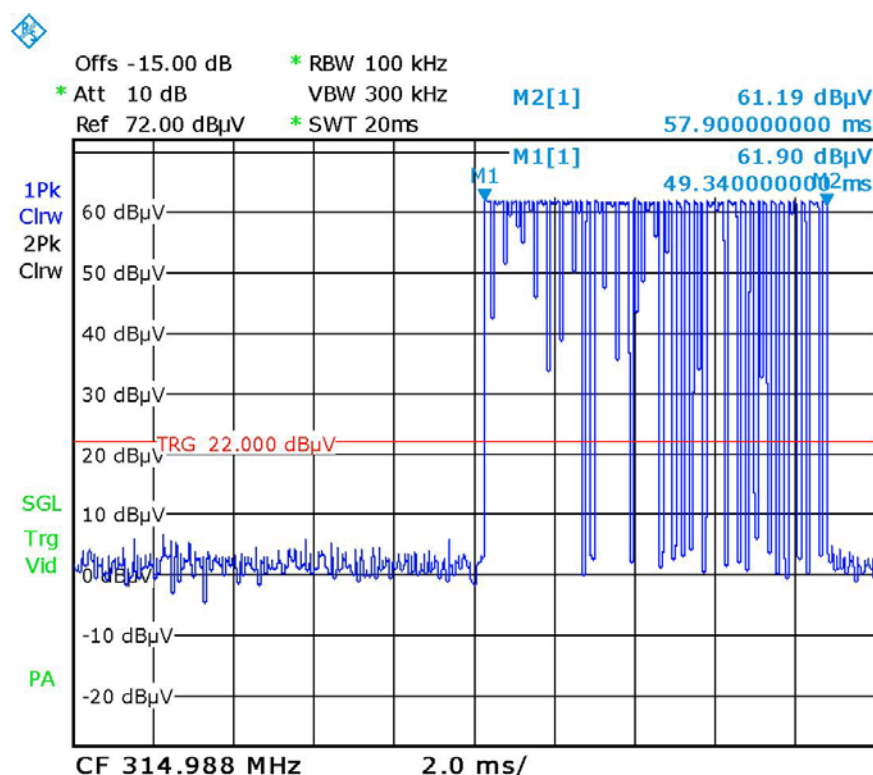
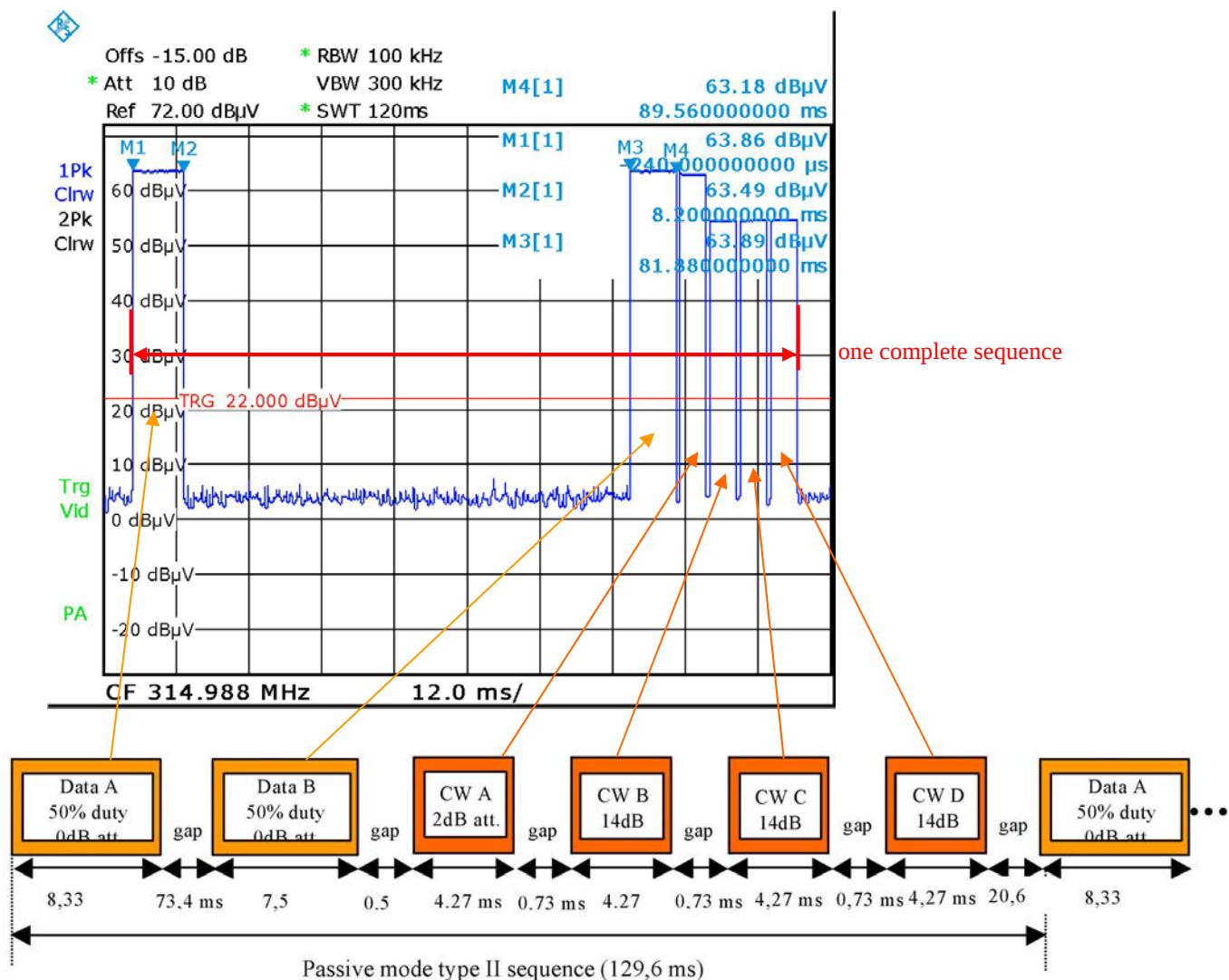
TX_{ON} = 29.2 ms

Averaging correction factor:

$$20\log(TX_{on}/100ms) =$$

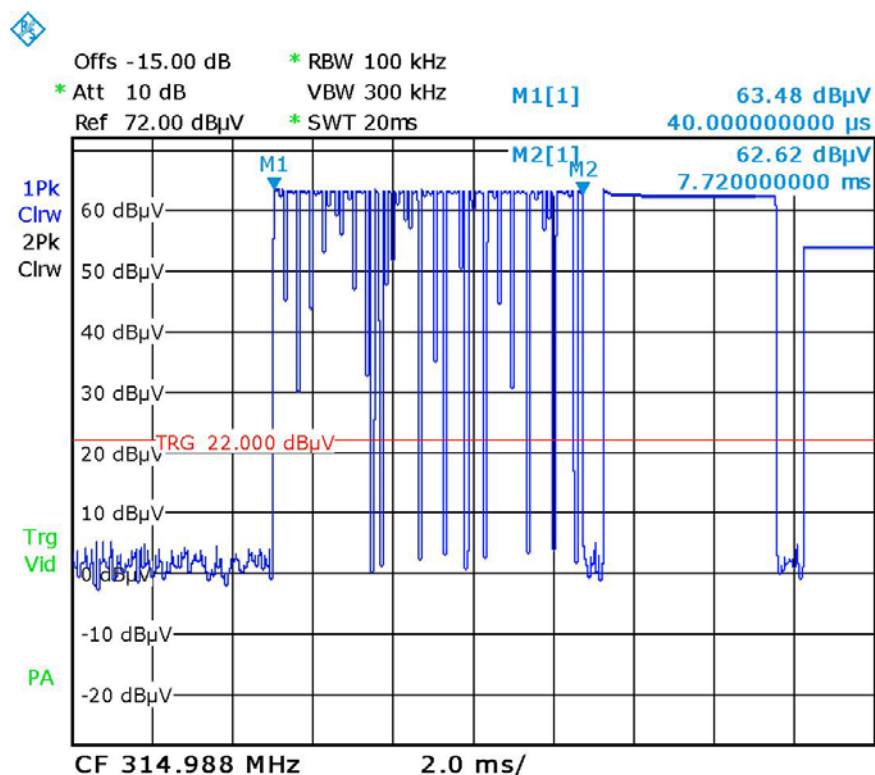
$$20\log(29.2ms/100ms) = -10.69 \text{ dB}$$

Passive mode type II sequence



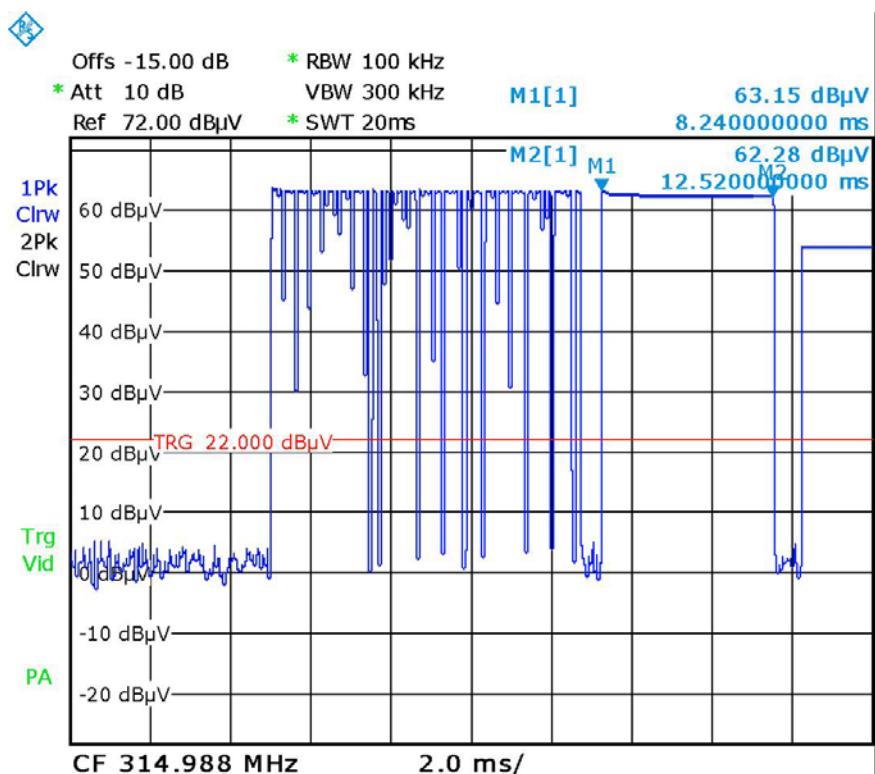
Transmission times:

Data A : 8.6 ms



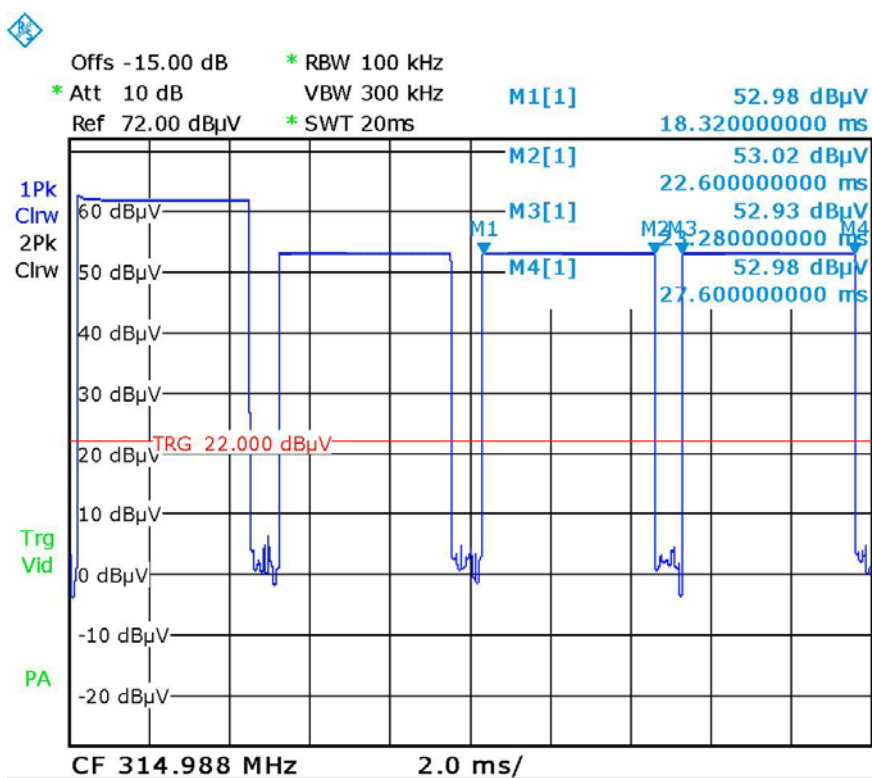
Transmission times:

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

TX_{ON} = 17.3 ms

Averaging correction factor:

$$20\log (TX_{on}/100ms) =$$

$$20\log (17.3ms/100ms) = -15.24 \text{ dB}$$

Worst case, Averaging correction factor:

$$20\log (TX_{on}/100ms) =$$

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