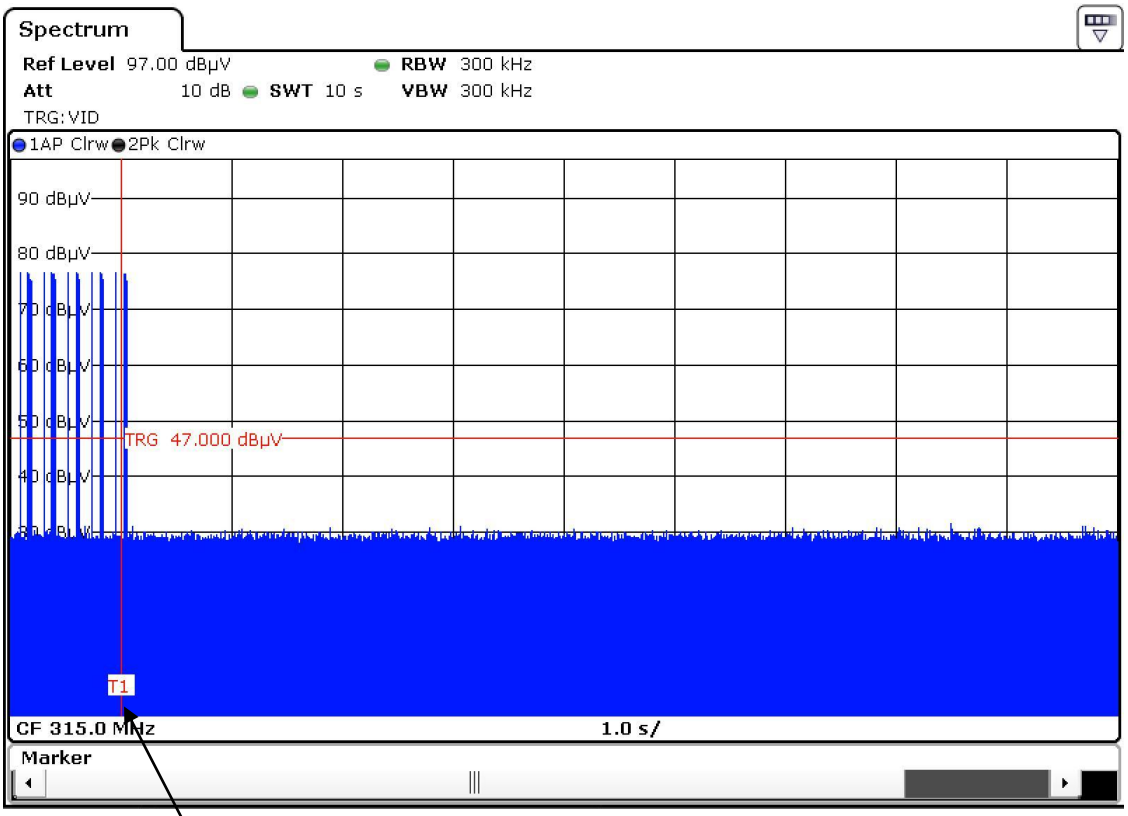
Annex no. 11

Periodic Operation Characteristics

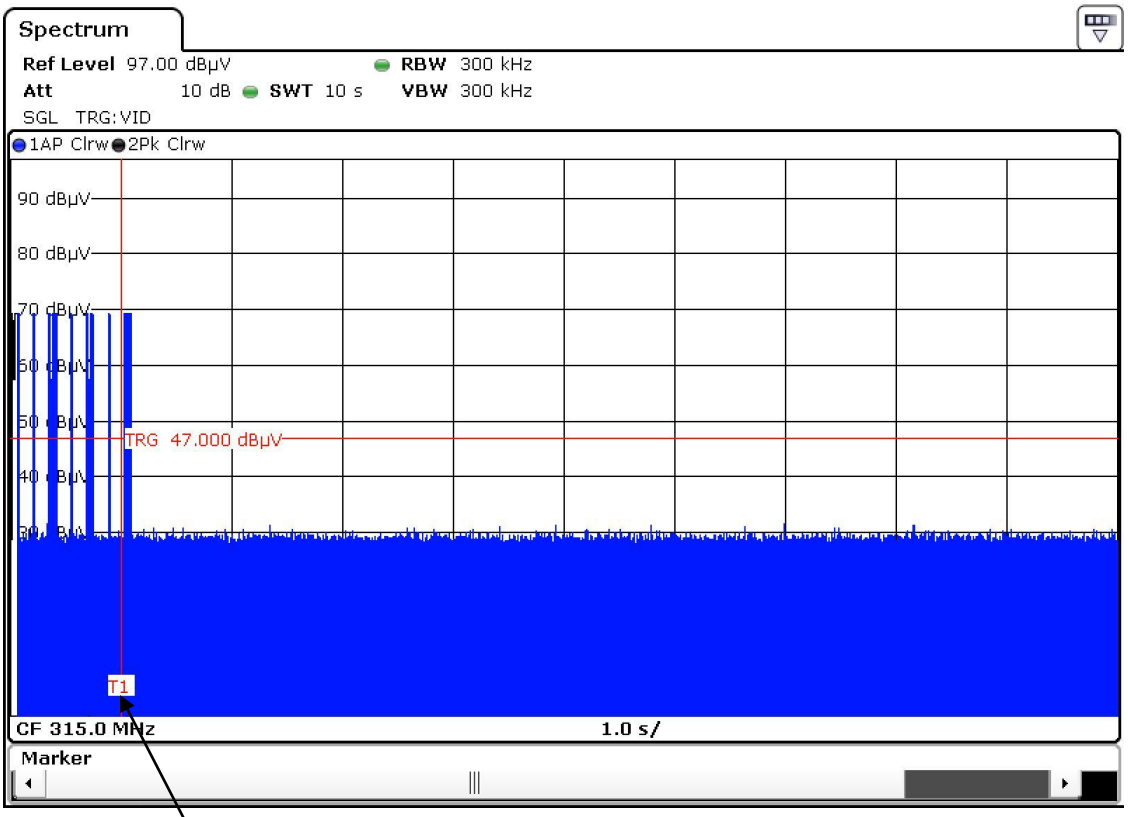
RSS-210 Section A1.1.1 (1) / FCC Section 15.231 (a)(1): A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

Transmission time
Open button



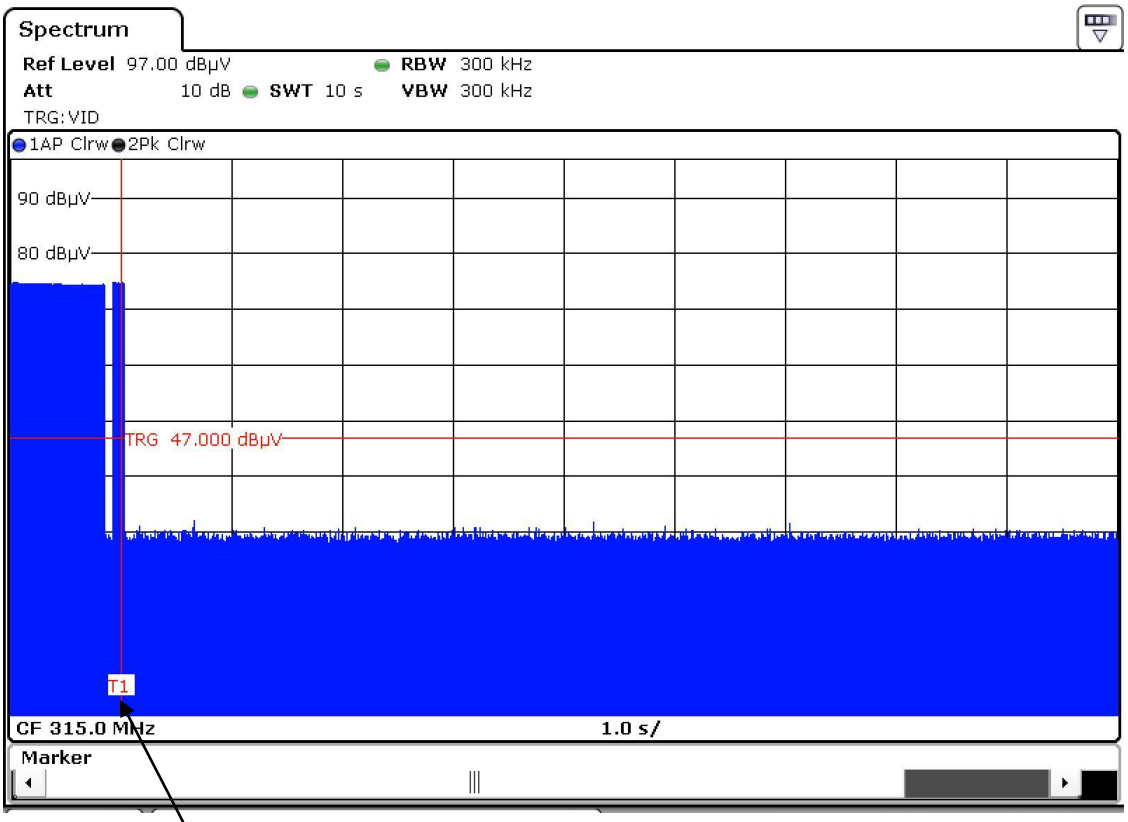
release point

Transmission time
Close button



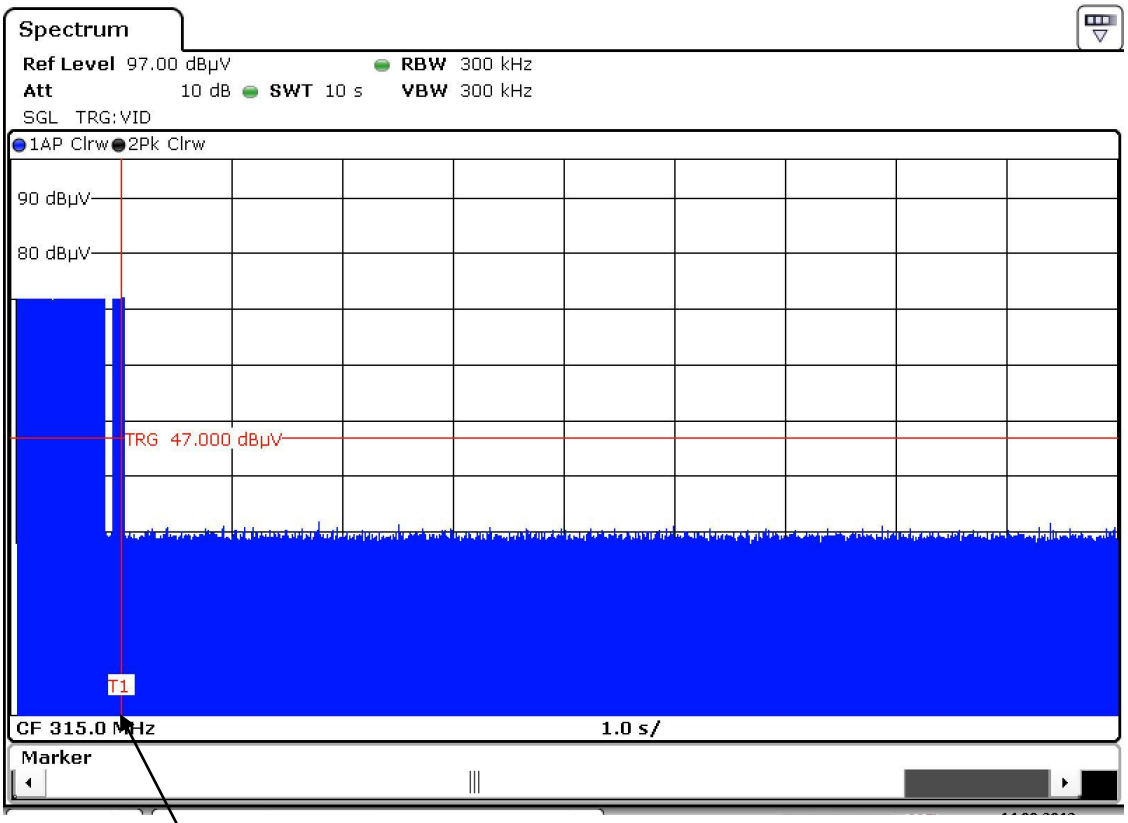
release point

Transmission time
Trunk button



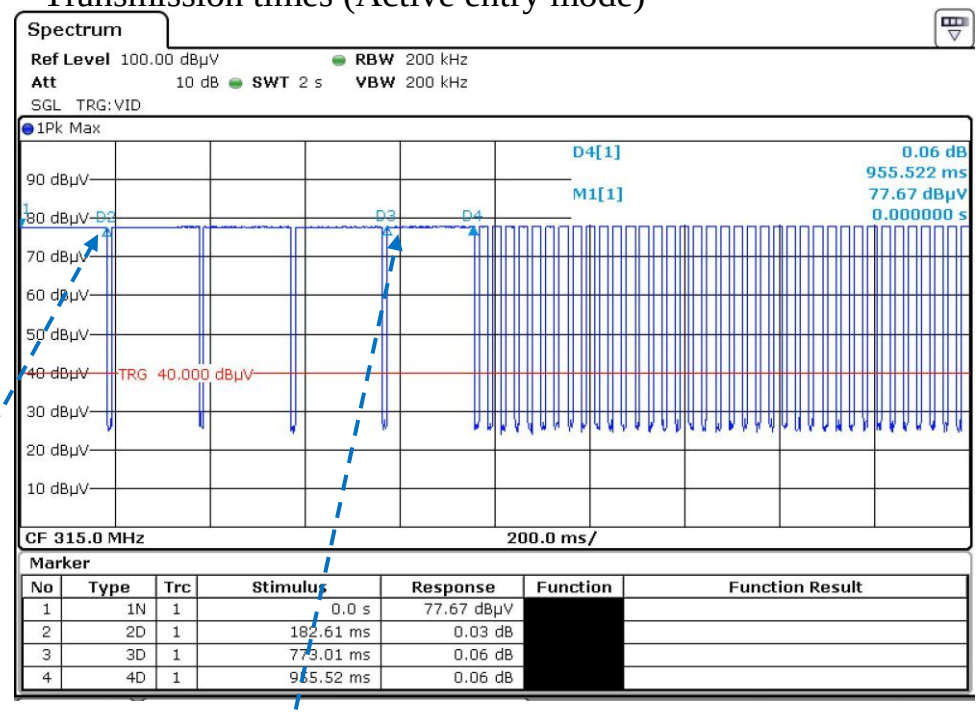
release point

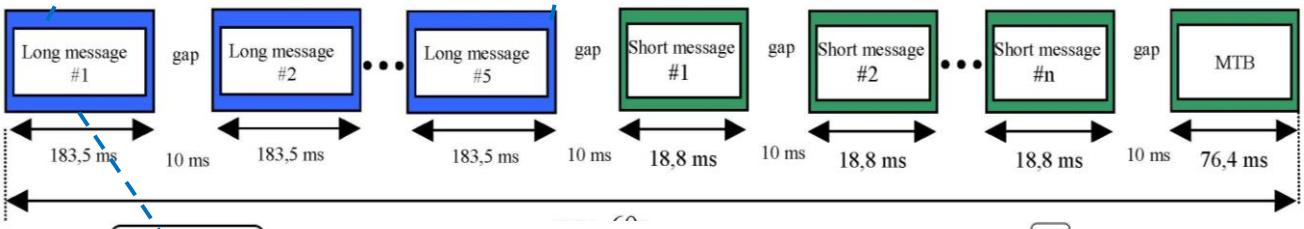
Transmission time
Panik button

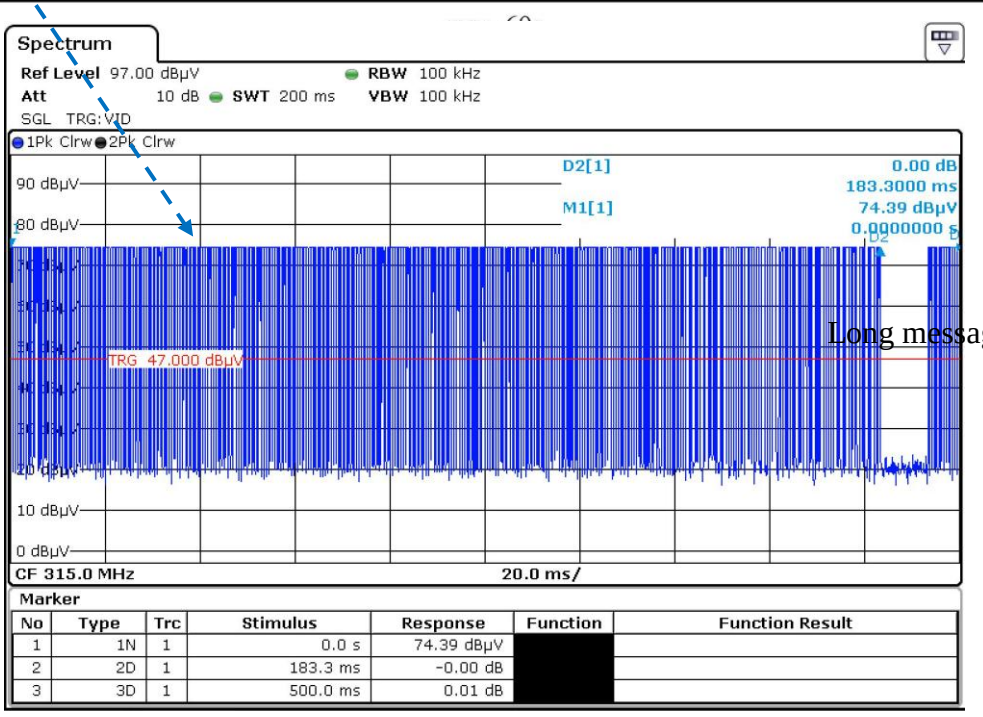


release point

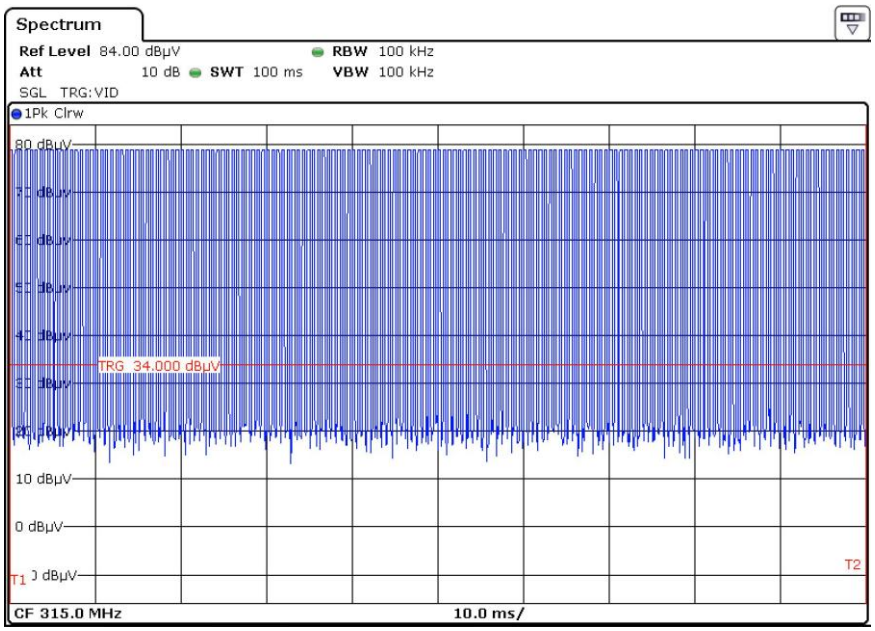
Transmission times (Active entry mode)



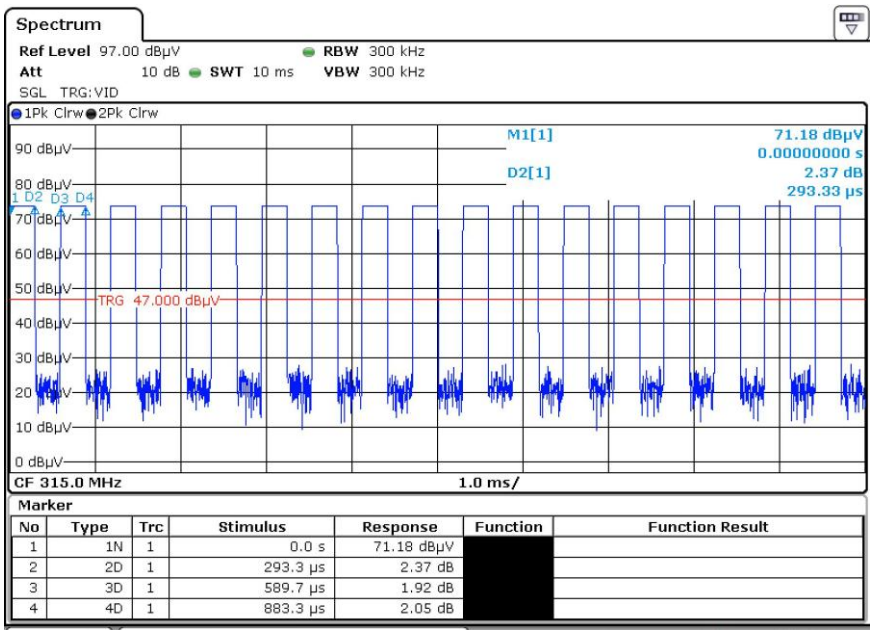




Long message = 183.3 ms



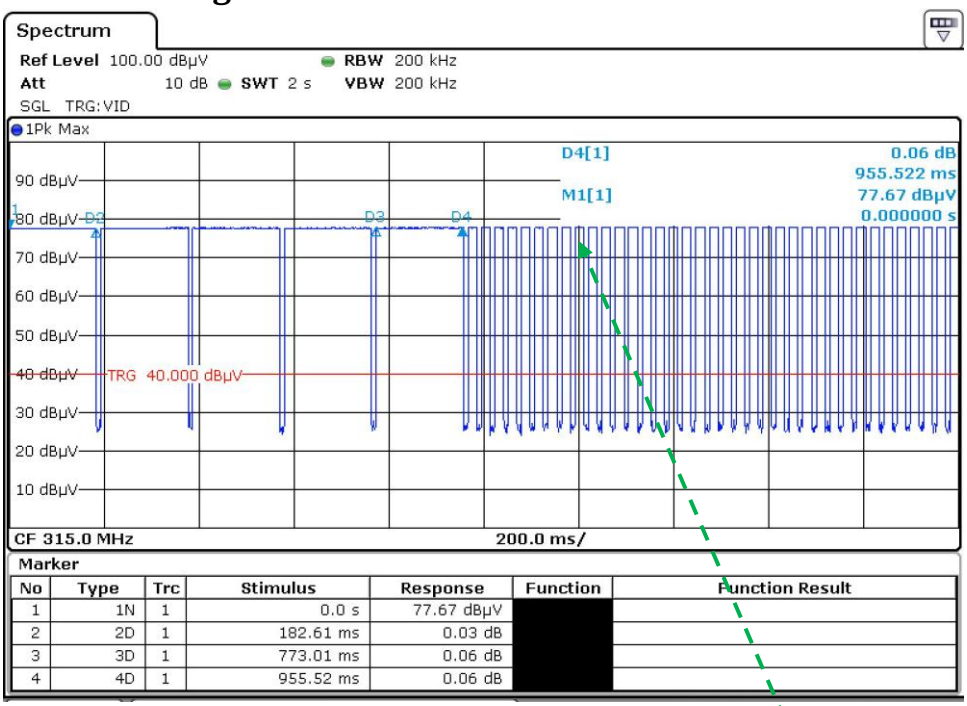
Long message = 183.3 ms
Single pulse = 293.33µs Ø
170 pulses a'293.33µs = 49.9 ms

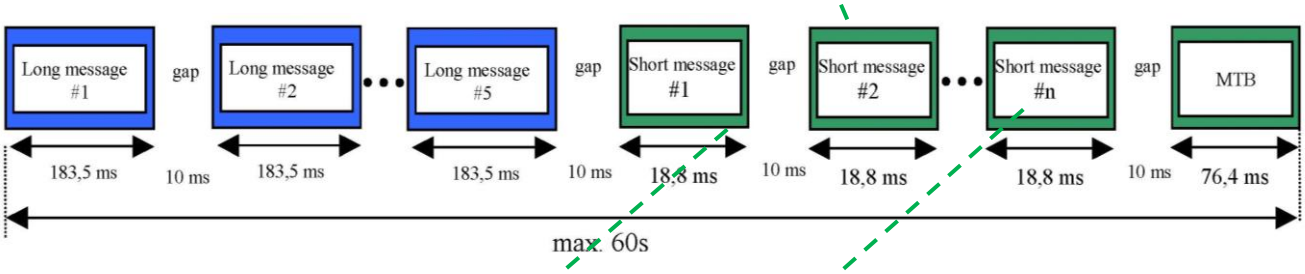


Averaging correction factor:

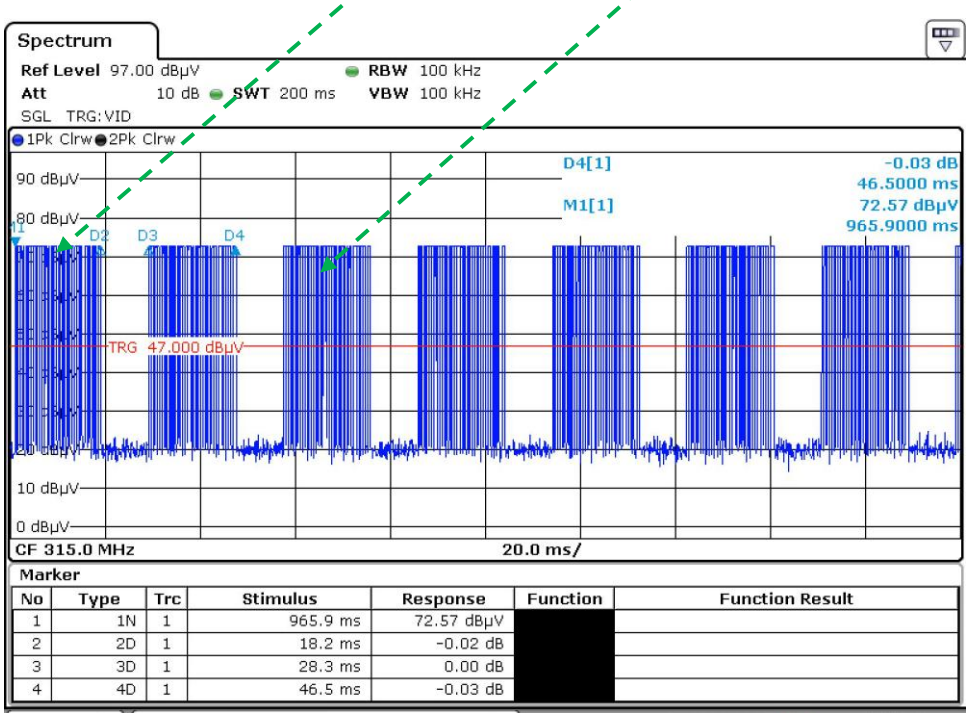
20log (TX_{on}/100ms) =
20log (49.9ms/100ms) = **-6.0 dB**

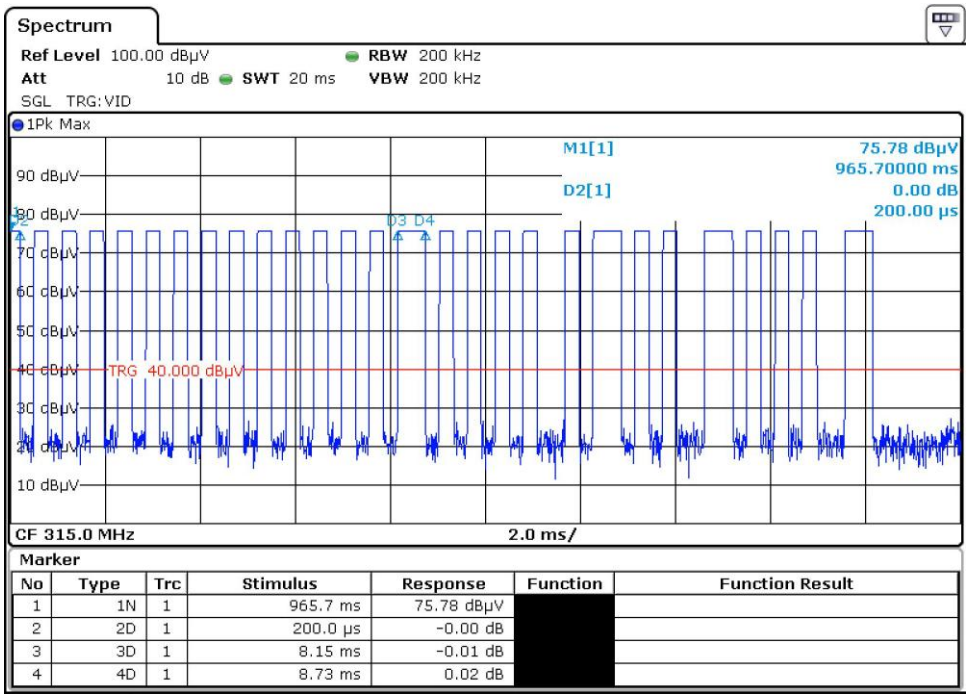
Short message





Short message = 33.0 ms





One short message
with
24 type 1 pulses
and
4 type 2 pulses

Type 1 pulse = 290 µs

Type 2 pulse = 580 µs

Worst case transmission time in a 100 ms periode:

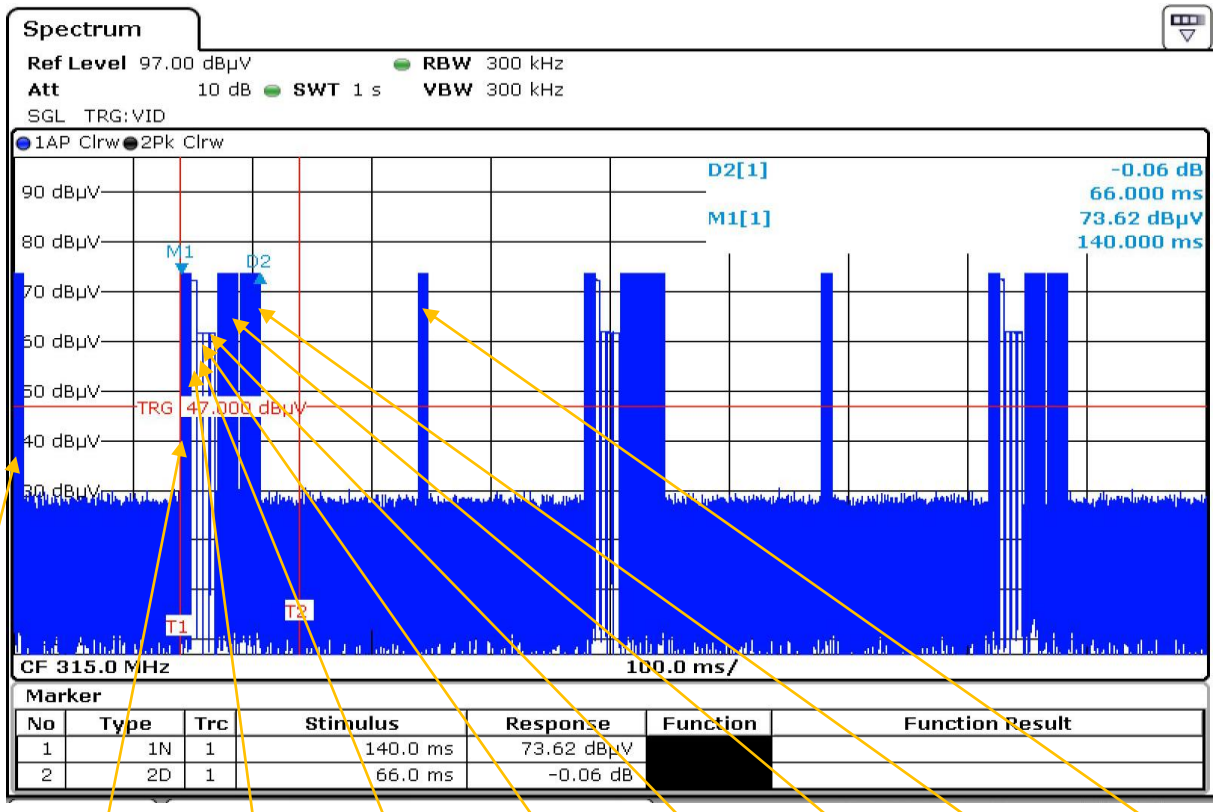
Short message block 1 = 24 * Type 1 pulse + 4 * Type 2 pulse
= 24 * 290 µs + 4 * 580µs = 9.28 ms
Short message block 2 = 24 * Type 1 pulse + 4 * Type 2 pulse
= 24 * 290 µs + 4 * 580µs = 9.28 ms
Short message block 3 = 24 * Type 1 pulse + 4 * Type 2 pulse
= 24 * 290 µs + 4 * 580µs = 9.28 ms
Short message block 4 = 21 * Type 1 pulse + 3 * Type 2 pulse
= 21 * 290 µs + 3 * 580µs = 7.83 ms

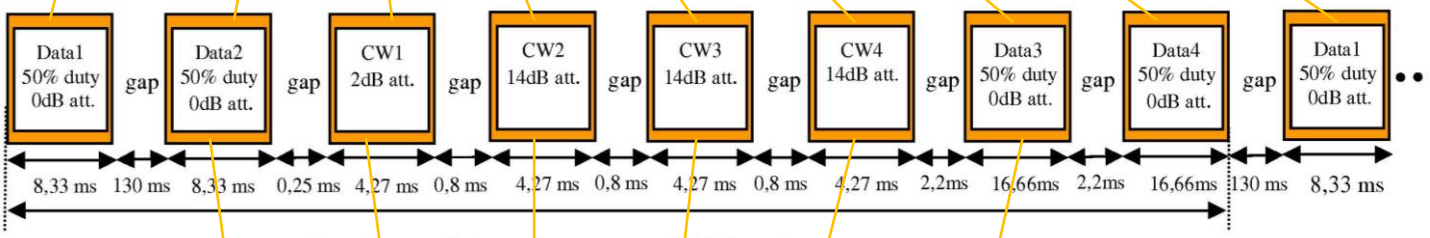
Total transmission time = 35.67 ms

Averaging correction factor:
$20\log(TX_{on}/100ms) = 20\log(35.67ms/100ms) = -8.95$ dB

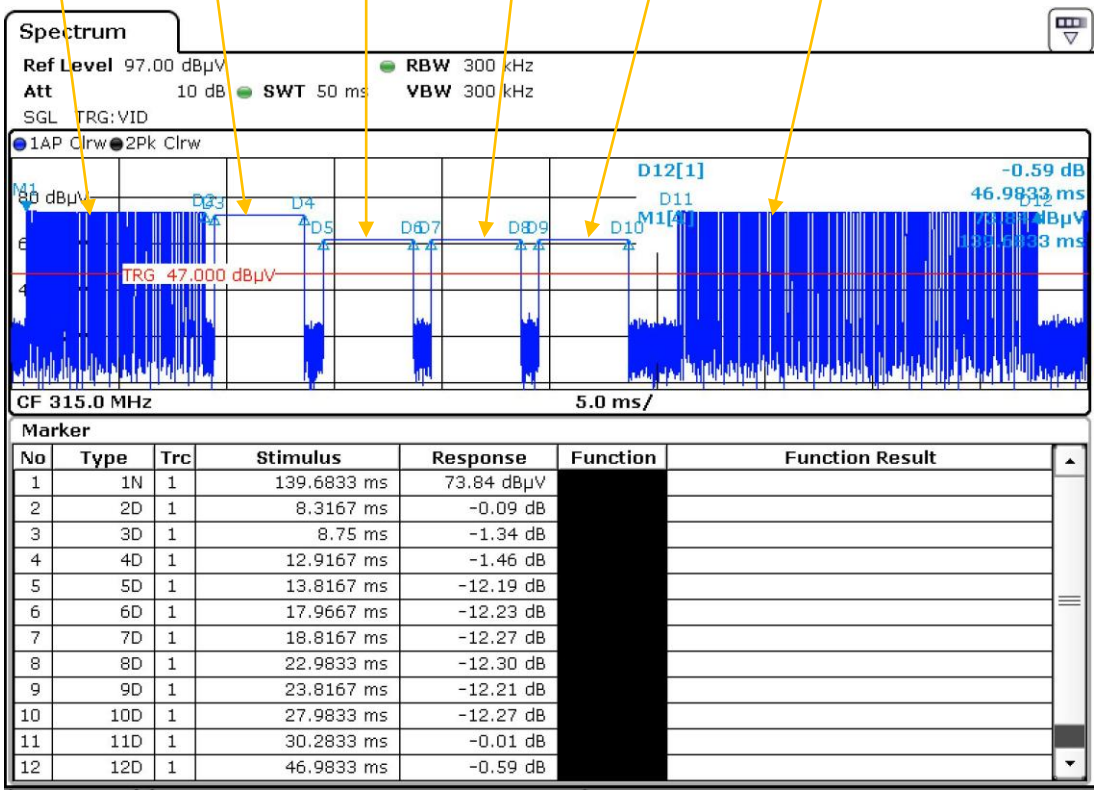
Transmission times (Passive entry / Passive start mode)

Passive mode type I sequence

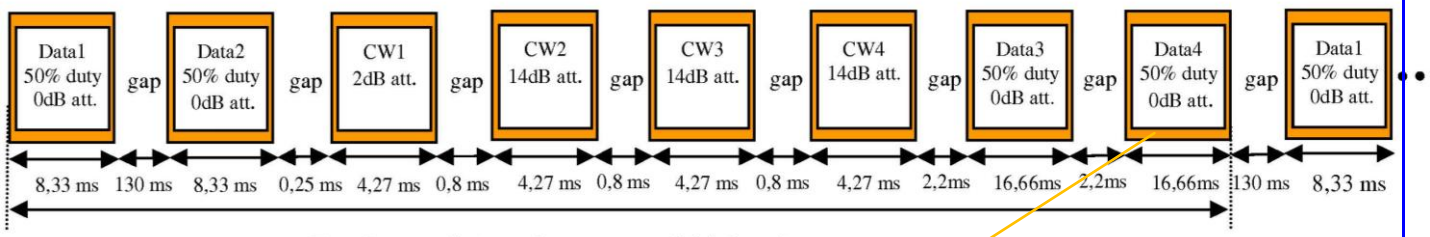




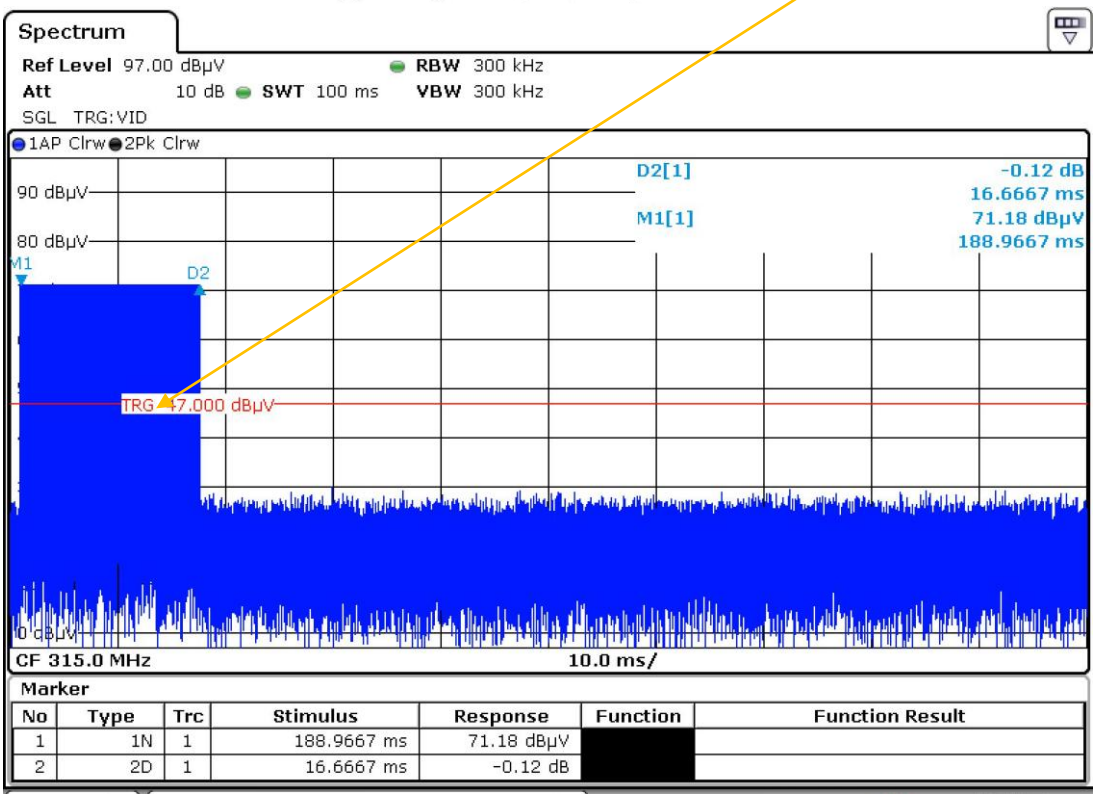
Passive mode type I sequence (204,1 ms)



Transmission times (Passive entry / Passive start mode)
Passive mode type I sequence



Passive mode type I sequence (204,1 ms)



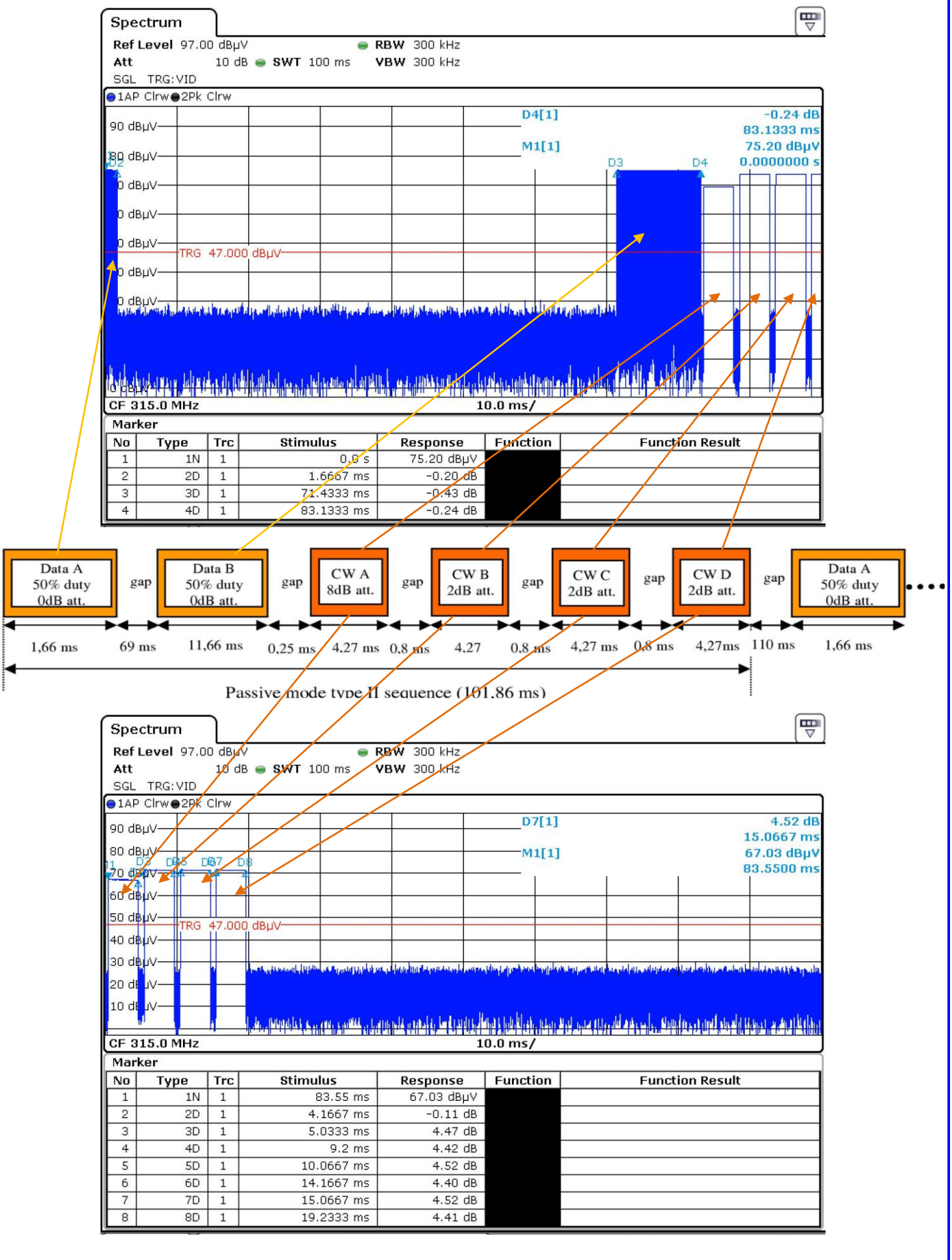
Worst case transmission time in a 100 ms periode:

Pulse train Data2 = 4.159 ms
Pulse train CW1 = 4.167 ms
Pulse train CW2 = 4.150 ms
Pulse train CW3 = 4.167 ms
Pulse train CW4 = 4.167 ms
Pulse train Data3 = 8.350 ms
Pulse train Data4 = 8.334 ms

Total transmission time = 37.494 ms

Averaging correction factor:
20log (TX_{on}/100ms) = 20log (37.494ms/100ms) = -8.52 dB

Passive mode type II sequence



Worst case transmission time in a 100 ms periode:

Pulse train Data B = 5.850 ms
Pulse train CW A = 4.167 ms
Pulse train CW B = 4.167 ms
Pulse train CW C = 4.100 ms
Pulse train CW D = 4.167 ms

Total transmission time = 22.451 ms

Averaging correction factor:
20log (TX_{on}/100ms) = 20log (22.451ms/100ms) = -12.98 dB

Worst case, Averaging correction factor:

20log (TX_{on}/100ms) = 20log (49.9ms/100ms) = -6.0 dB

All buttons send the same output power and use the same message format. The only difference is the sequence of individual pulses.