

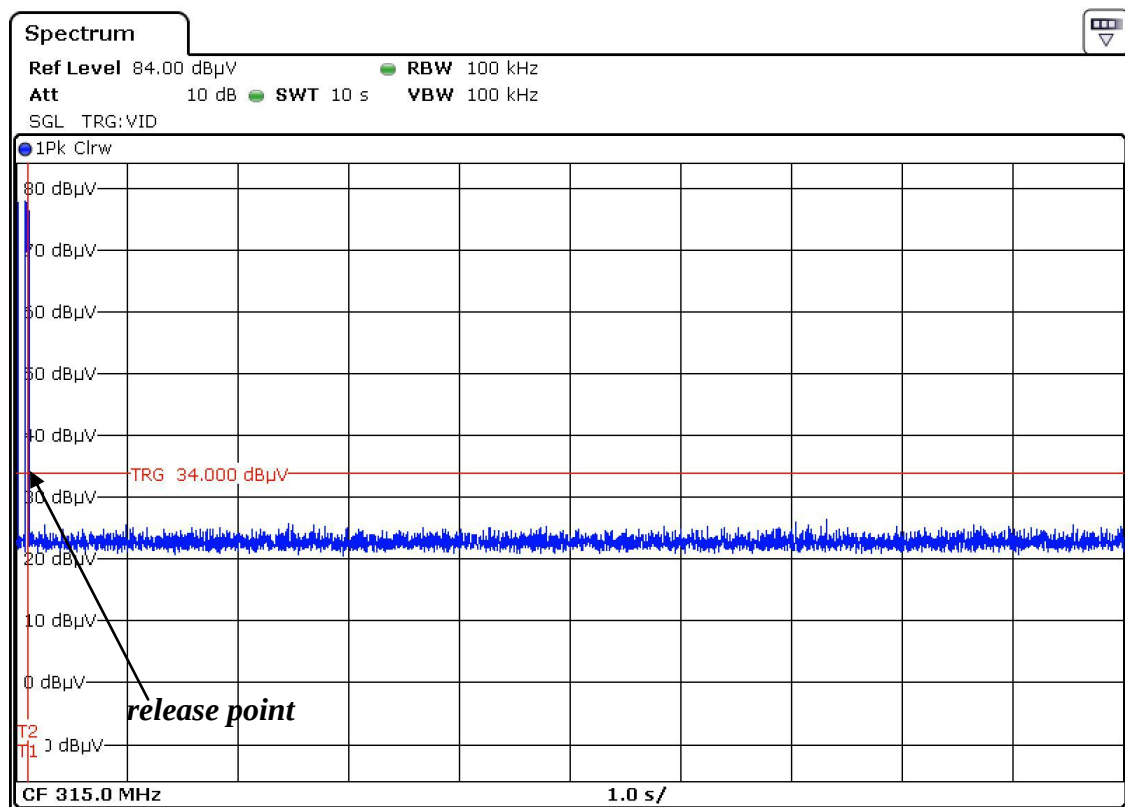
Annex no. 11

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.

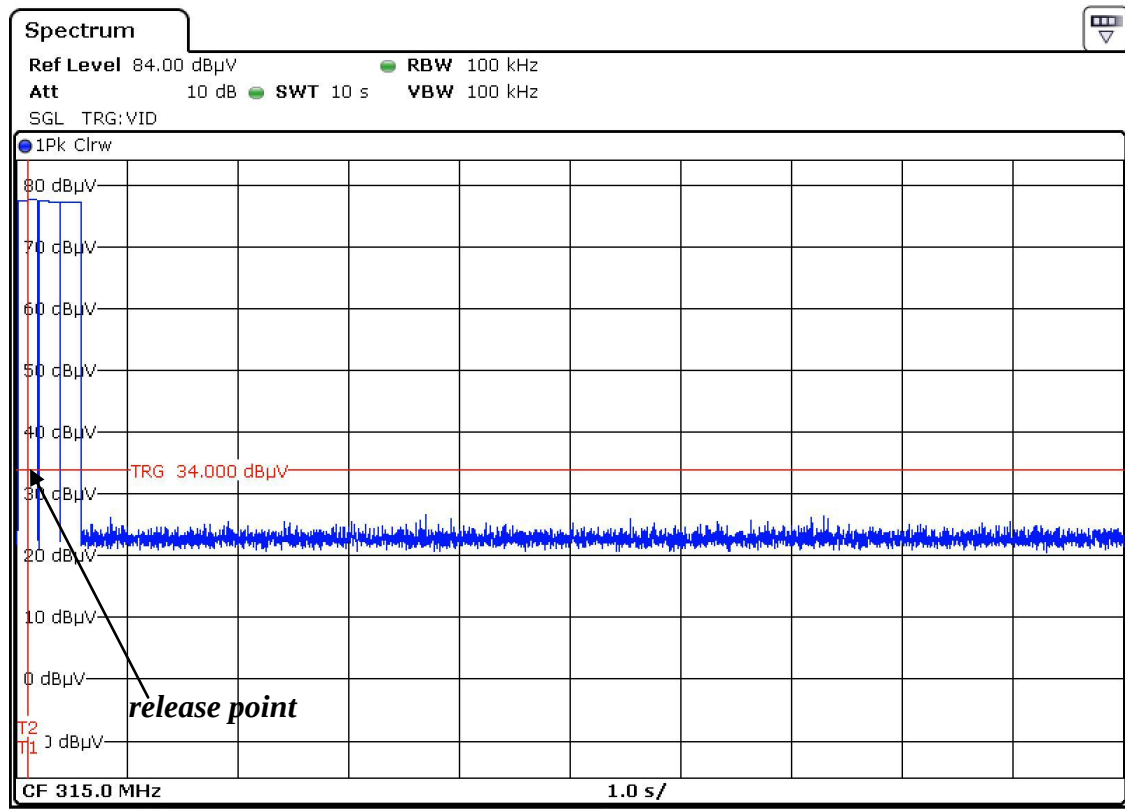
Transmission time

Open button



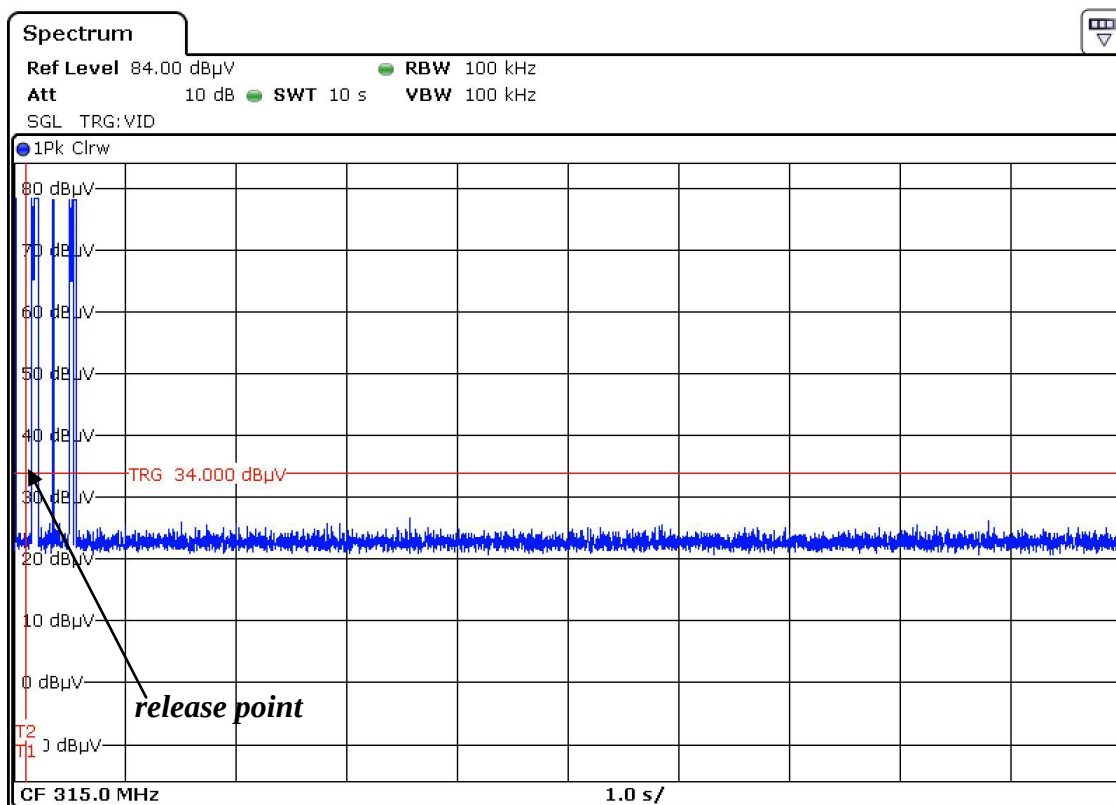
Transmission time

Close button

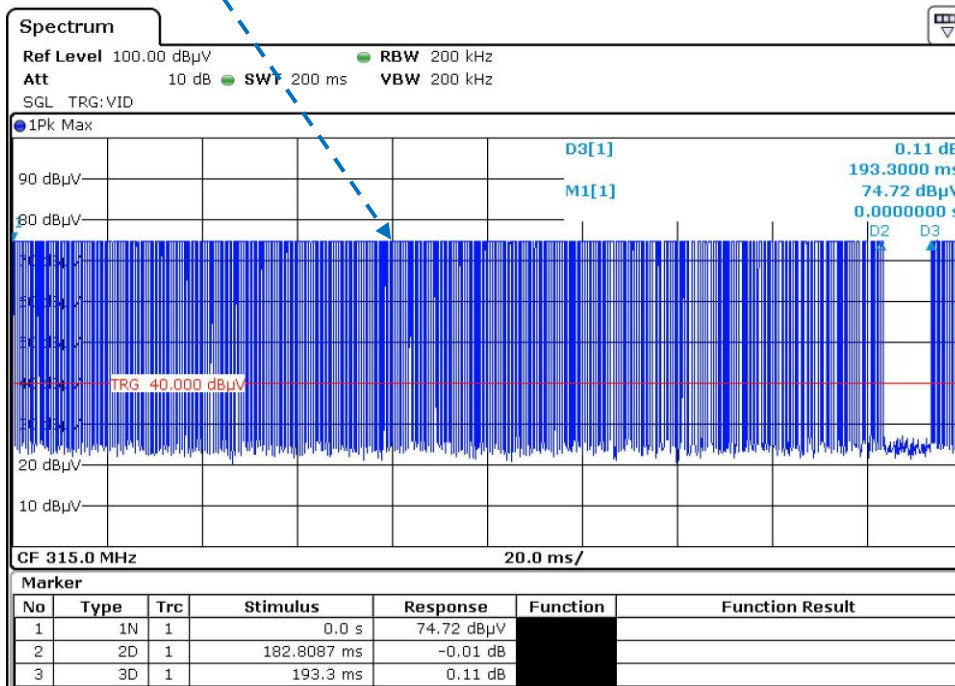
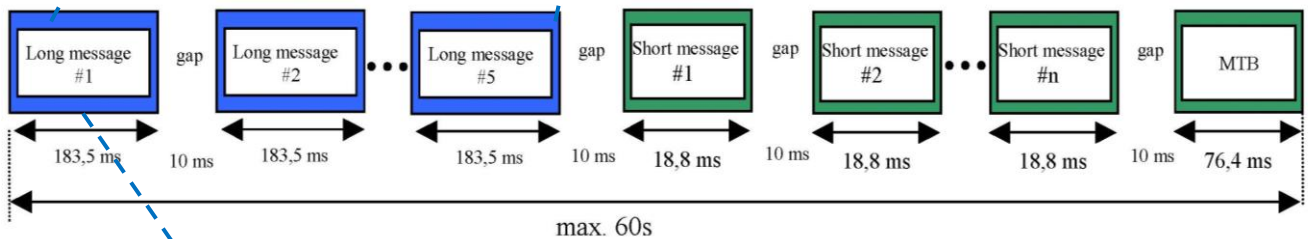
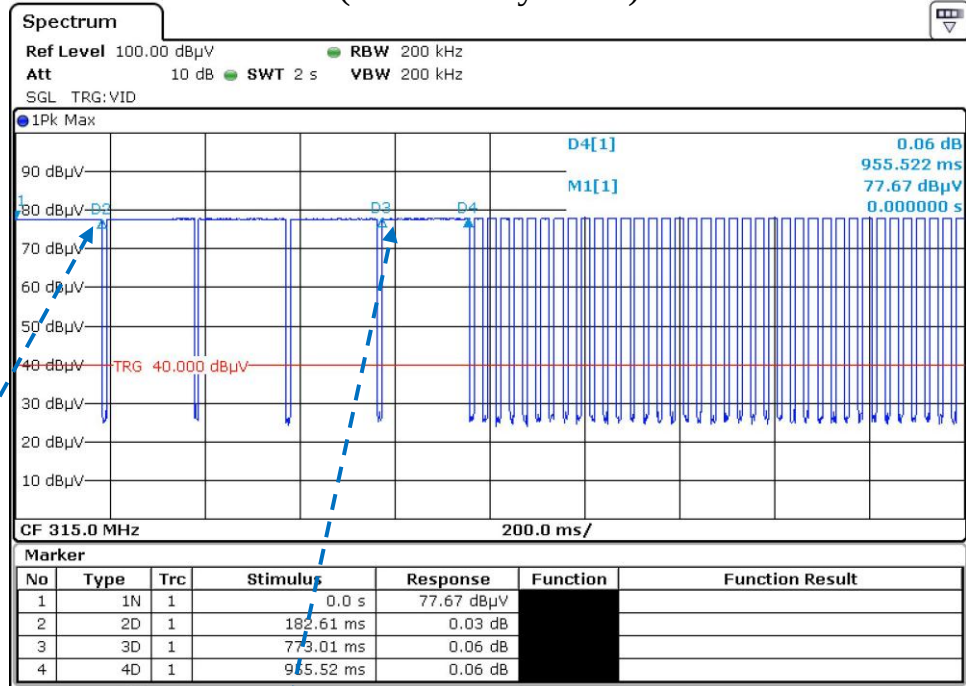


Transmission time

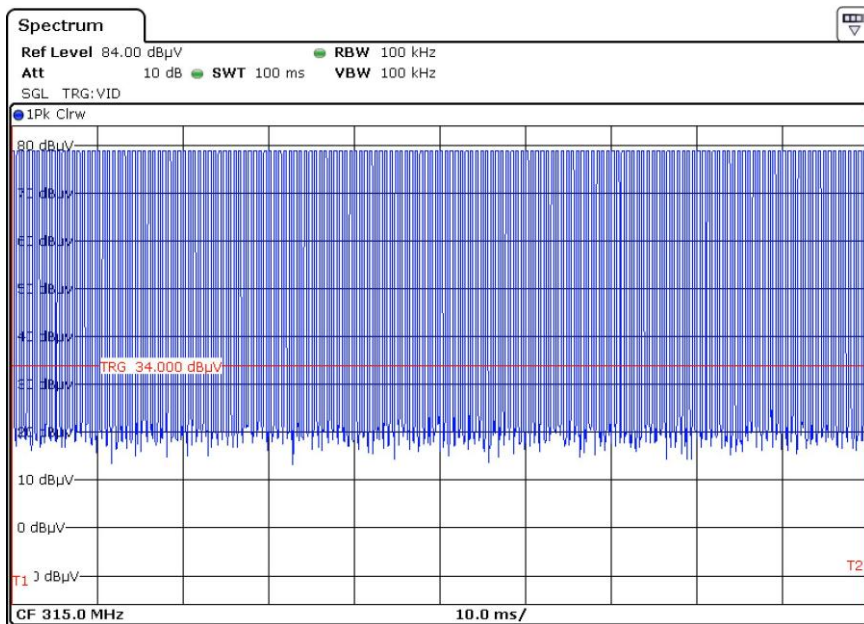
Trunk button



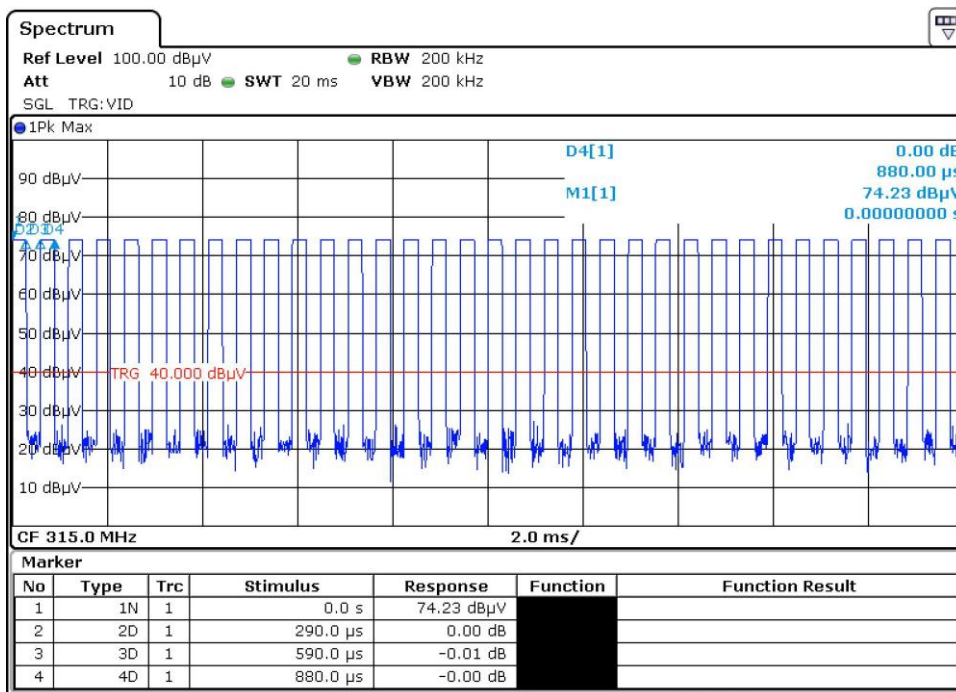
Transmission times (Active entry mode)



Long message = 182.81 ms



Long message = 182.81 ms
Single pulse = 290µs Ø
172 pulses a' 290µs = 49.9 ms

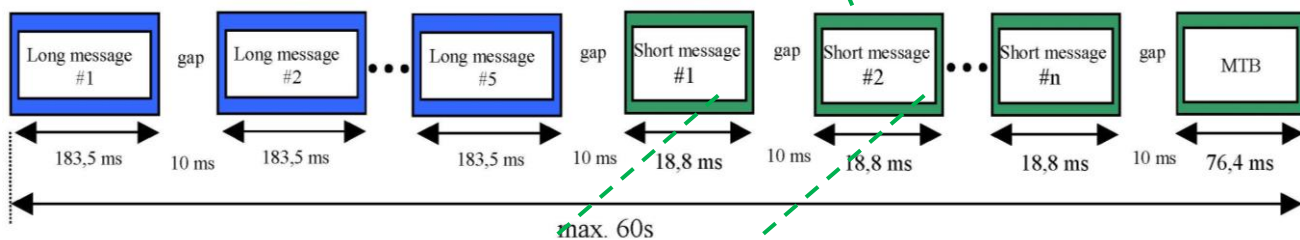
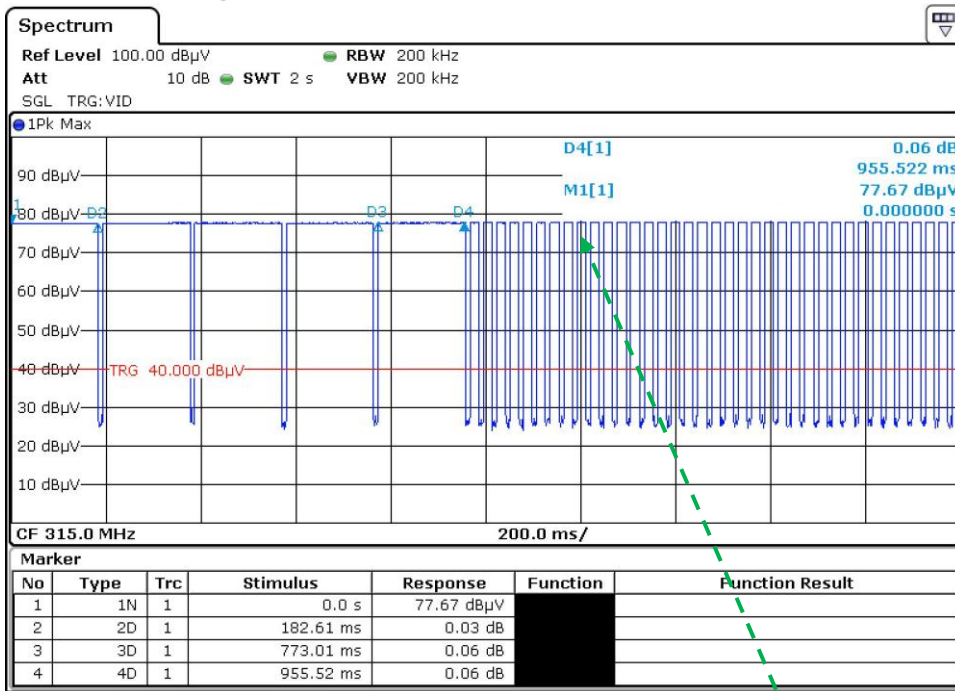


Averaging correction factor:

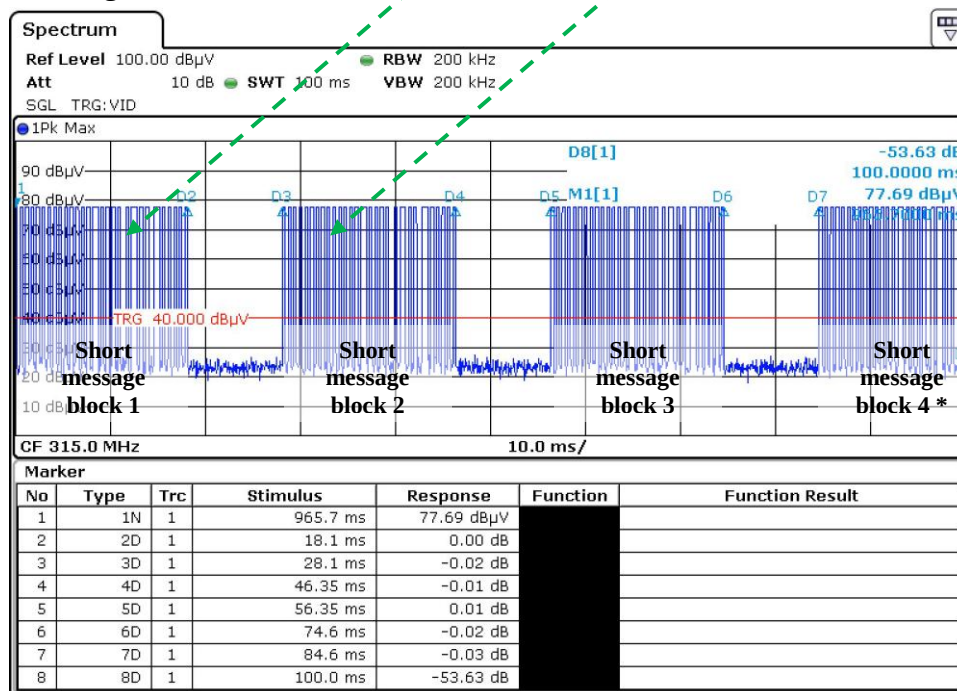
$$20\log (TX_{on}/100ms) =$$

$$20\log (49.9ms/100ms) = -6.0 \text{ dB}$$

Short message

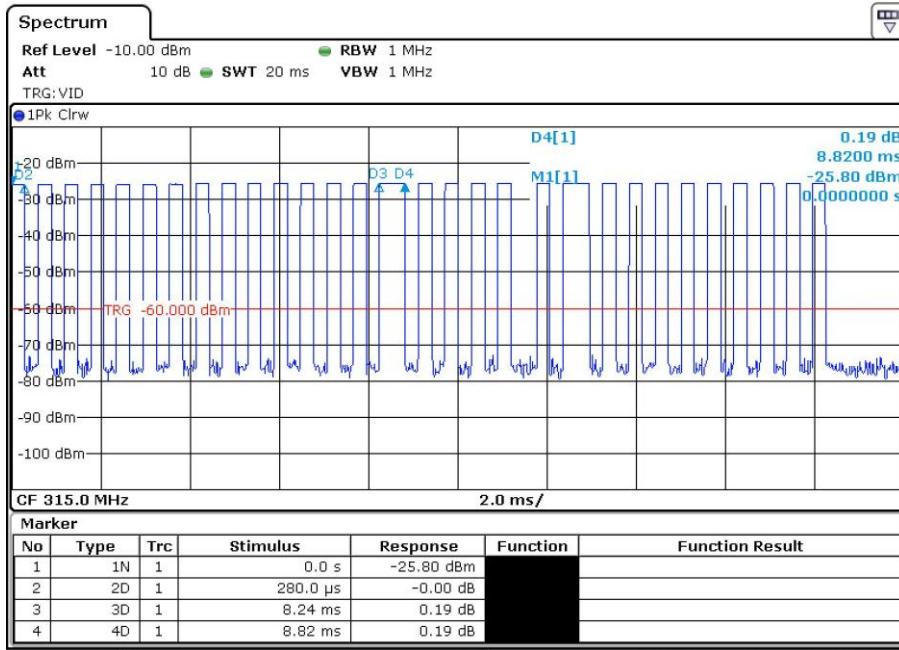


Short message = 33.0 ms



* "Short message block 4" is not complete in the 100 ms time interval. See next page for calculations!

Worst case emission for one "Short message block"



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

Type 1 pulse = 280 µs

Type 2 pulse = 580 µs

Worst case transmission time in a 100 ms periode:

Short message block 1 = 27 * Type 1 pulse + 2 * Type 2 pulse
= 27 * 280 µs + 2 * 580µs = 8.72 ms

Short message block 2 = 27 * Type 1 pulse + 2 * Type 2 pulse
= 27 * 280 µs + 2 * 580µs = 8.72 ms

Short message block 3 = 27 * Type 1 pulse + 2 * Type 2 pulse
= 27 * 280 µs + 2 * 580µs = 8.72 ms

Short message block 4 = 22 * Type 1 pulse + 3 * Type 2 pulse
= 22 * 280 µs + 2 * 580µs = 7.32 ms

Total transmission time = 34.74 ms

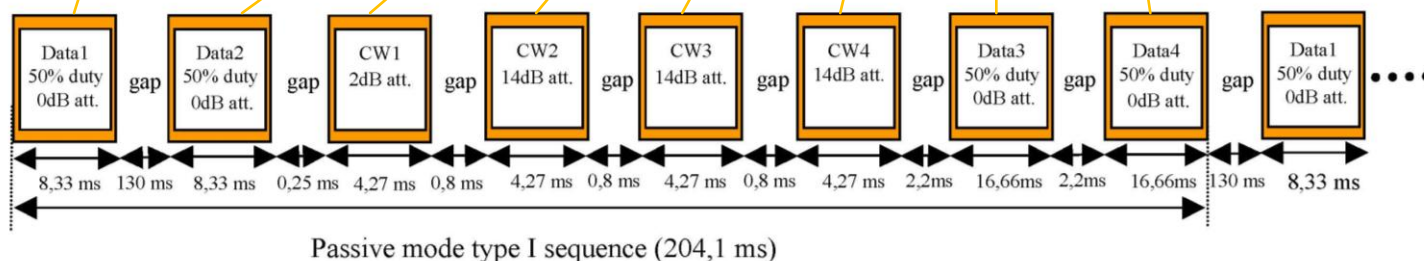
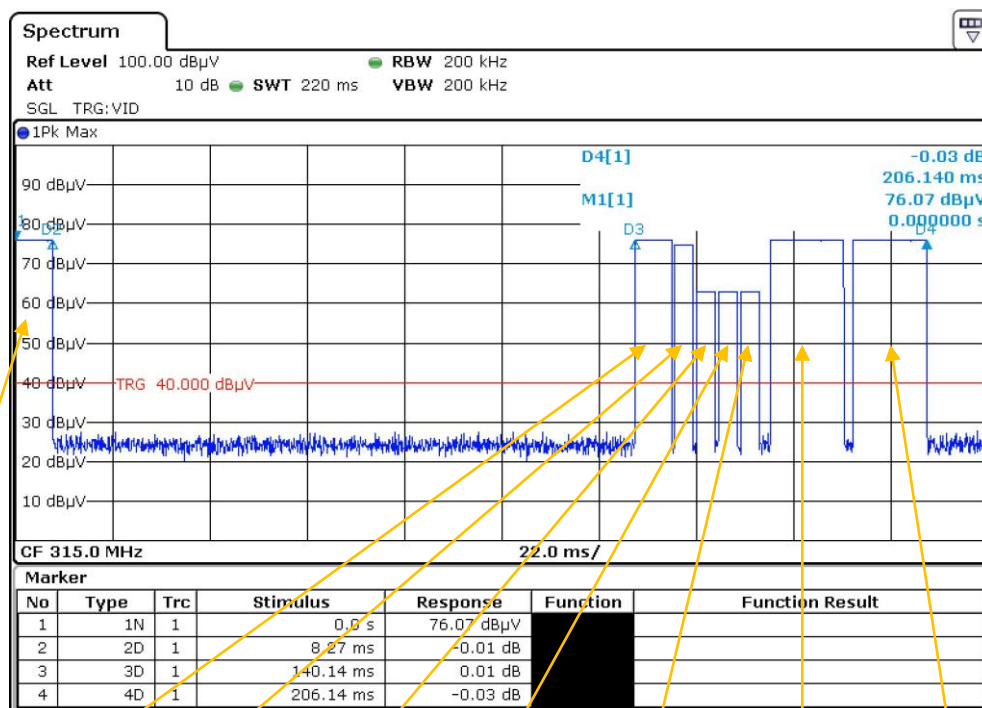
Averaging correction factor:

$20\log (TX_{on}/100ms) = 20\log (33.48ms/100ms) = -9.50 \text{ dB}$

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

Transmission times (Passive entry / Passive start mode)

Passive mode type I sequence (Passive entry)



Worst case transmission time in a 100 ms periode:

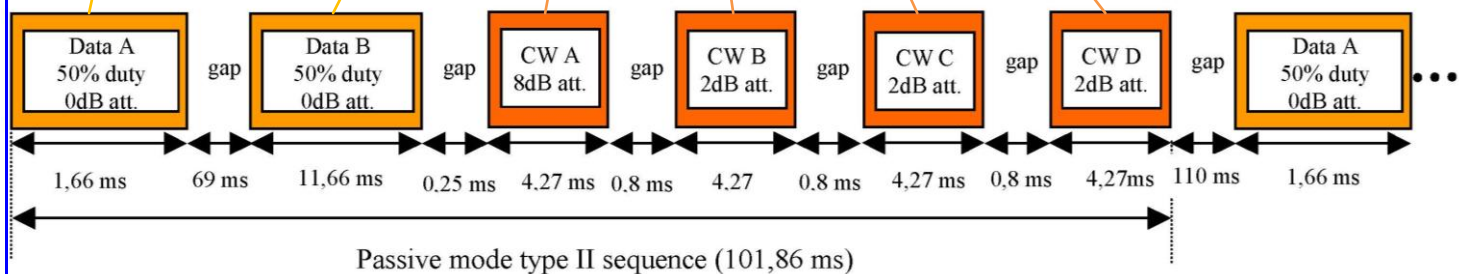
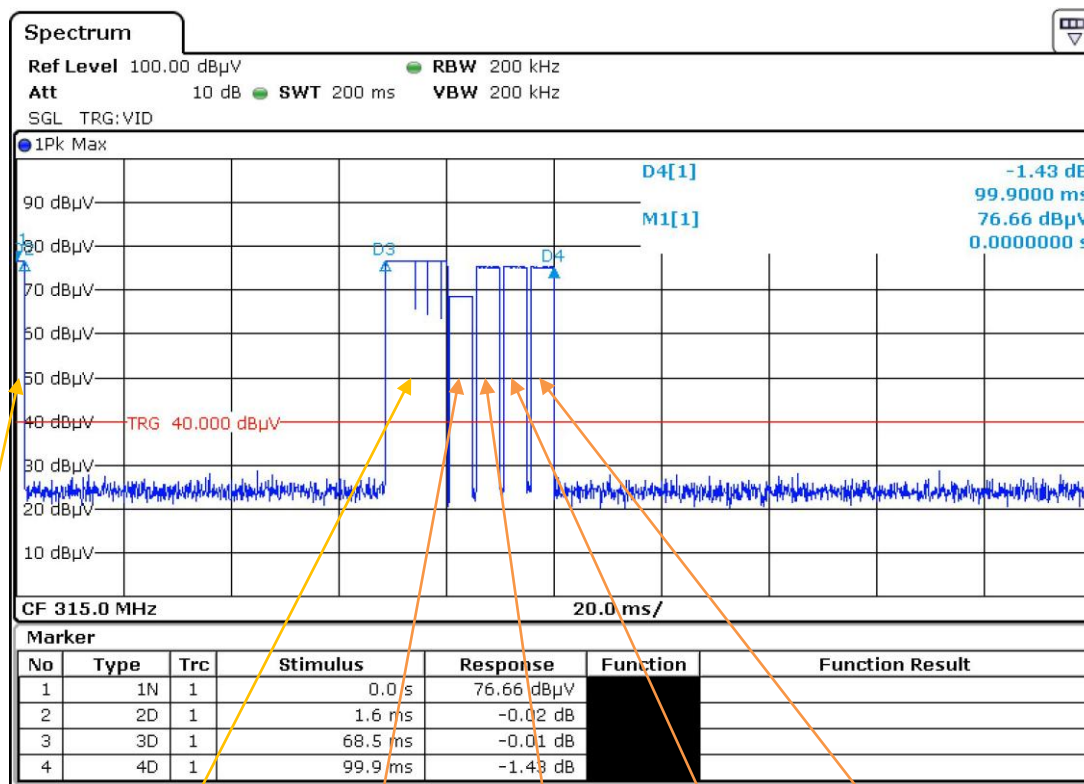
Data1 = 8.27 ms

Data2 + CW1 + CW2 + CW3 + CW4 + Data3 + Data4 = 58.7 ms

Averaging correction factor:

$20\log (TX_{on}/100ms) = 20\log (58.7ms/100ms) = -4.6 \text{ dB}$

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



Worst case transmission time in a 100 ms periode:

DataA + DataB + CW A + CW B + CW C + CW D = 30.41 ms

Averaging correction factor:

$20\log (TX_{on}/100ms) = 20\log (30.41ms/100ms) = -10.3 \text{ dB}$

Worst case, Averaging correction factor:

$20\log (TX_{on}/100ms) = 20\log (58.7ms/100ms) = -4.6 \text{ dB}$