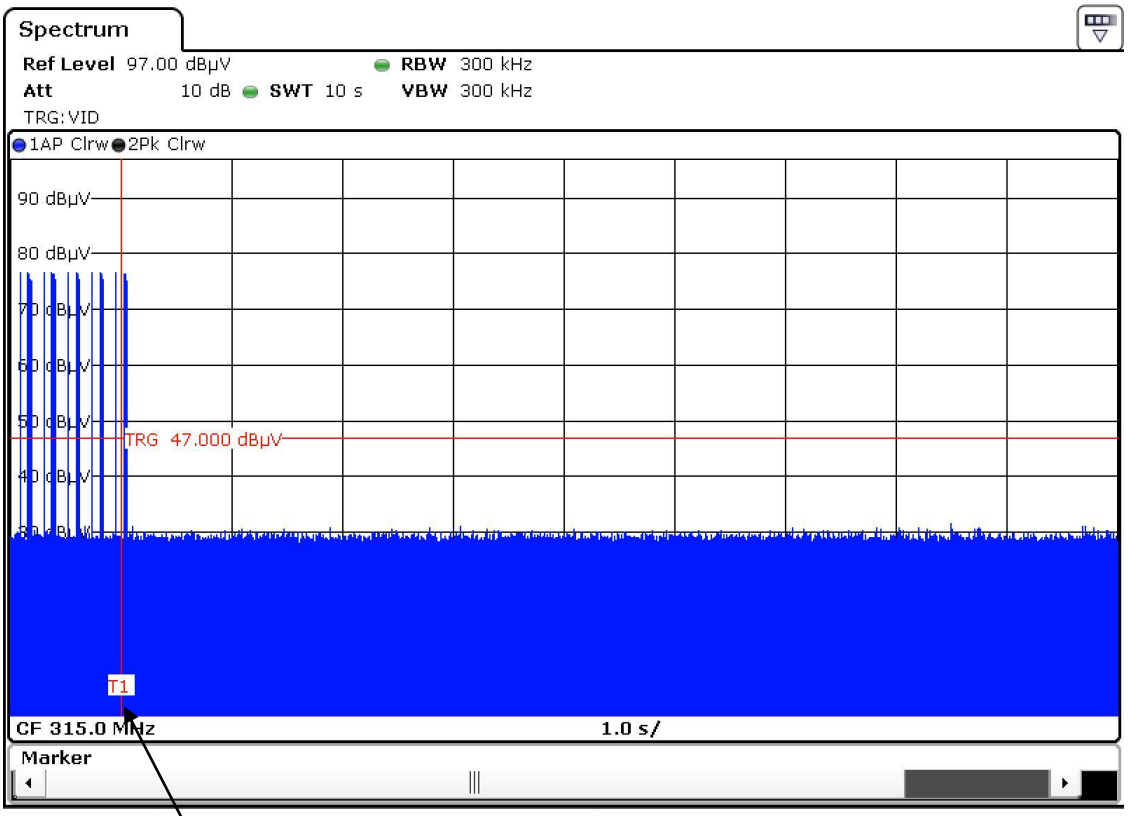
Annex no. 11

Periodic Operation Characteristics

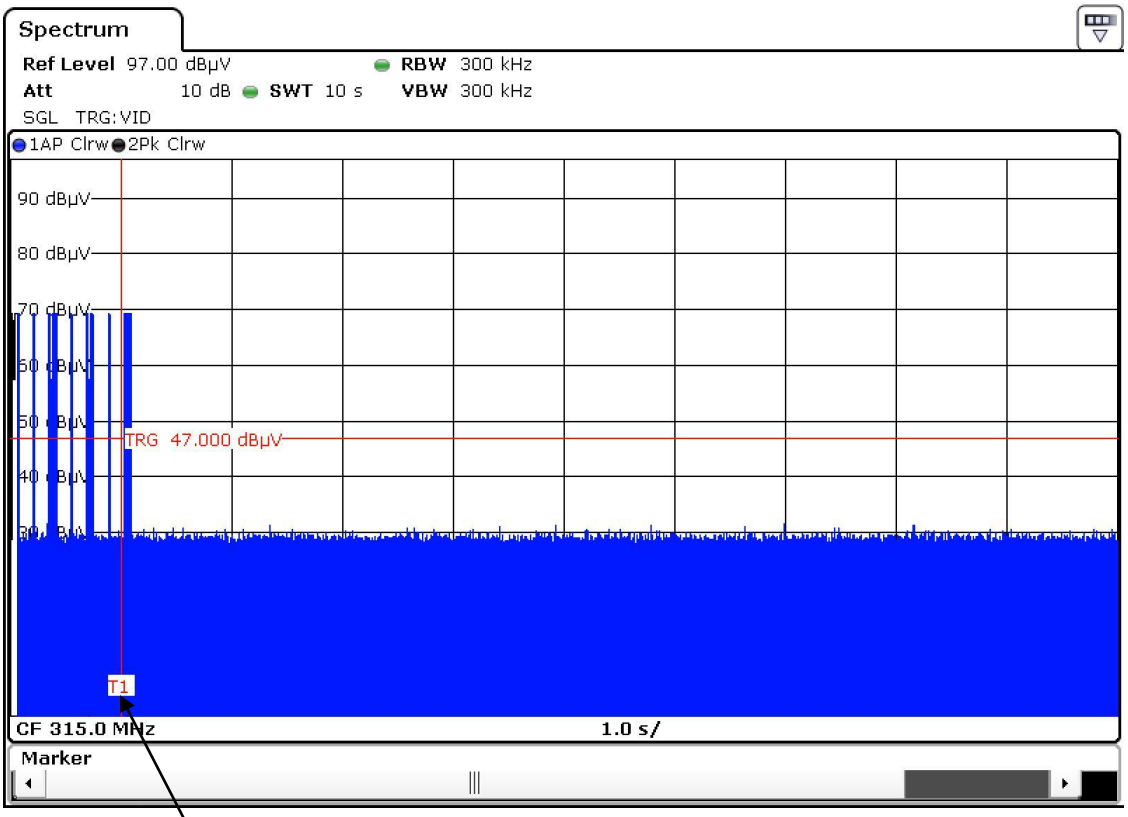
RSS-210 Section A1.1.1 (1) / FCC Section 15.231 (a)(1): A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

Transmission time
Open button



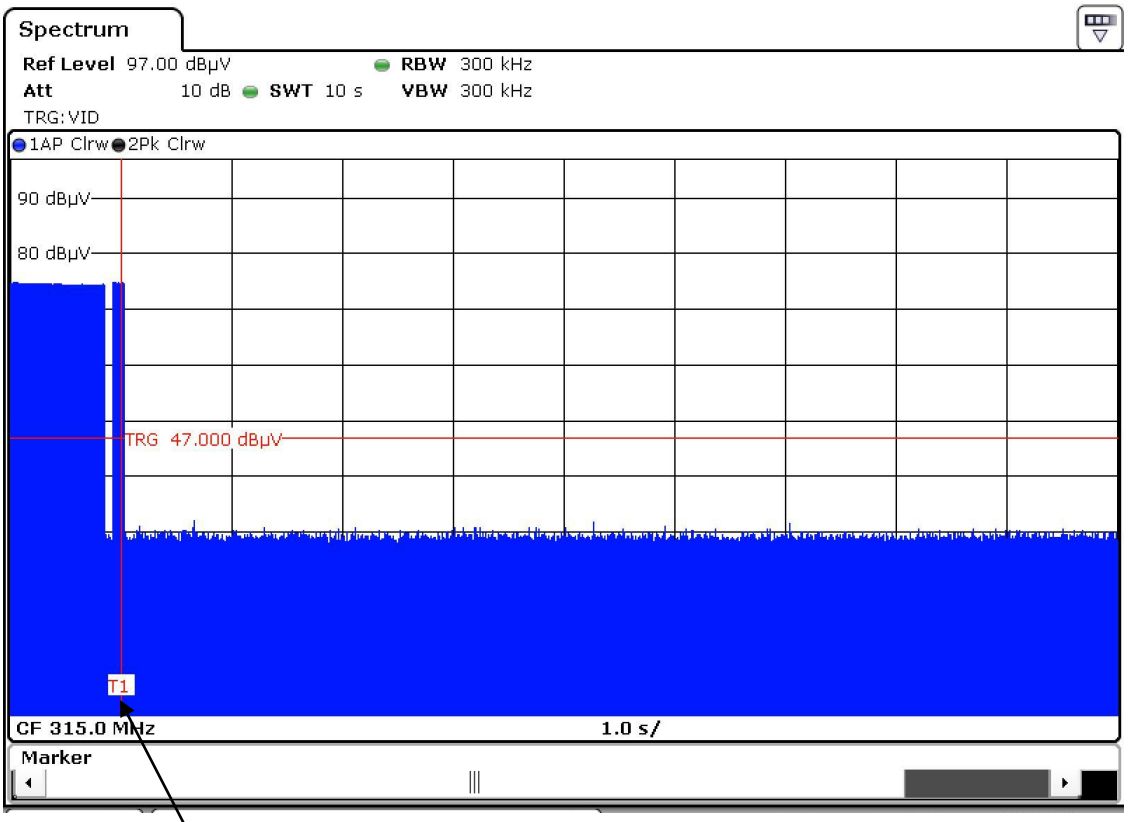
release point

Transmission time
Close button



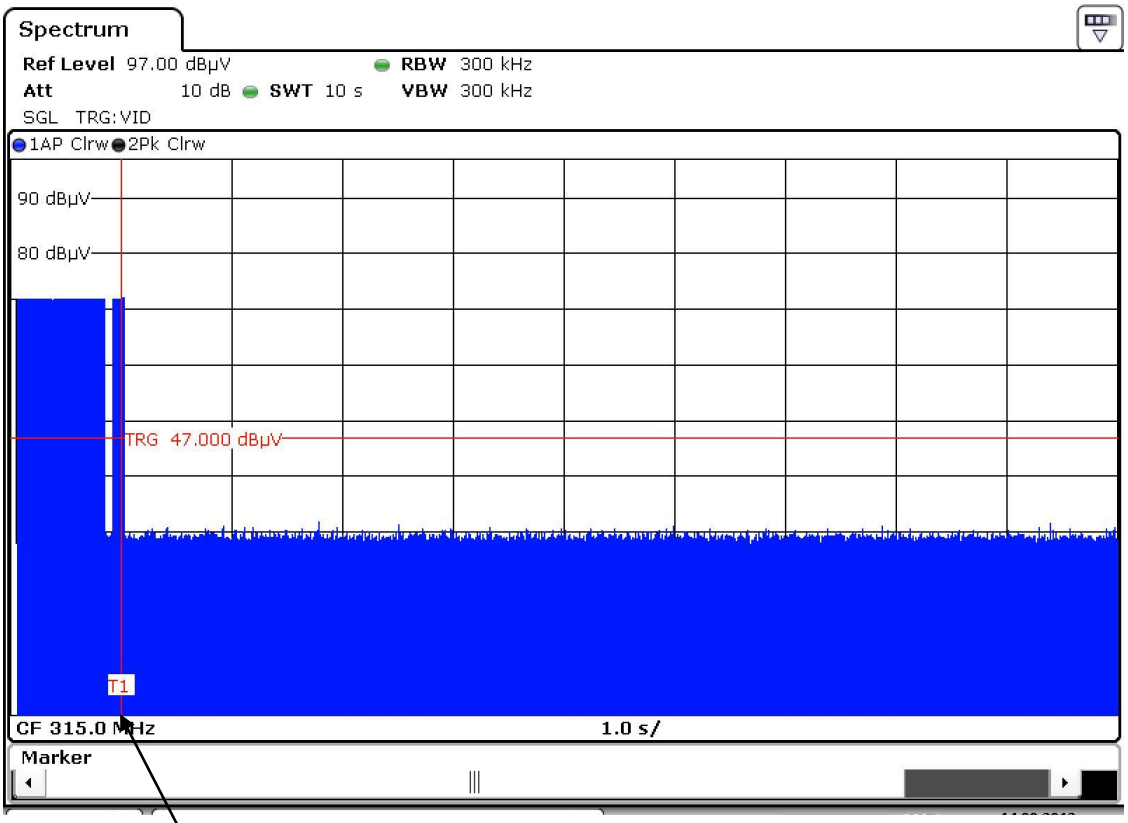
release point

Transmission time
Trunk button



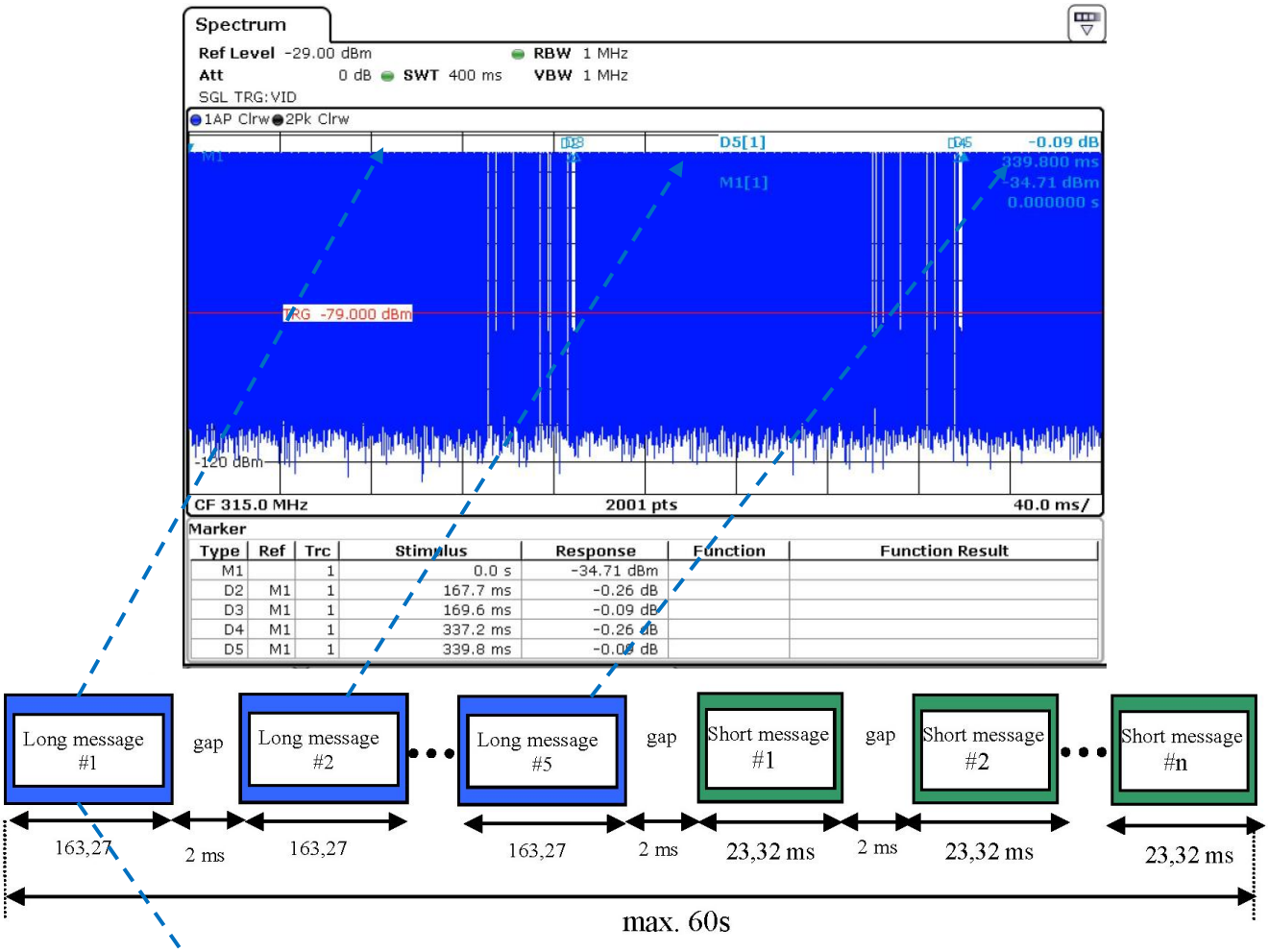
release point

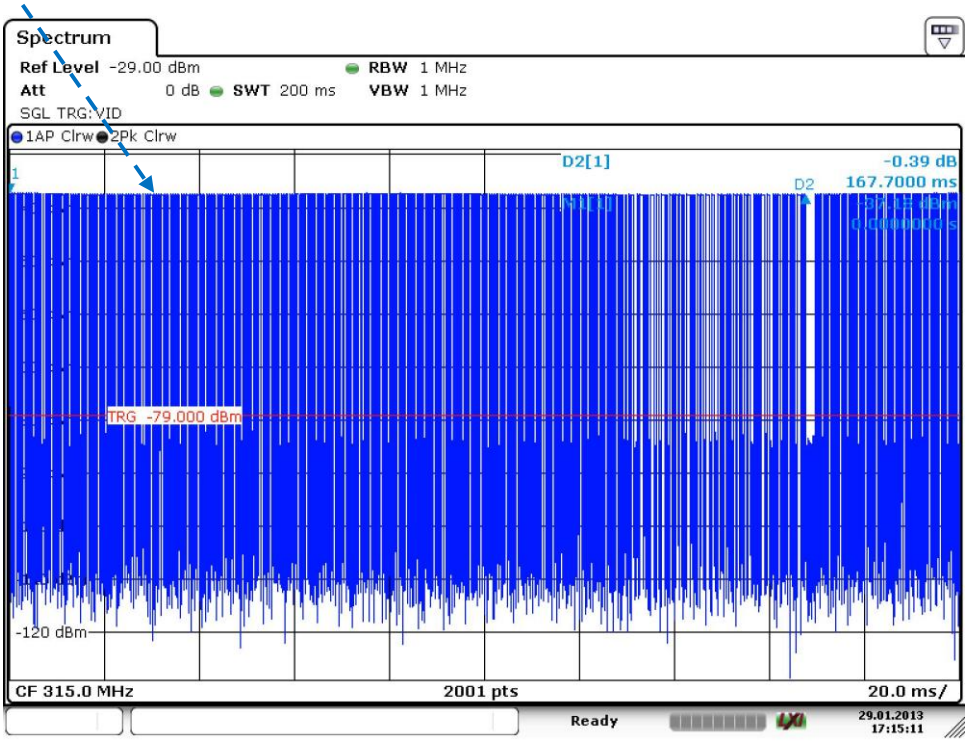
Transmission time
Panik button



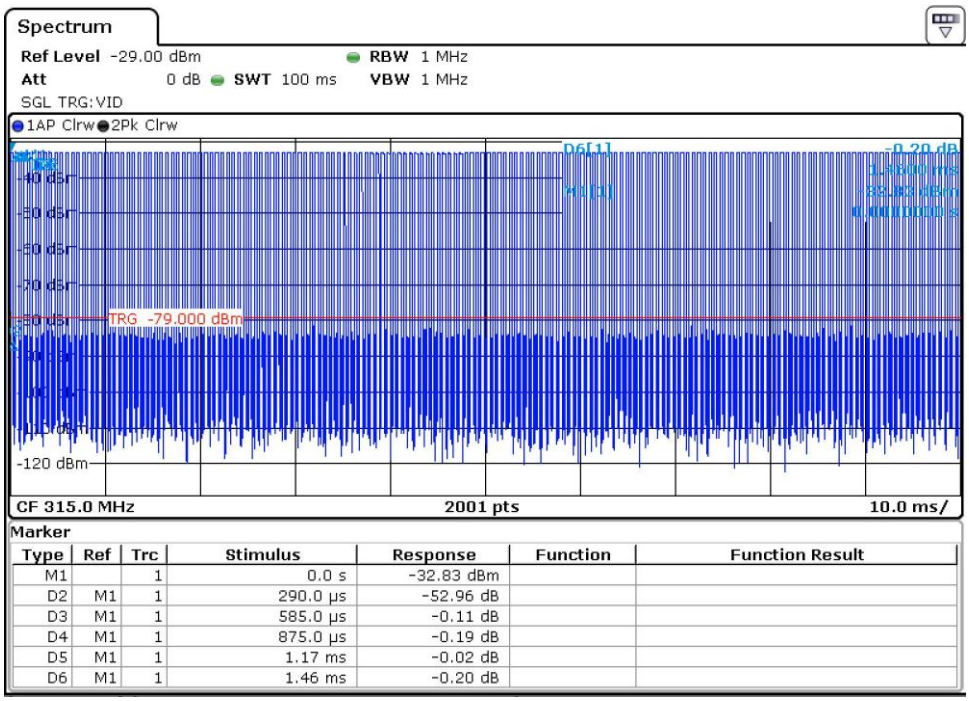
release point

Transmission times (Active entry mode)





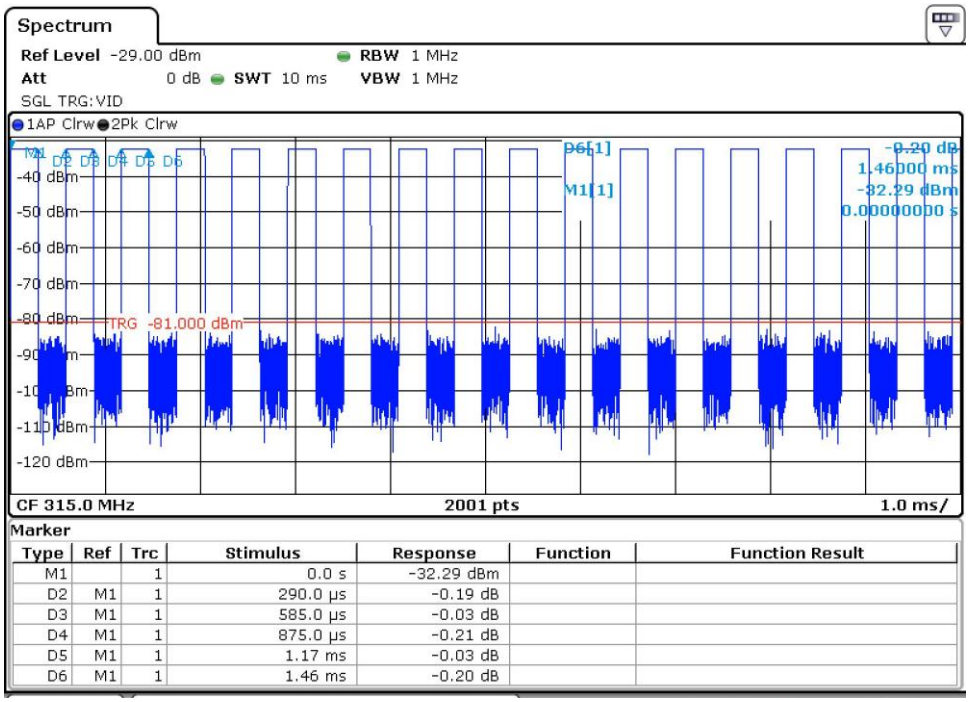
Long message = 167.7 ms



Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	0.0 s	-32.83 dBm		
D2	M1	1	290.0 µs	-52.96 dB		
D3	M1	1	585.0 µs	-0.11 dB		
D4	M1	1	875.0 µs	-0.19 dB		
D5	M1	1	1.17 ms	-0.02 dB		
D6	M1	1	1.46 ms	-0.20 dB		

Long message = 167.7 ms
Single pulse = 290µs Ø
172 pulses a'290.µs = 49.88 ms



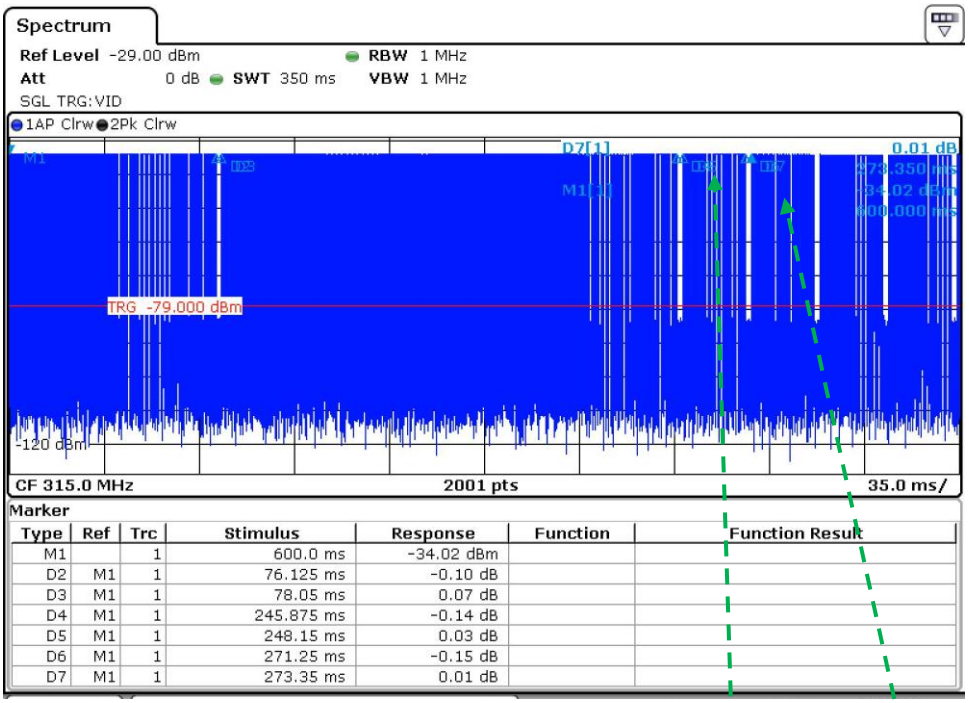
Marker

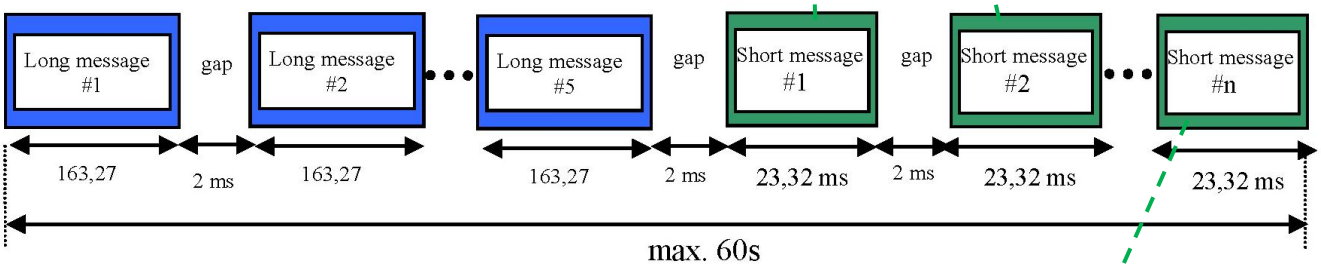
Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	0.0 s	-32.29 dBm		
D2	M1	1	290.0 µs	-0.19 dB		
D3	M1	1	585.0 µs	-0.03 dB		
D4	M1	1	875.0 µs	-0.21 dB		
D5	M1	1	1.17 ms	-0.03 dB		
D6	M1	1	1.46 ms	-0.20 dB		

Averaging correction factor:

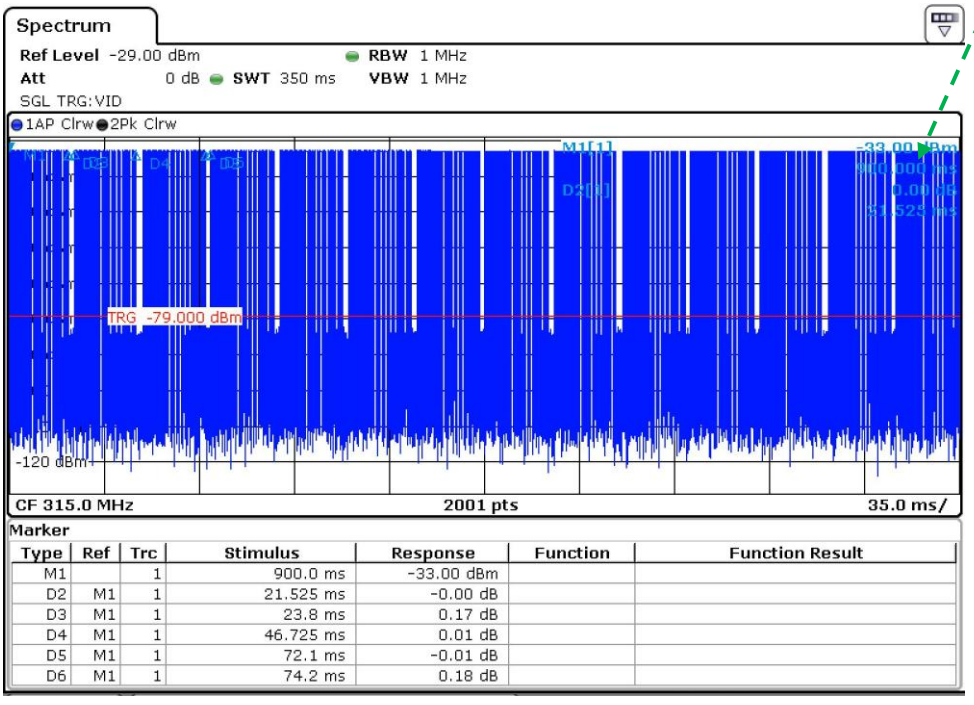
20log (TX_{on}/100ms)
20log (49.88ms/100ms) = **-6.0 dB**

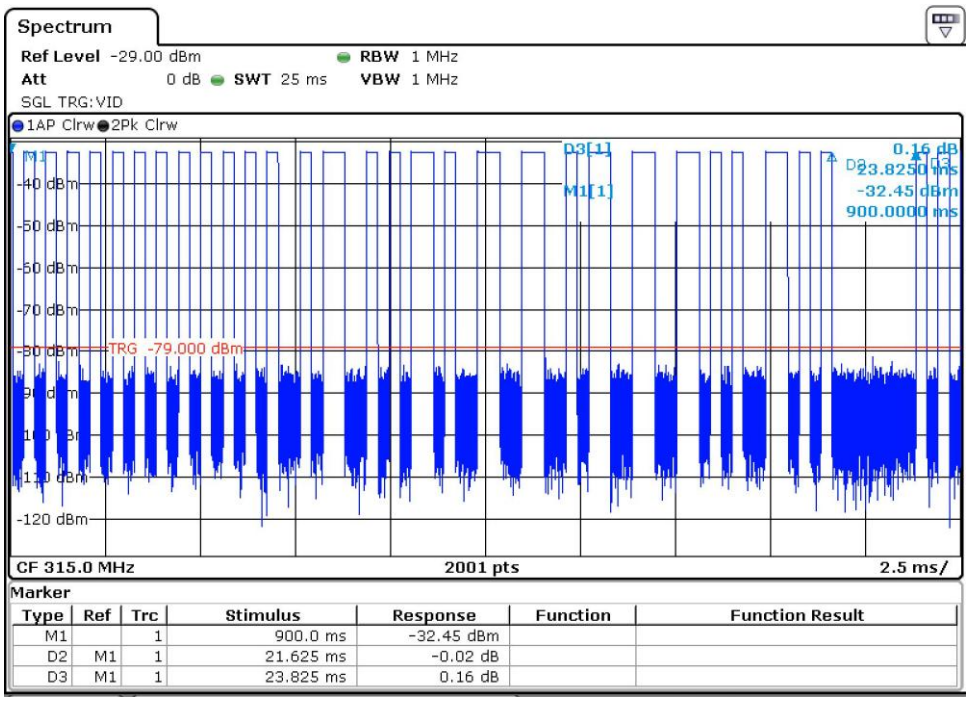
Short message



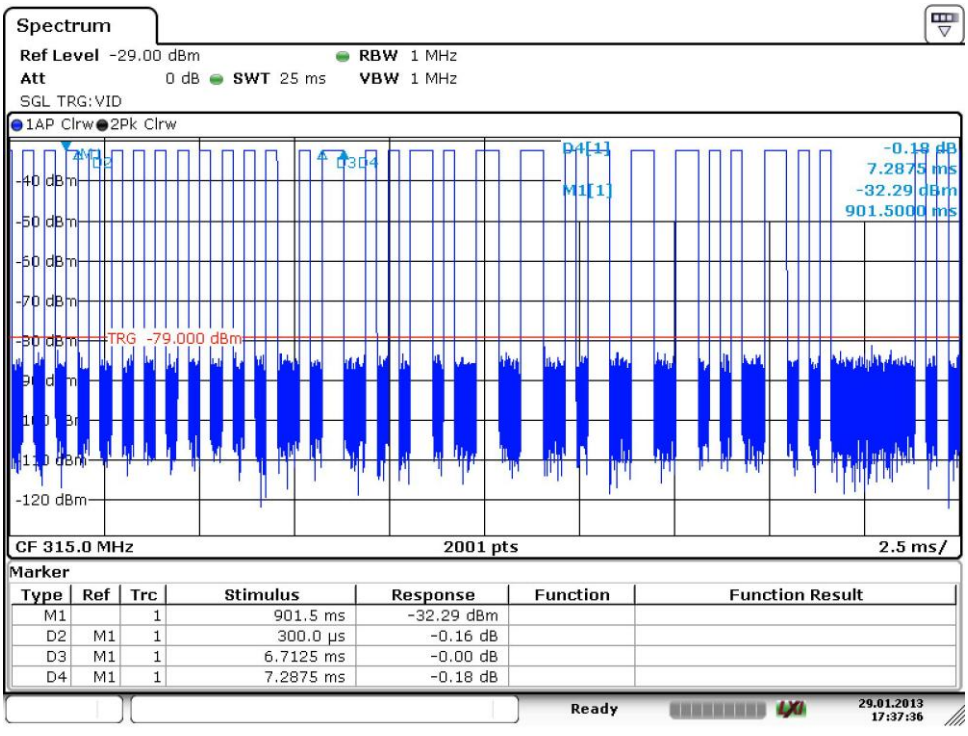


Short message = 23.3 ms





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



Date: 29.JAN.2013 17:37:35

Type 1 pulse = 300 µs
Type 2 pulse = 575 µs

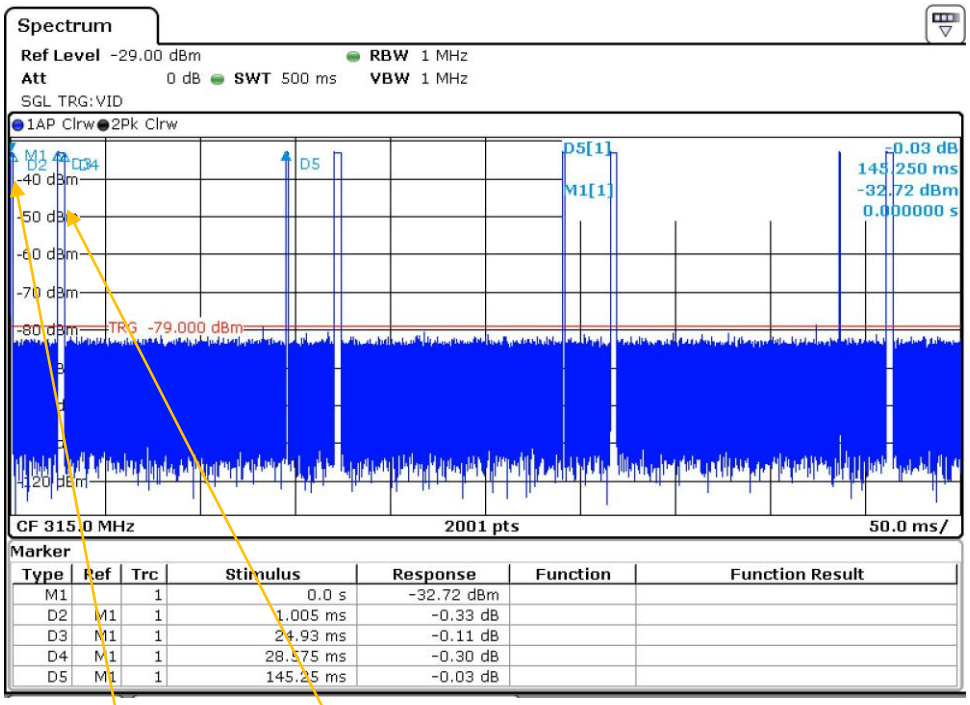
Worst case transmission time in a 100 ms periode:

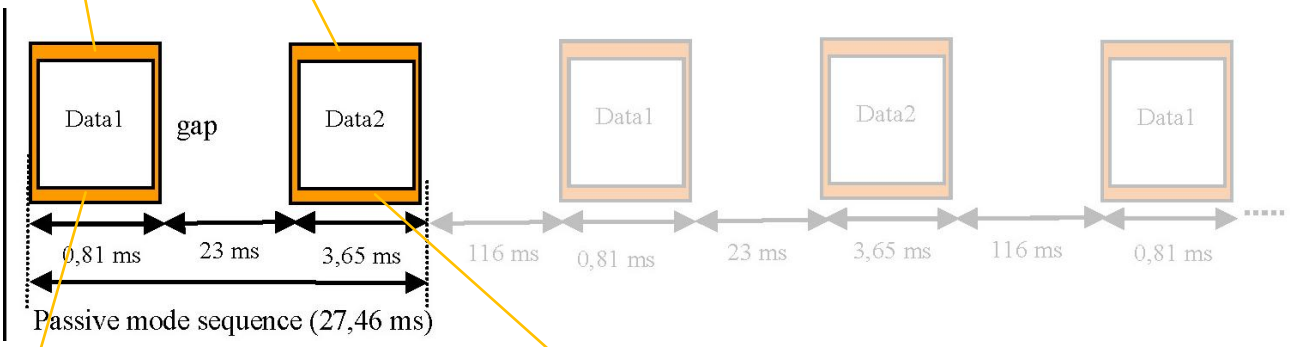
Short message block 1 = 21 * Type 1 pulse + 8 * Type 2 pulse
= 21 * 300 µs + 8 * 575µs = 10.9 ms
Short message block 2 = 21 * Type 1 pulse + 8 * Type 2 pulse
= 21 * 300 µs + 8 * 575µs = 10.9 ms
Short message block 3 = 21 * Type 1 pulse + 8 * Type 2 pulse
= 21 * 300 µs + 8 * 575µs = 10.9 ms
Short message block 4 = 5 * Type 1 pulse
= 5 * 300 µs = 1.53 ms

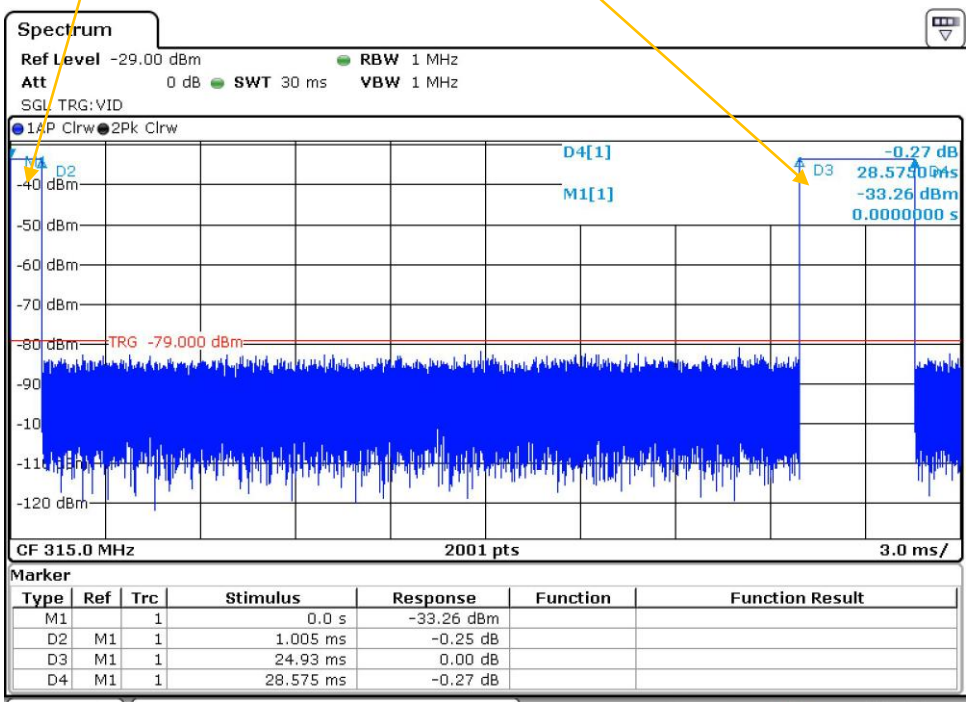
Total transmission time = 34.2 ms

Averaging correction factor:
20log (TX_{on}/100ms) = 20log (34.2ms/100ms) = -9.3 dB

Transmission times (Passive entry / Passive start mode)







Worst case transmission time in a 100 ms periode:

Puls 1 = 1.005 ms
Puls 2 = 3.645 ms

Total transmission time = 4.65 ms

Averaging correction factor:
20log (TX_{on}/100ms) = 20log (4.65ms/100ms) = -26.65 dB

Worst case, Averaging correction factor:

20log (TX_{on}/100ms) = 20log (49.88ms/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.