

## 2.4 GHz 802.15.4 Transceiver Duty Cycle

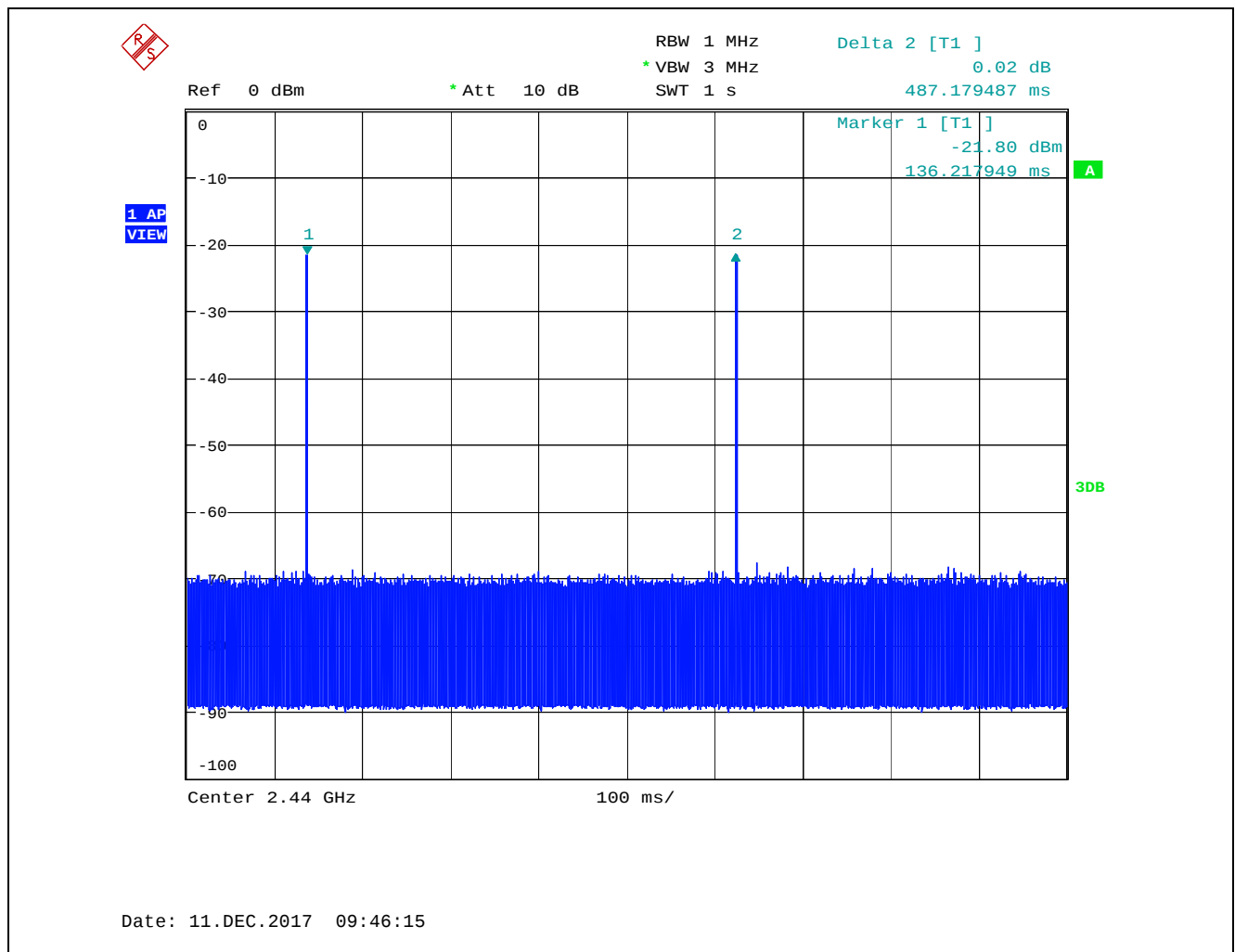
### Calculation for Pulse Train or 100 ms Time Frame if Pulse Train Exceeds 100 ms

#### Duty Cycle in 100 ms

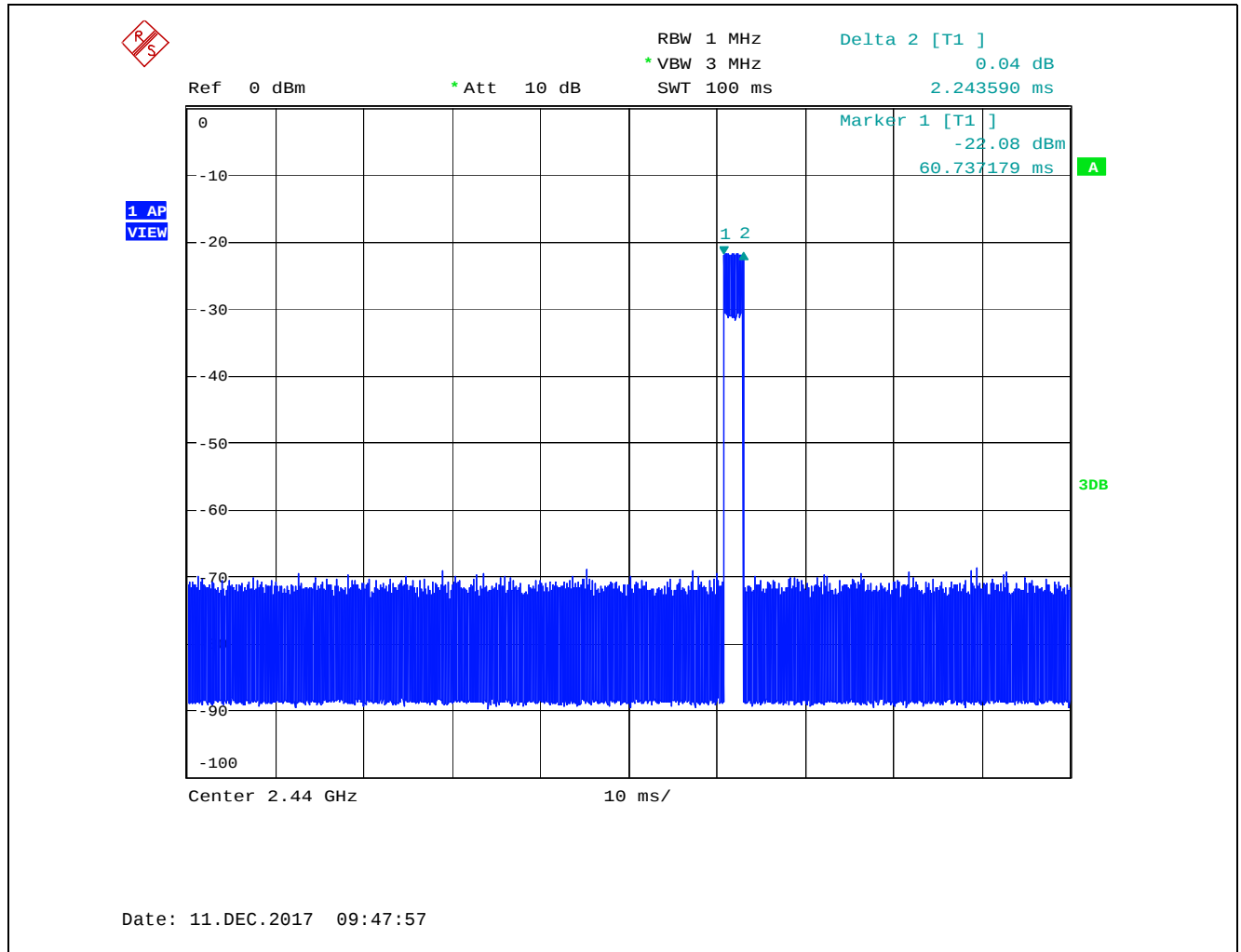
| Sub-Pulse                                                                        | Duration (ms) | Number of pulses in 100 ms | Sub-Pulse "On Time" (ms) |
|----------------------------------------------------------------------------------|---------------|----------------------------|--------------------------|
| 1                                                                                | 2.307692      | 1                          | 2.307692                 |
|                                                                                  |               | TOTAL ON TIME:             | 2.307692                 |
| Duty Cycle in 100 ms = (TOTAL ON TIME) / 100 = 2.307692 / 100 = 0.0231 or 2.31 % |               |                            |                          |

See the following plots for details.

**Plot 1** Duty Cycle, Pulse Train



Plot 2 Duty Cycle, In 100 ms



Plot 3 Duty Cycle, Pulse

