

***FCC Request:***

Re: FCC ID P7YSDIDD101

> Applicant: Shearwater Digital Innovations

> Correspondence Reference Number: 23742

***Since the transmitter is automatically activated, please provide the transmission time duration from the trigger point to when the transmission is completed and turned off.***

Answer:

The processor samples the reed switch approximately once per second. After detecting a change of state, it constructs the packet (1mS), then enables the VCO on the transmitter to power up (10mS), but does not transmit during that time. Then 8 packets (20 mS worst case) are sent, with a random timeout between them (100mS – 450mS). Therefore the total duration time from when the device is triggered, to when transmission is completed and turned off (worst case) is 4.321seconds.

0.000s	Trigger Point
1.000s	Microprocessor sample time (worst case)
0.011s	Microprocessor setup time for packet construction and transmitter warmup (worst case)
0.020s	Packet 1
0.450s	delay 1 between packets (no transmission)
0.020s	Packet 2
0.450s	delay 2 between packets (no transmission)
0.020s	Packet 3
0.450s	delay 3 between packets (no transmission)
0.020s	Packet 4
0.450s	delay 4 between packets (no transmission)
0.020s	Packet 5
0.450s	delay 5 between packets (no transmission)
0.020s	Packet 6
0.450s	delay 6 between packets (no transmission)
0.020s	Packet 7
0.450s	delay 7 between packets (no transmission)
0.020s	Packet 8
4.321s	Total Duration (worst case ) from when device is triggered to transmission completed and off.