Attn.: Katie Hawkins
        khawkins@fcc.gov
        FCC Application Processing Branch

Re: FCC ID NATTX433TV-1
Applicant: SmarTire Systems Inc
Correspondence Reference Number: 18480
731 Confirmation Number: EA100084

Dear Katie,

The following answers are submitted in response to your two questions.

1). When there is a reduction in pressure, at what rate will the sensor transmit?

 When there is a reduction in pressure the sensor transmits once every 15 seconds for 4 times.

If the pressure reduction stops then it transmits every 4 minutes. If the pressure keeps reducing it keeps transmitting every 15 seconds.

2). Submit time domain plots from which the duty cycle correction factor may be calculated.

The time domain plot is on the page following. If you would like greater detail I can submit the TRW datagrams that contain eight pages of details for the components used.

The sensor transmits 10 packets of data with each packet length 18.5 ms within 500 ms. every 4 – 6 minutes. So typically 2 packets in 100 ms period with a total packet length of 37 ms in 100 ms. With the BiPhase 50% on off duty cycle the EUT total on time in 100 ms then is 18.5 %. (18.5 ms + 18.5 ms = 37 ms total packet length at a 50% duty cycle = 18.5% / 100 ms). Note the marker shows 19 ms which is within the range of instrument error with a 100 ms sweep.
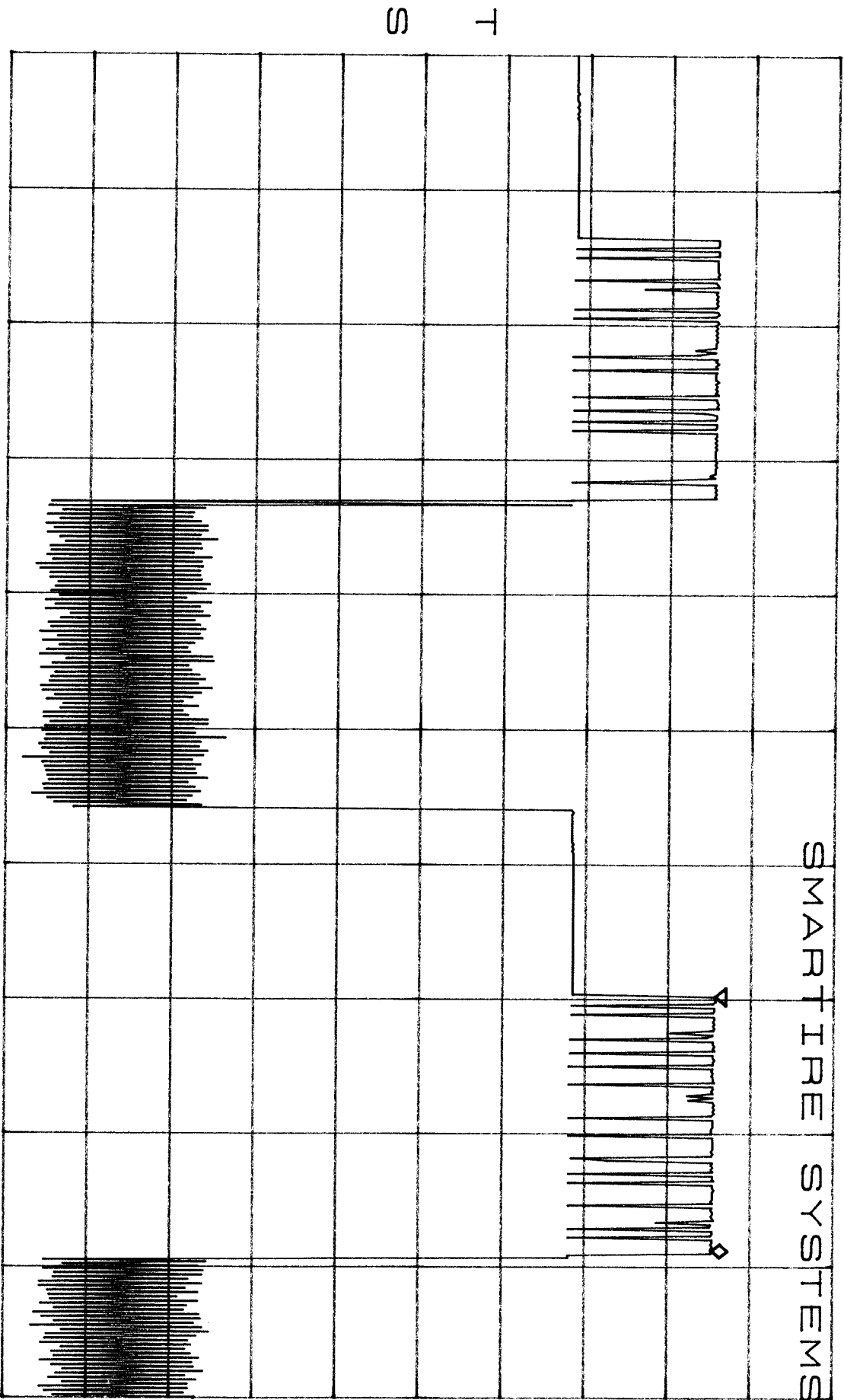

Best Regards,

Rod Munro

*ATTEN 0dB
RL -10.0dBm

10dB/

△MKR -.34dB
19ms

SMARTIRE SYSTEMS

S   T

CENTER 433.9983MHz
*RBW 100kHz   VBW 100kHz

SPAN 0Hz
*SWP 100ms