

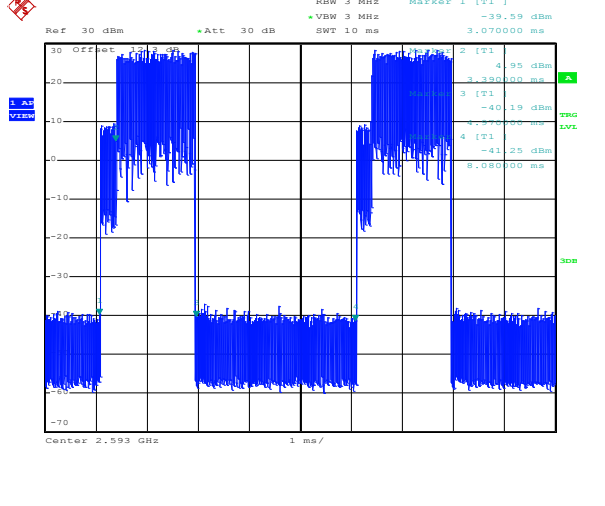
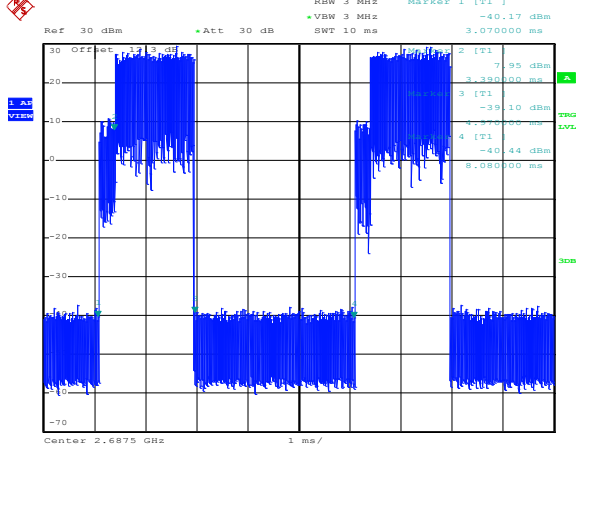
### Appendix E. Plots of Duty Cycle

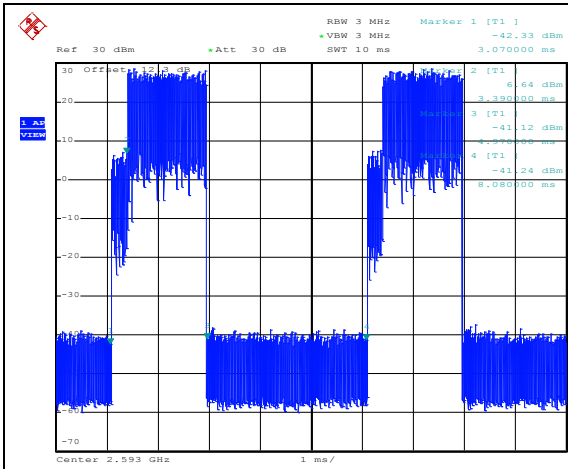
The plot below shows the waveform characteristics of the signal used in the SAR measurement. The pulse duration corresponds to a DL:UL symbol ratio of 29:18 and control symbols are not active.

The time vector plots are shown as below. The plot A is used to get the frame length of test signal and the plot B is used to get the time of UL data symbols. Since there was no energy in the control symbols, the effective power is only across 15 data symbols. The calculation of duty cycle is as below:

**Duty Cycle = 15 data symbols UL time / Frame Length x 100 %**

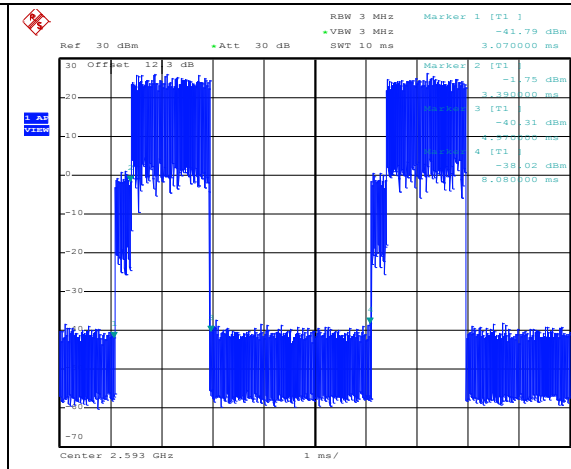
For DL:UL=29:18, the duty cycle without control symbol active = 15/48= 31.25%

	
<p><b>PUSC, QPSK 1/2, BW 5MHz</b></p>	<p><b>PUSC, QPSK 1/2, BW 10MHz</b></p>
<p><b>Duty Cycle = Traffic Symbols / Frame Size</b>          = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%          = (4.97 – 3.39) / (8.08 – 3.07) x 100%  <b>= 31.53 %</b></p>	<p><b>Duty Cycle = Traffic Symbols / Frame Size</b>          = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%          = (4.97 – 3.39) / (8.08 – 3.07) x 100%  <b>= 31.53 %</b></p>



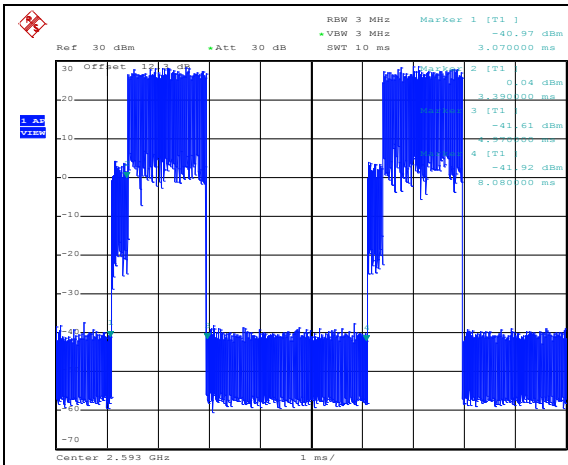
**PUSC, QPSK 3/4, BW 5MHz**

Duty Cycle = Traffic Symbols / Frame Size  
 = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%  
 = (4.97 – 3.39) / (8.08 – 3.07) x 100%  
 = **31.53 %**



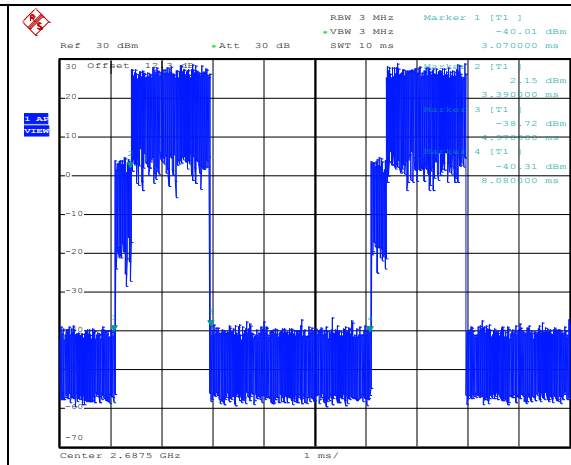
**PUSC, QPSK 3/4, BW 10MHz**

Duty Cycle = Traffic Symbols / Frame Size  
 = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%  
 = (4.97 – 3.39) / (8.08 – 3.07) x 100%  
 = **31.53 %**



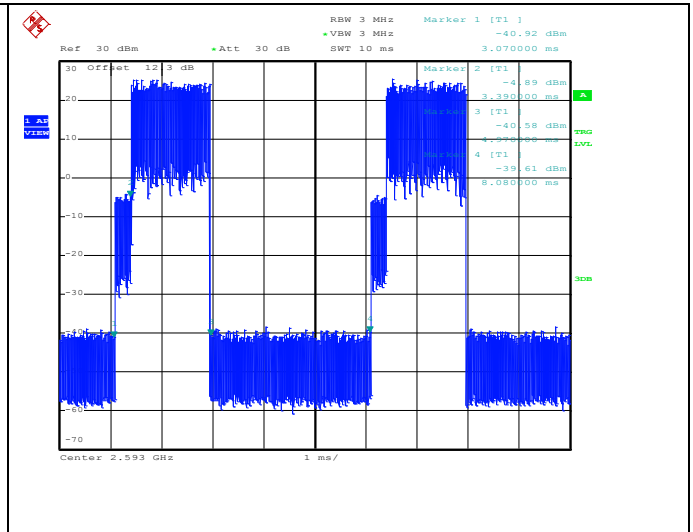
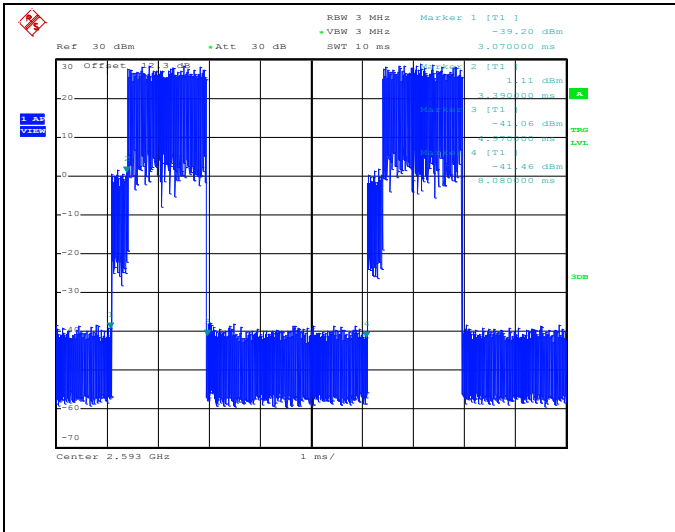
**PUSC, 16QAM 1/2, BW 5MHz**

Duty Cycle = Traffic Symbols / Frame Size  
 = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%  
 = (4.97 – 3.39) / (8.08 – 3.07) x 100%  
 = **31.53 %**



**PUSC, 16QAM 1/2, BW 10MHz**

Duty Cycle = Traffic Symbols / Frame Size  
 = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%  
 = (4.97 – 3.39) / (8.08 – 3.07) x 100%  
 = **31.53 %**



PUSC, 16QAM 3/4, BW 5MHz	PUSC, 16QAM 3/4, BW 10MHz
<p><b>Duty Cycle = Traffic Symbols / Frame Size</b>            = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%            = (4.97 – 3.39) / (8.08 – 3.07) x 100%  <b>= 31.53 %</b></p>	<p><b>Duty Cycle = Traffic Symbols / Frame Size</b>            = (Mark 3 – Mark 2) / (Mark 4 – Mark 1) x 100%            = (4.97 – 3.39) / (8.08 – 3.07) x 100%  <b>= 31.53 %</b></p>