APPENDIX-D SUMMARY OF RESULTS

D1: Response of the control input

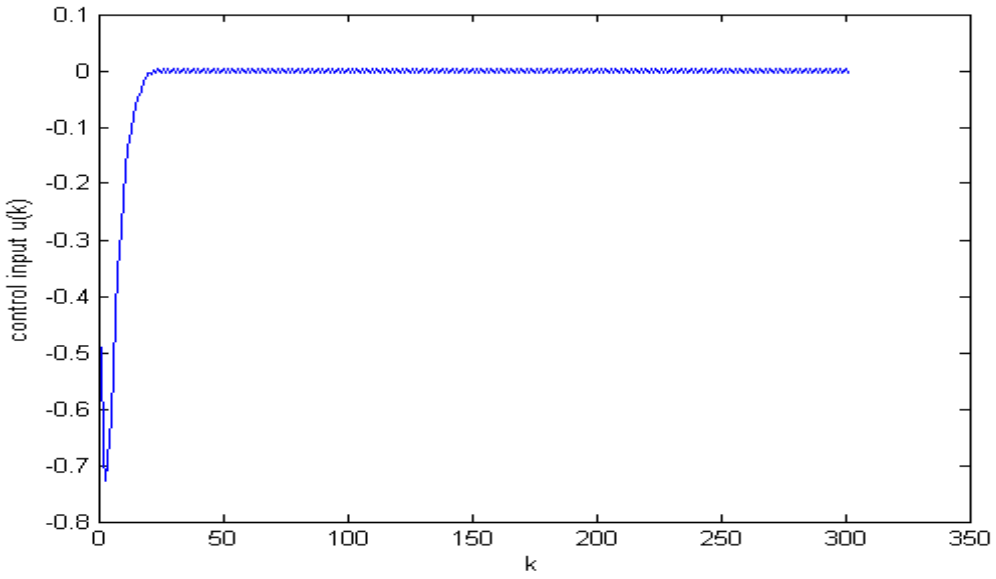

Figure 2. 17 *Control Input u*

D2 : : Response of the sliding surface

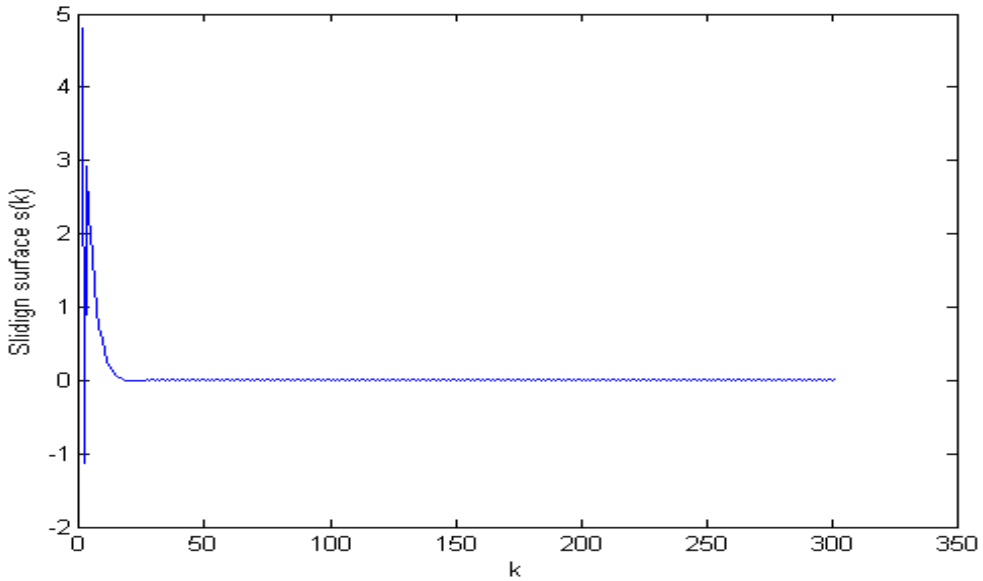

Figure 2.18 *Sliding Surface S*

D3: Response of the Position state

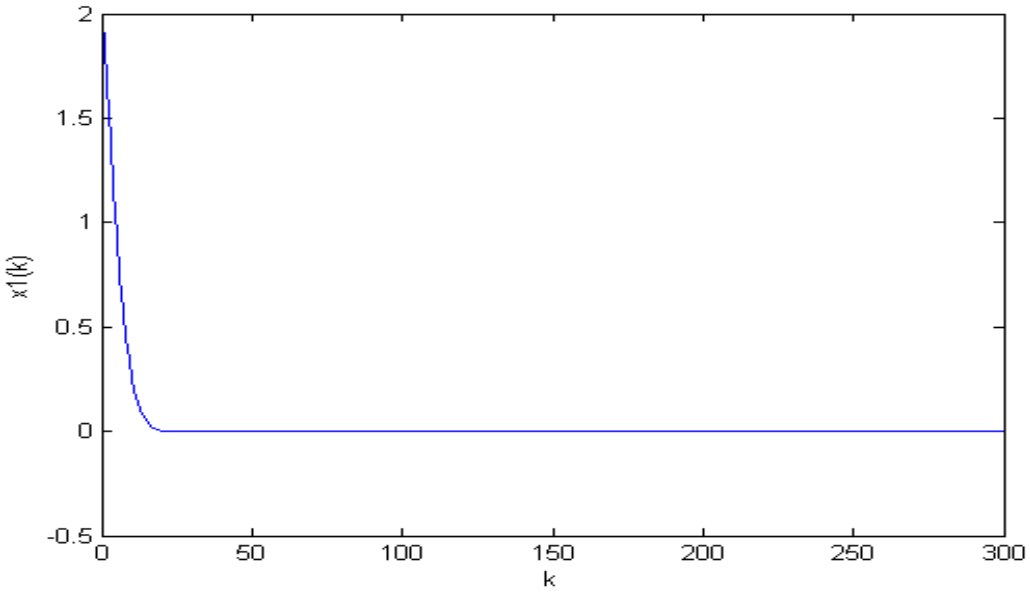

Figure 2.19 *Position state* x_1

D4: Response of the Angular velocity state

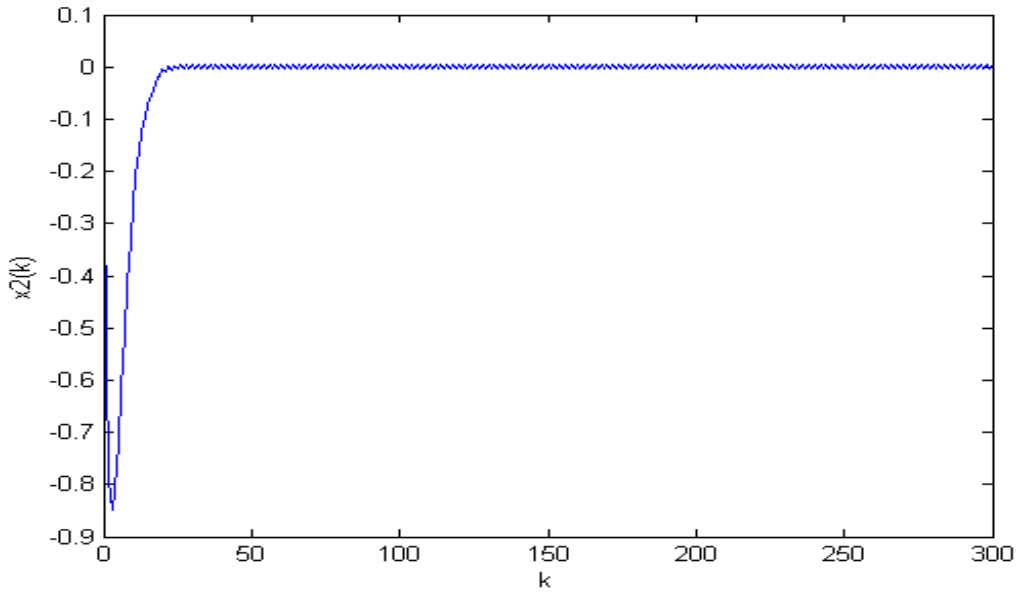

Figure 2.20 Angular velocity state x_2

D5: Response of Armature current state x3

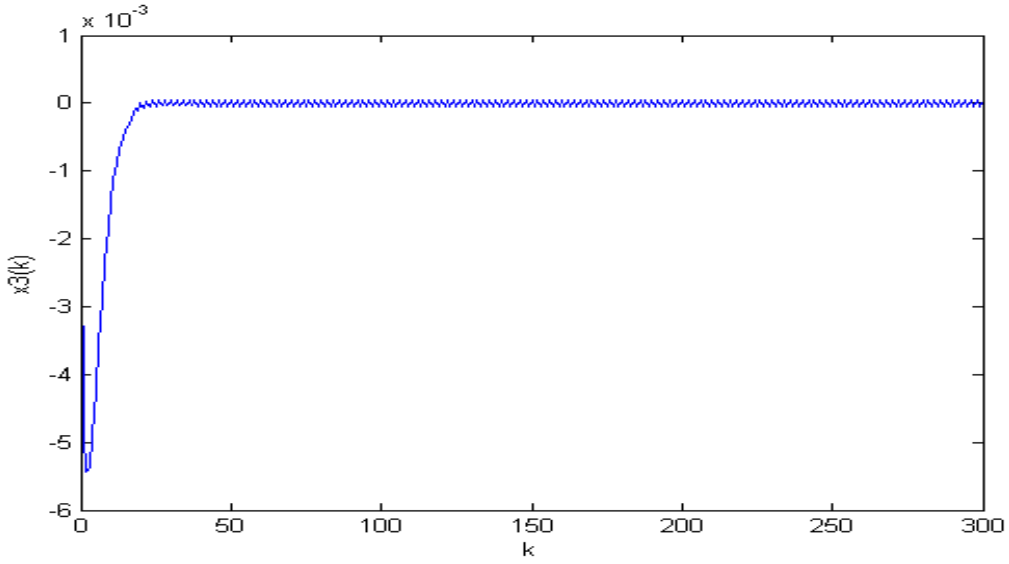

Figure 2.21 Armature current state x3

D6: PWM IGBT Drive signal generation for 6.9%

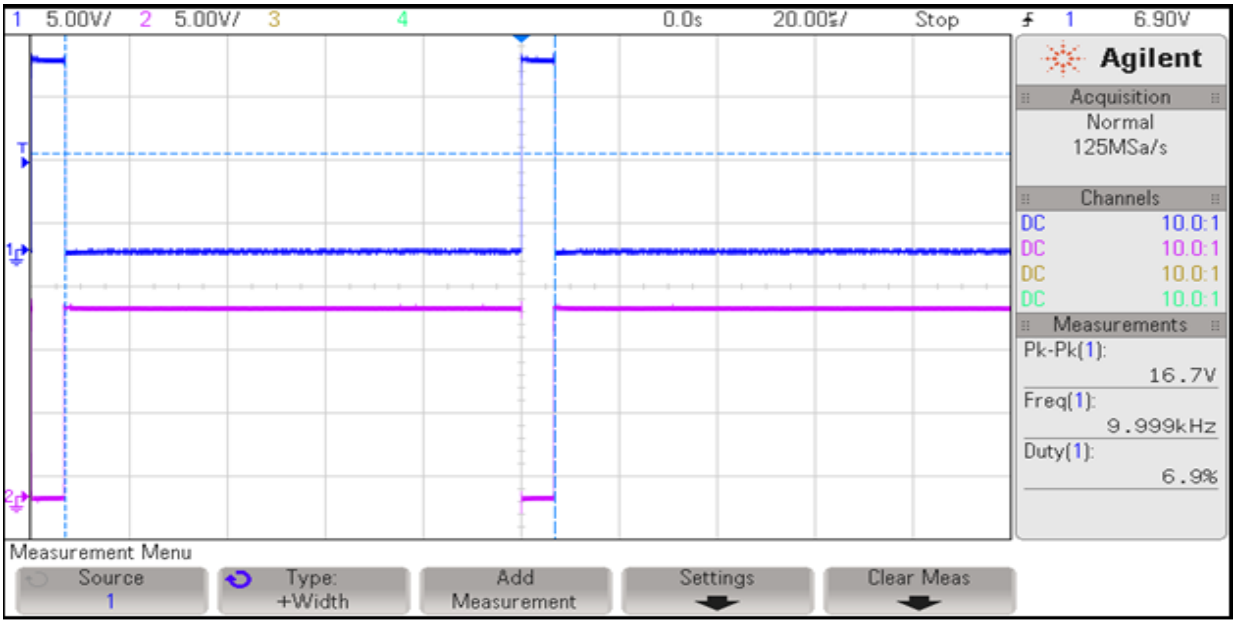

Figure A. 28 PWM for 6.9% duty cycle

D7: PWM IGBT Drive signal generation for 25.2%

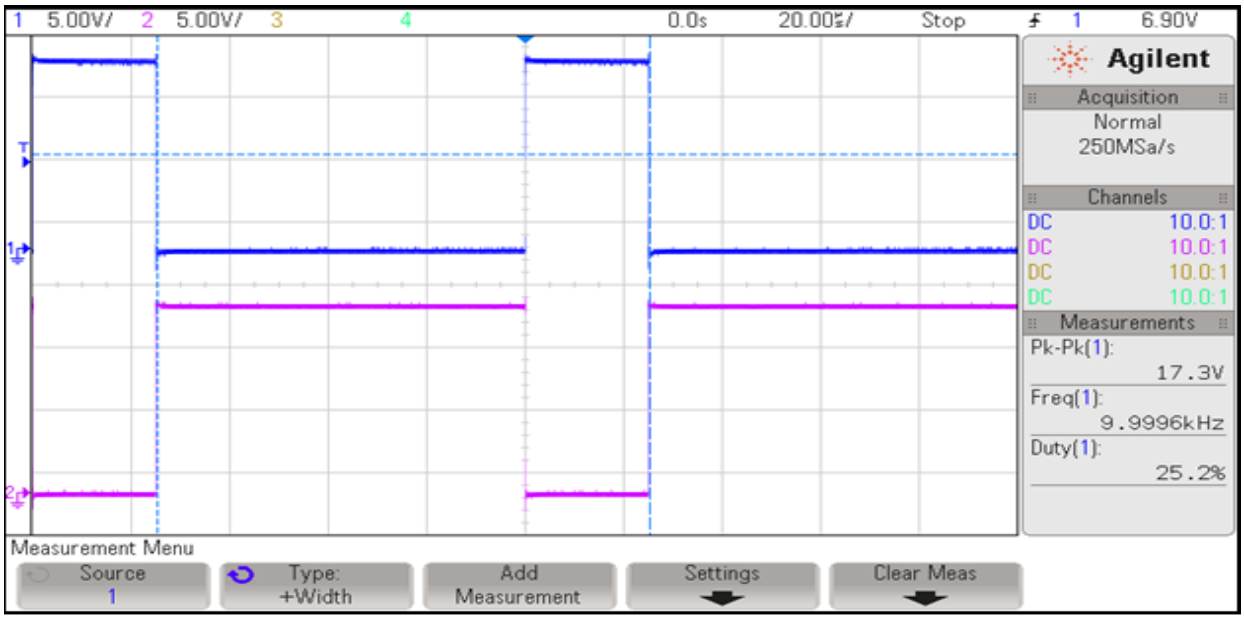

Figure A.29 PWM for 25.2% duty cycle

D8: PWM IGBT Drive signal generation for 6.9%

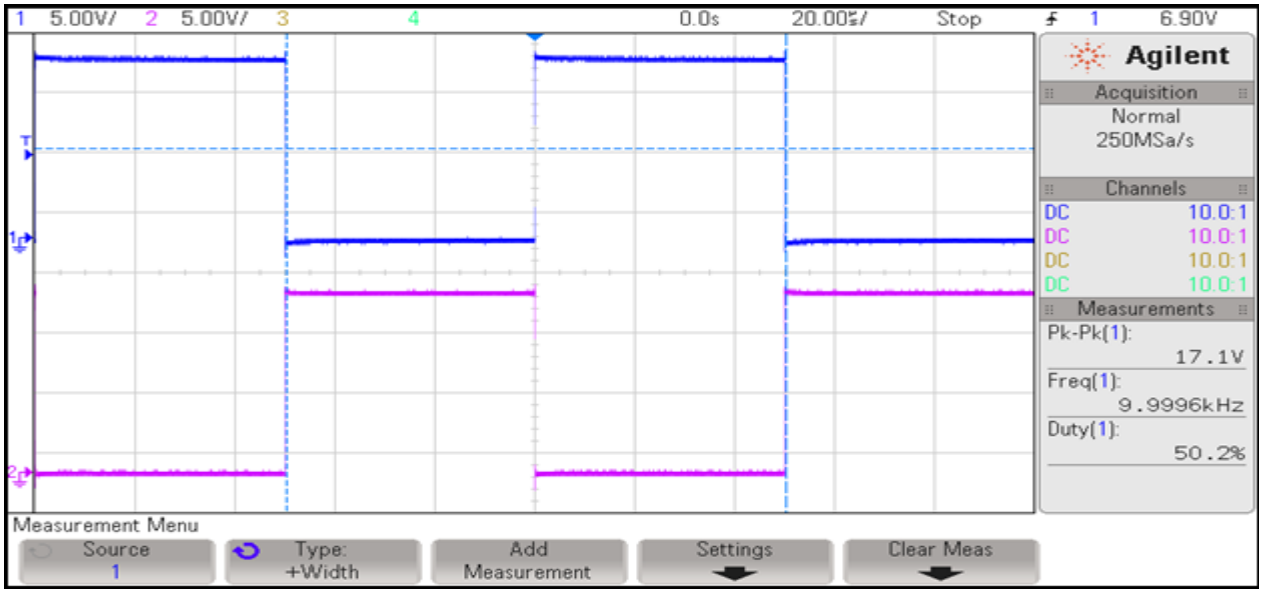

Figure A.30 PWM for 50.2% duty cycle

D9: PWM IGBT Drive signal generation for 75.2%

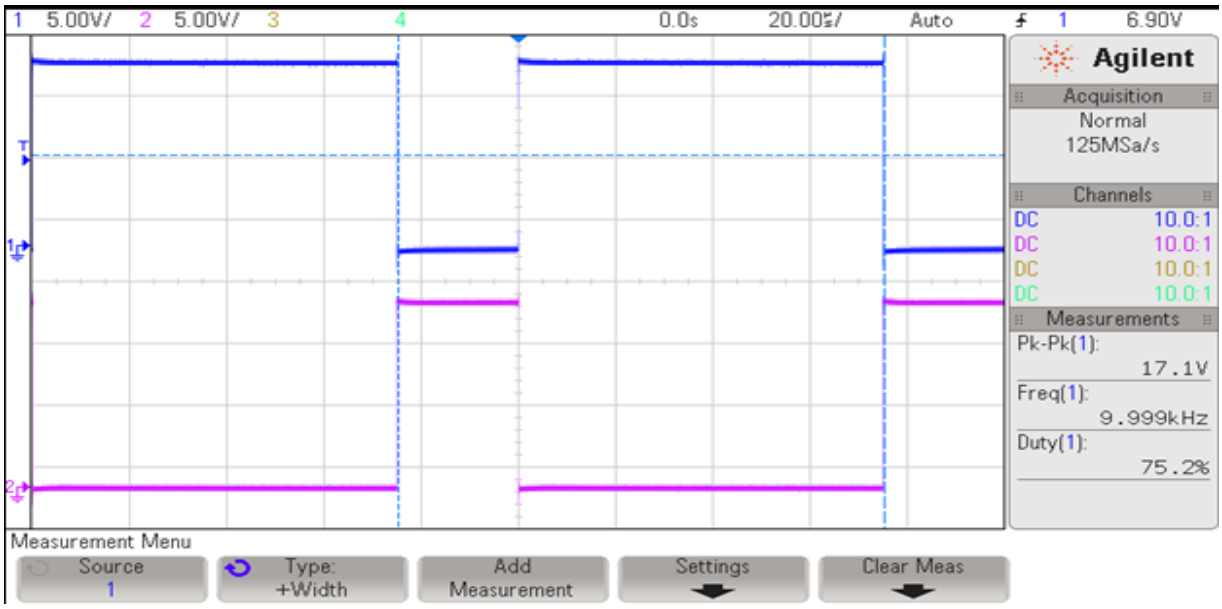

Figure A.31 PWM for 75.2% duty cycle

D10: PWM IGBT Drive signal generation for 93.6%

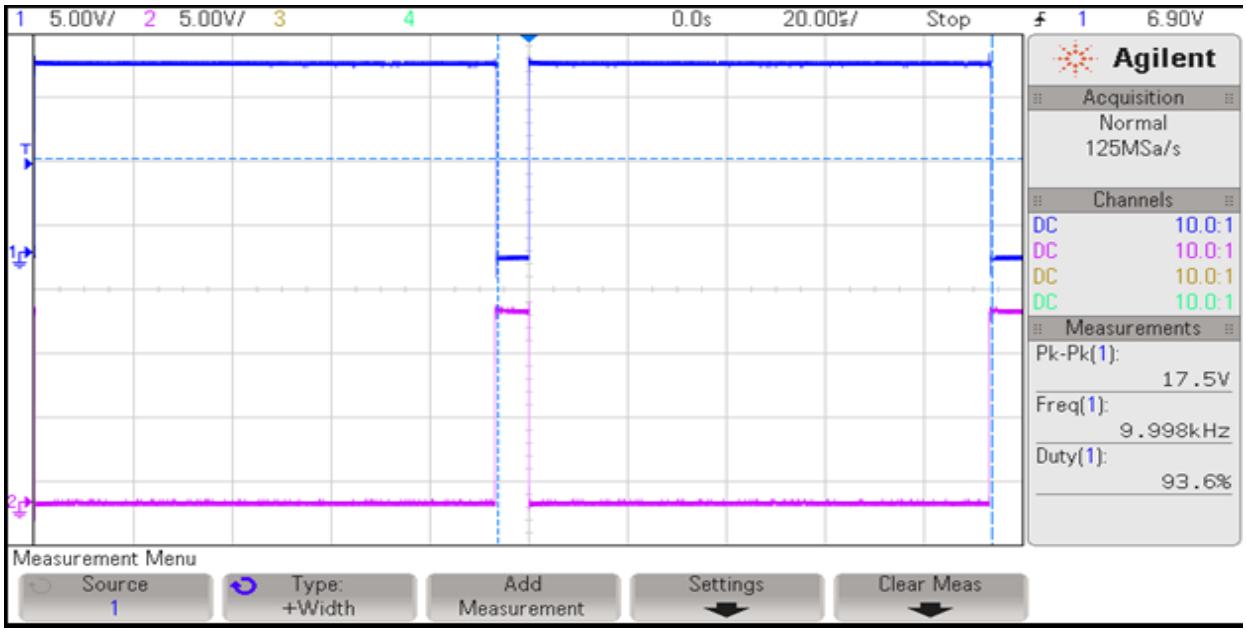

Figure A.32 PWM for 93.6% duty cycle

D11: IGBT Gate pulse generation from DSP

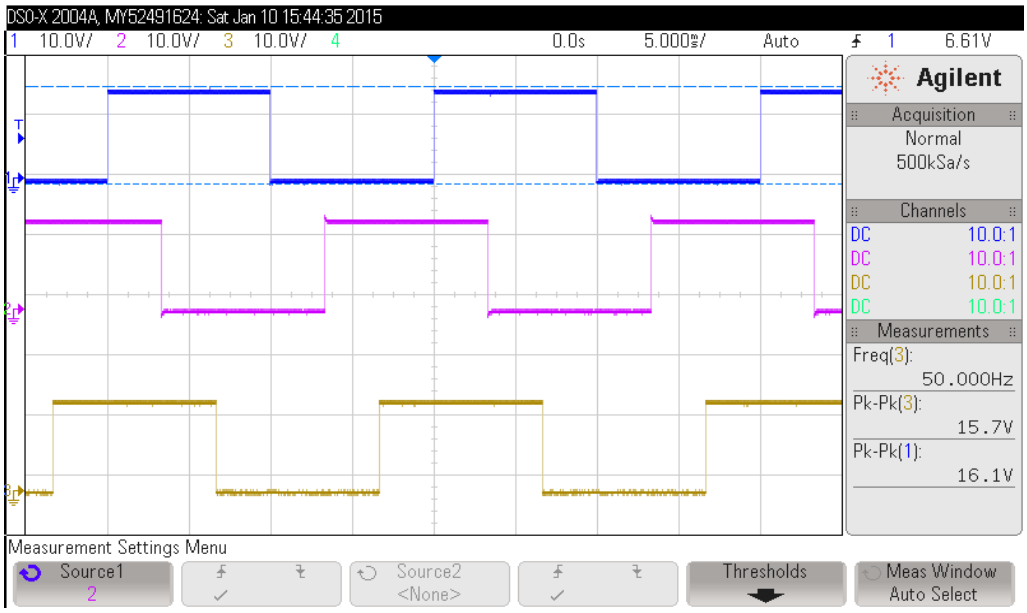

Figure 5.2 Gate pulses from DSP

D12: Normal and Inverted Gate pulses

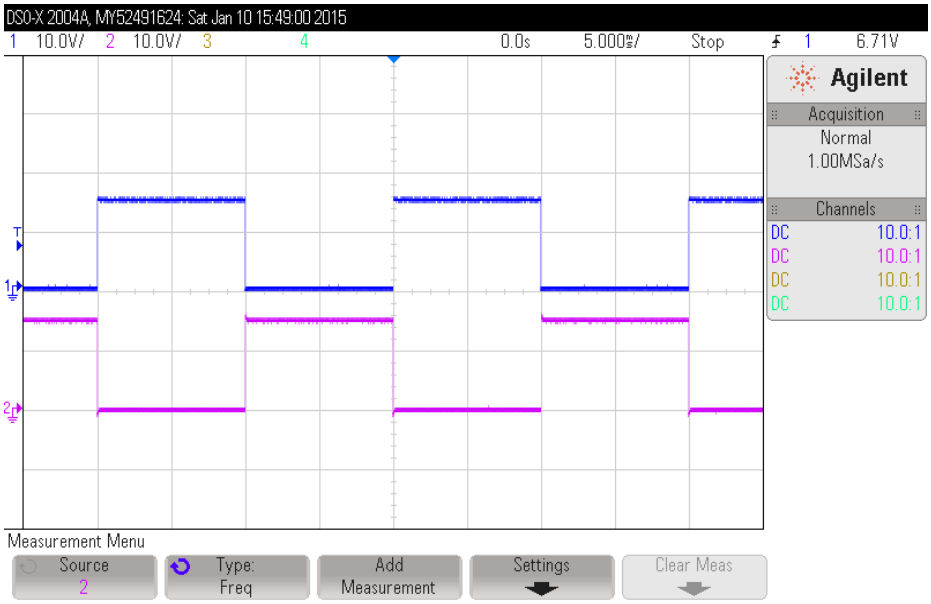

Figure 5.3 Inverted Gate pulse from DSP

D13: Dead Band between Pulses

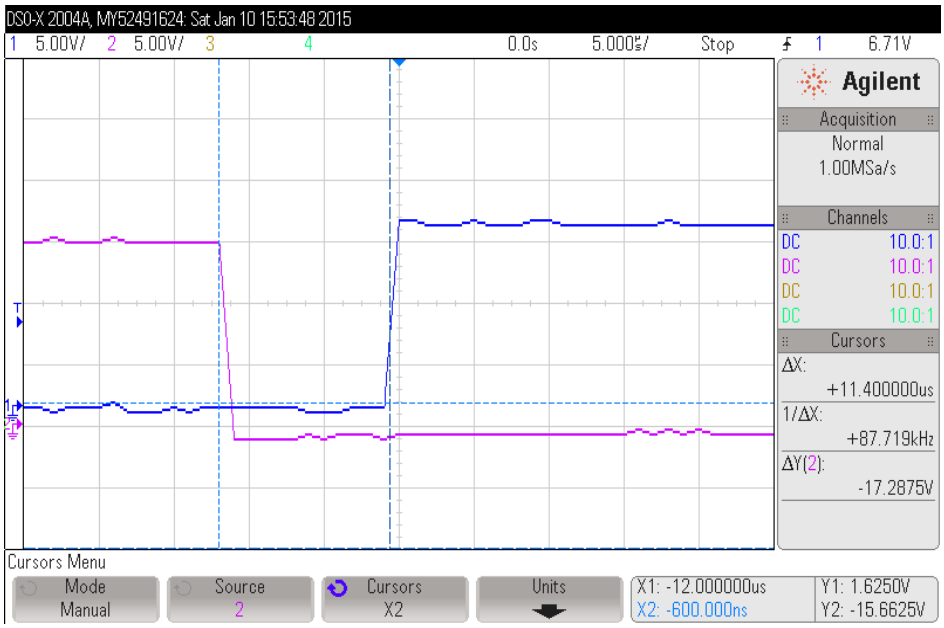

Figure 5.4 Dead band between pulses

D14: Line-Line Output voltage

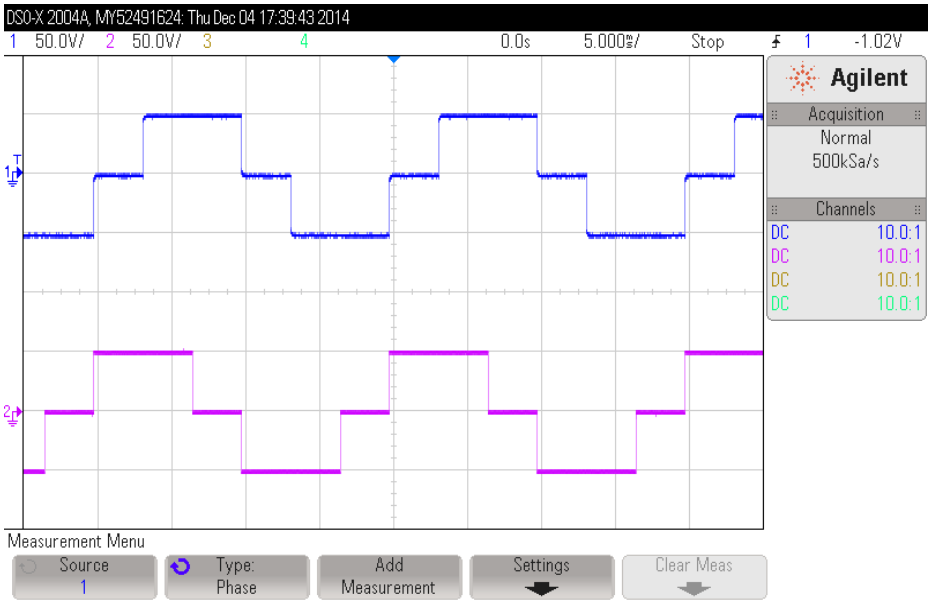

Figure 5.5 Output Voltage between R-Y and Y-B phases

D15: Pulse generation using DSP

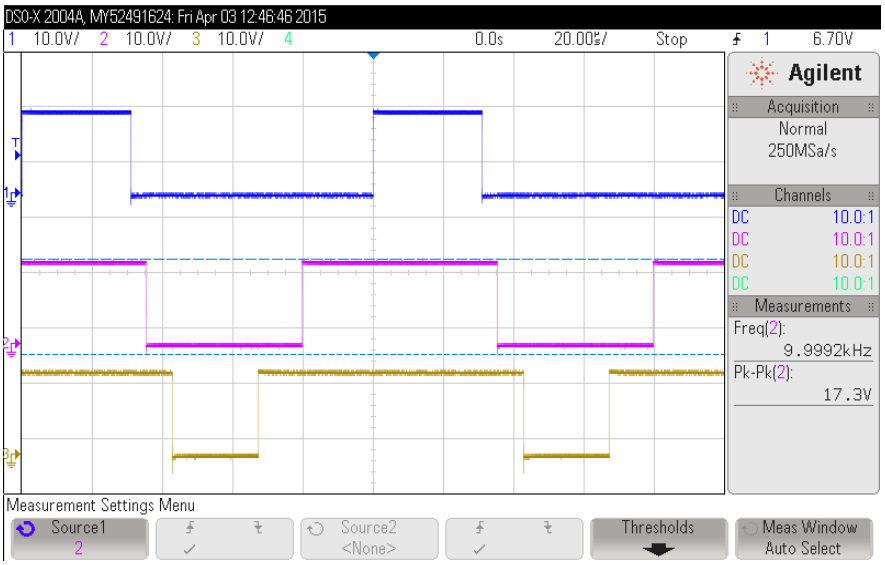

Figure 5. 9 Drive signals for three phase voltage source inverter

D16 : Another view of Pulse Generation using DSP

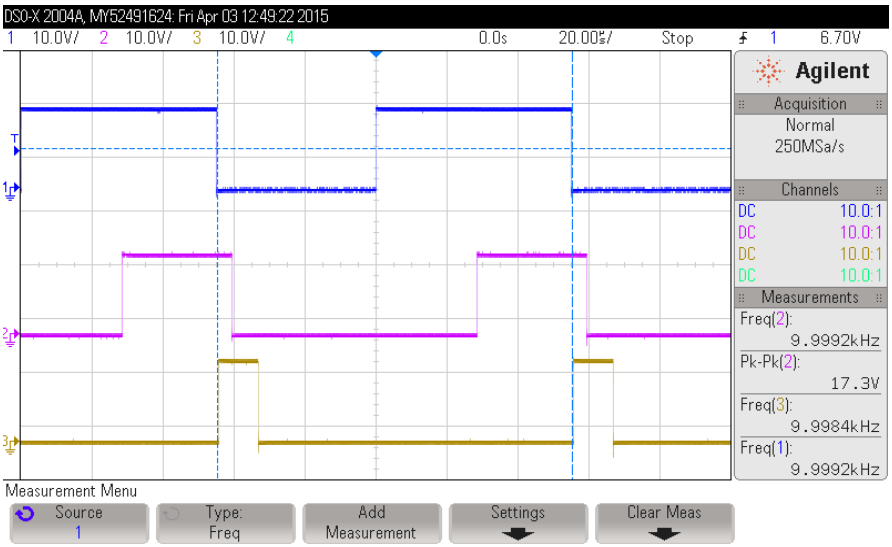

Figure 5.10 High Frequency drive signal

D17:Dead Band between Pulses

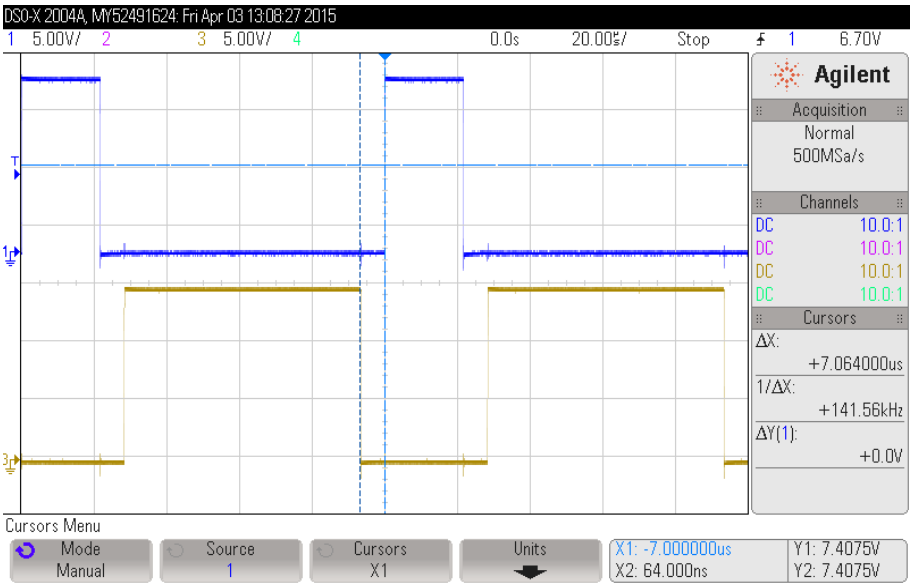

Figure 5. 11 *D*ead band between normal & inverted drive signal

D18: Result of Output voltage

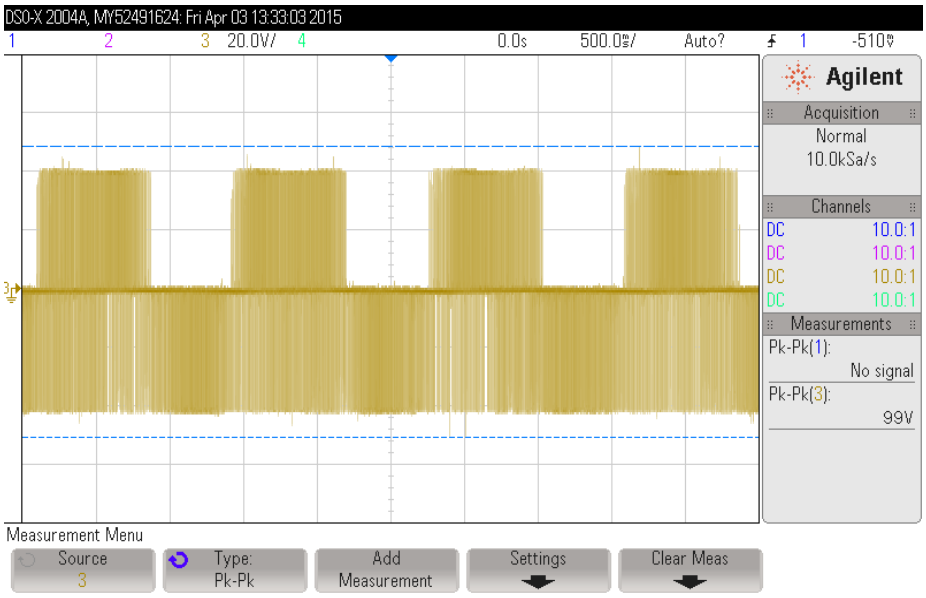

Figure 5. 12 Output voltage of inverter

D19: Insight view of Output voltage

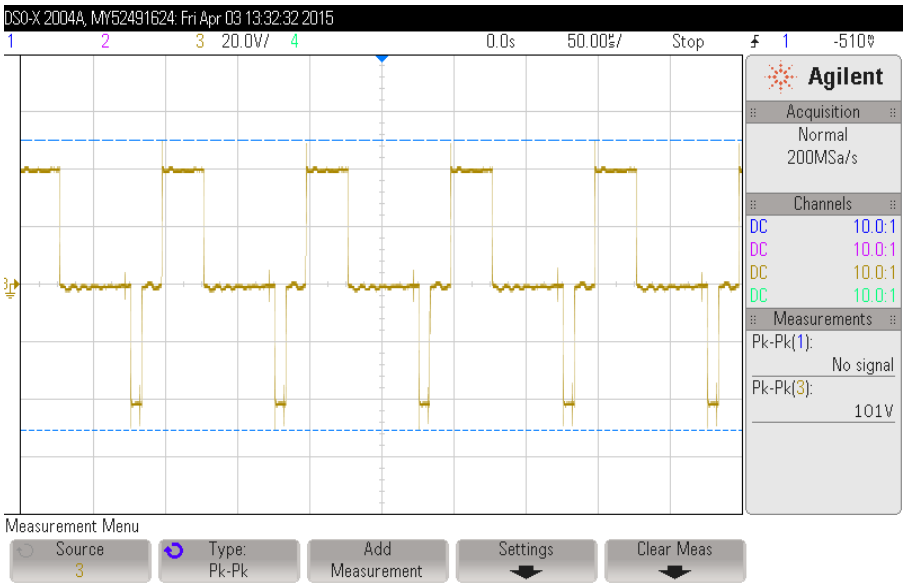

Figure 5.13 Insight view