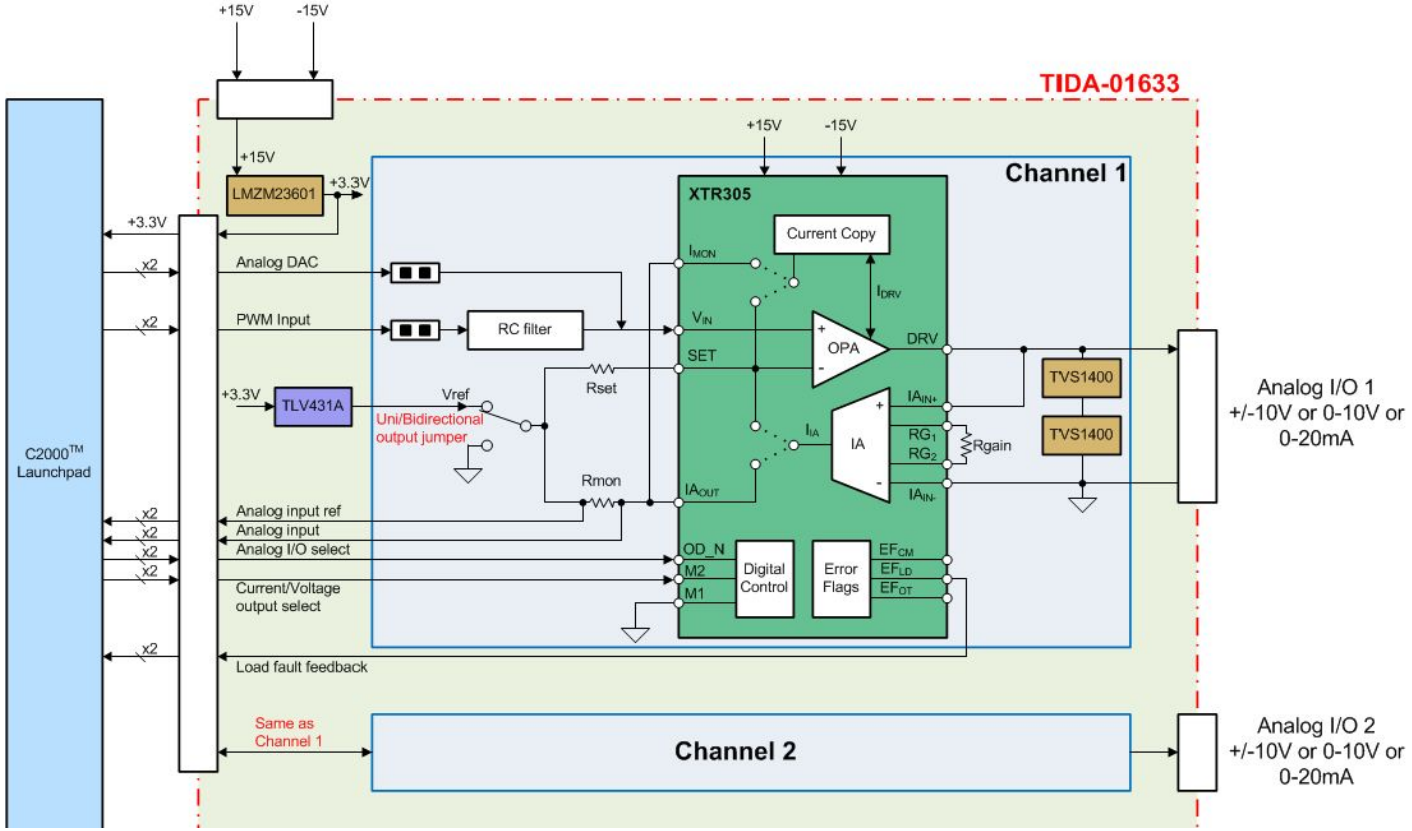
Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A



Orderable: NA	Designed for: Public Release	Mod. Date: 7/2/2018
TID #: 01633	Project Title: Programmable Analog Output	
Number: TIDA-01633 Rev: E2	Sheet Title: Cover Page	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 1 of 4
Drawn By:	File: TIDA-01633_CoverSheet.SchDoc	Size: B
Engineer: PN	Contact: http://www.ti.com/support	

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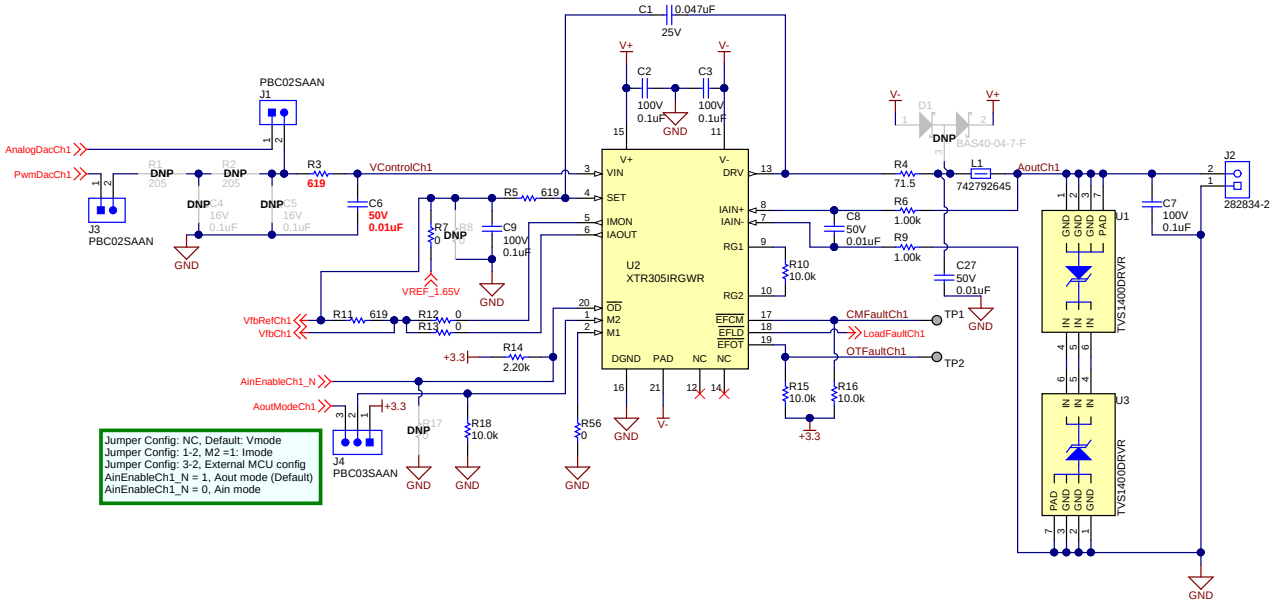
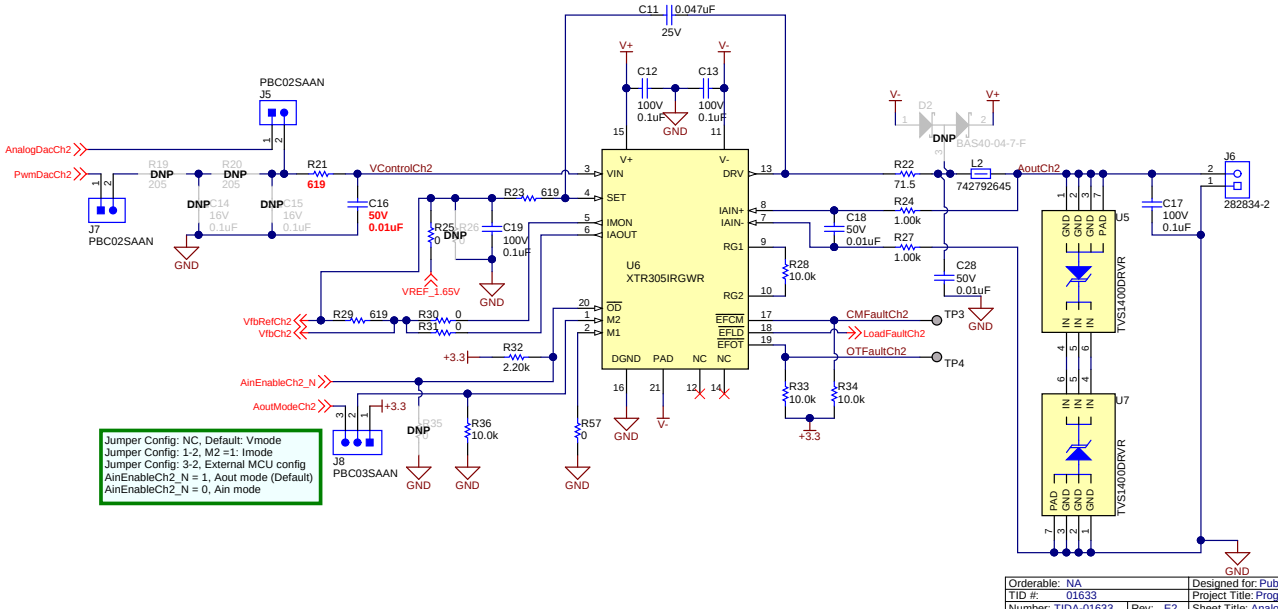
Aout Channel 1



Aout Channel 2



Orderable: NA	Designed for: Public Release	Mod. Date: 5/10/2018
TID #: 01633	Project Title: Programmable Analog Output	
Number: TIDA-01633 Rev: E2	Sheet Title: Analog Output	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 2 of 4
Drawn By:	File: TIDA-01633_AnalogOutput.SchDoc	Size: B
Engineer: PN	Contact: http://www.ti.com/support	

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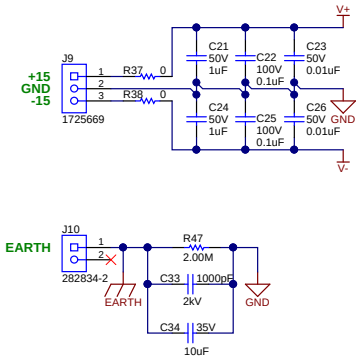
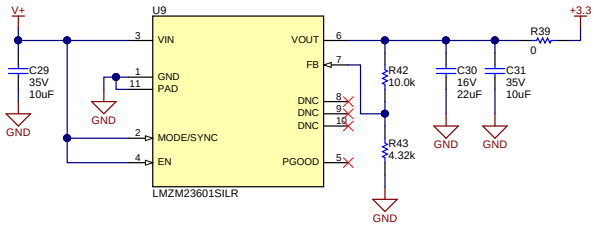
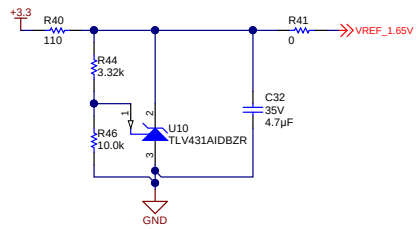
Power Interface



15 V to 3.3 V Conversion



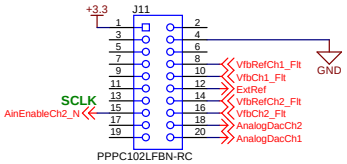
Reference for Bipolar Measurement

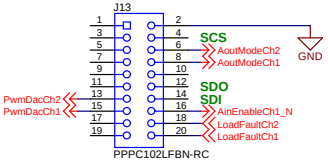


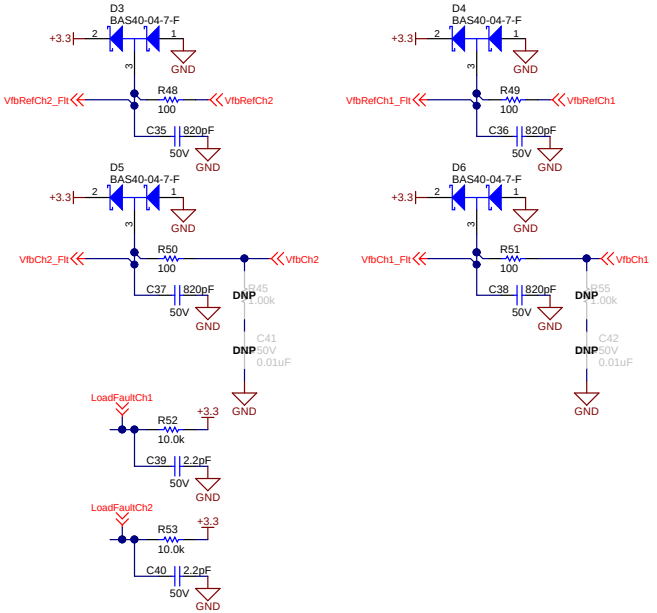
LaunchPad Interface LAUNCHXL-F28379D

Mux Value				J5 Pin	J7 Pin	Mux Value			
X	2	1	0			0	Alt Function	2	X
			3.3V	41	61	5V			
			GPIO95	42	62	GND			
SCIRXDC[1]			GPIO139	43	63	ADCIN15	CMPIN4N		
SCITXDC[1]			GPIO56	44	64	ADCINC5	CMPIN5N		
			GPIO97	45	65	ADCINB5			
			GPIO94	46	66	ADCINA5	CMPIN2N		
SPICLKB[1]			GPIO65	47	67	ADCINC4	CMPIN5P		
			GPIO52[2]	48	68	ADCINB4			
SCLB[1]			GPIO41[2]	49	69	ADCINA4	CMPIN2P		
SDAB[1]			GPIO40[2]	50	70	ADCINA1	DACOUTB		

Mux Value				J8 Pin	J6 Pin	Mux Value			
X	2	1	0			0	1	2	X
		EPWM4A	GPIO6	80	60	GND			
		EPWM4B	GPIO7	79	59	GPIO66			
		EPWM5A	GPIO8	78	58	GPIO131			SD2_C1[1]
		EPWM5B	GPIO9	77	57	GPIO130			SD2_D1[1]
		EPWM6A	GPIO10	76	56	RST			
		EPWM6B	GPIO11	75	55	GPIO63			SPISIMOB[1]
OUTPUTXBAR3[1]			GPIO14	74	54	GPIO64			SPISOMIB[1]
OUTPUTXBAR4[1]			GPIO15	73	53	GPIO26			SD2_D2[1]
			DAC3	72	52	GPIO27			SD2_C2[1]
			DAC4	71	51	GPIO25			OUTPUTXBAR2[1]







Orderable: NA	Designed for: Public Release	Mod. Date: 5/4/2018
TID #: 01633	Project Title: Programmable Analog Output	
Number: TIDA-01633 Rev: E2	Sheet Title: Interfaces and Power	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 3 of 4
Drawn By:	File: TIDA-01633_Interfaces_Power.SchDoc	Size: B
Engineer: PN	Contact: http://www.ti.com/support	

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DNP FID1 DNP FID2 DNP FID3 DNP FID4 DNP FID5 DNP FID6

PCB LOGO
Pb-Free Symbol

PCB LOGO
FCC disclaimer

Logo1
PCB LOGO
WEEE logo

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only

ZZ2
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

Variant/Label Table

Variant	Label Text
001	Analog Input Control Bipolar Output
002	PWM Input Control Bipolar Output

Configuration Table

Input signal	Output polarity	Input signal spec	Reference	Ain	Rset resistor	Rgain resistor	Populate	DNP
External DAC	Unipolar	0 - 2.5 V	0	Single ended	1240	10k	R3,R21 = 1240, C6,C16 = 4700p Mount R8,R26	R7,R25,R2,C5,R1,C4,R20,C15,R19,C14
External DAC (DEFAULT)	Bipolar	0.4 - 2.9 V	1.65 V	Pseudo differential	619	10k	R3 = 619, C6,C16 = 0.01u Mount R7,R25	R8,R26,R2,C5,R1,C4,R20,C15,R19,C14
PWM Signal (100kHz)	Unipolar	3.3 V, 0 - 75.75 % Duty cycle	0	Single ended	1240	10k	R1,R2,R3= 412, C4,C5,C6 = 0.047u Mount R8,R26	R7,R25
PWM Signal (100kHZ)	Bipolar	3.3 V, 12.12% - 87.87 % Duty cycle	1.65 V	Pseudo differential	619	10k	R1,R2,R3= 205, C4,C5,C6 = 0.1u Mount R8,R26	R8,R26

Orderable: NA	Designed for: Public Release	Mod. Date: 6/21/2018
TID #: 01633	Project Title: Programmable Analog Output	
Number: TIDA-01633 Rev: E2	Sheet Title: EVM Hardware	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 4 of 4
Drawn By:	File: TIDA-01633_EVM_Hardware.SchDoc	Size: B
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