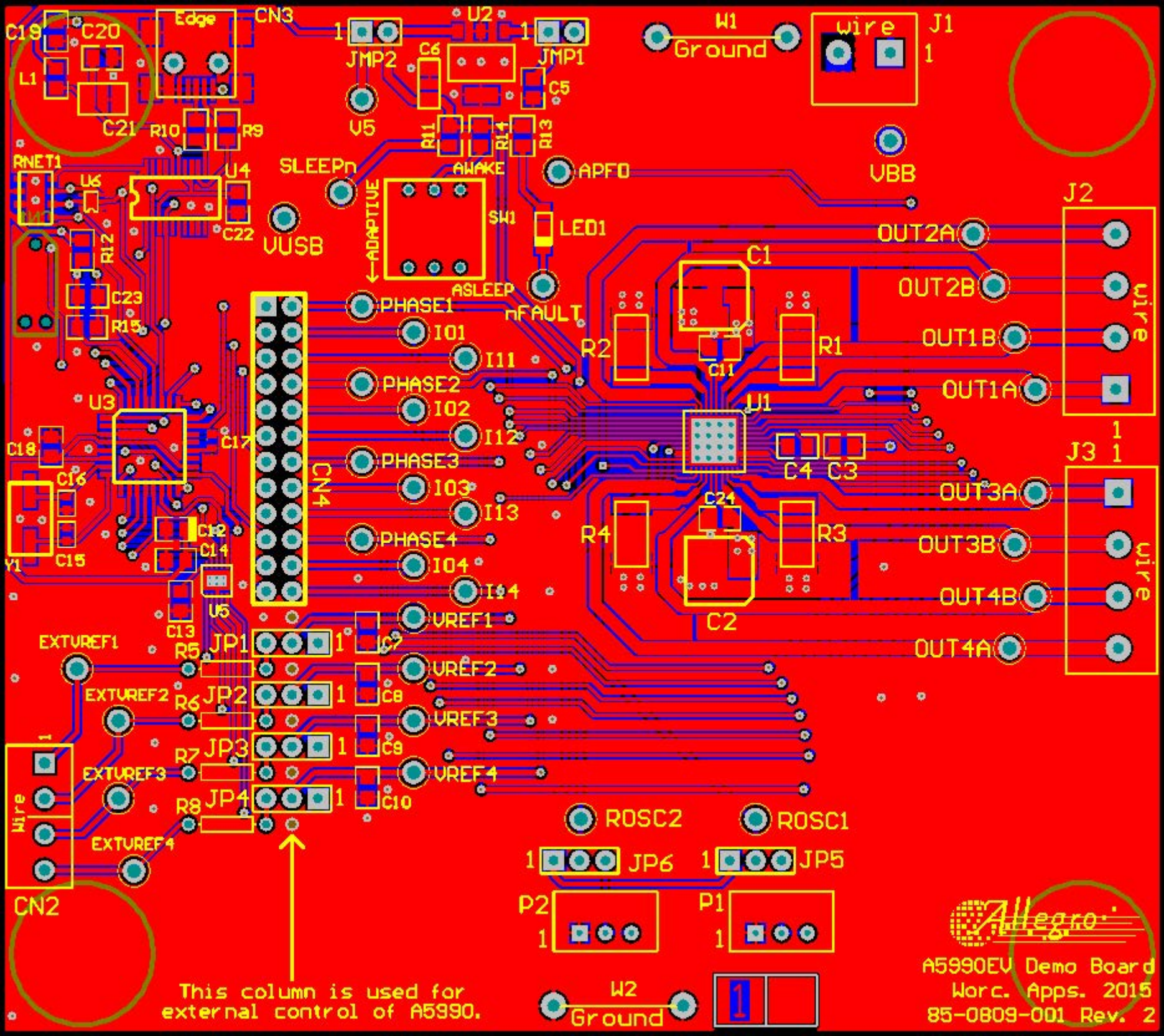


Title			
A5990EV Demo Board APEK			
Size	Number	Revision	
A	85-0809-000-SCH	2	
Date:	10/5/2015	Sheet 1 of 1	
File:	C:\altium\...\A5990EVRev2.SchDoc	Drawn By: Bob Pickett Sr.	

Item	Quantity	Designator	value	Description	PartType	Footprint
1	36	APFD, EXTREF1, EXTREF2, EXTREF3, EXTREF4, I01, I02, I03, I04, I11, I12, I13, I14, nFAULT, OUT1A, OUT1B, OUT2A, OUT2B, OUT3A, OUT3B, OUT4A, OUT4B, PHASE1, PHASE2, PHASE3, PHASE4, ROSC1, ROSC2, SLEEPn, V5, VBB, VREF1, VREF2, VREF3, VREF4, VUSB		Large Test Point	Keystone Electronics 5010; Digikey 5010K-ND	PAD 57 125 TP HB
2	2	C1, C2	47uF	50V Capacitor	Chemi-Con EMZA500ADA470MF80G; Digikey 565-2568-1-ND	UCC F61 Cap
3	3	C3, C4, C5	0.1uF	50V Capacitor	TDK C2012X7R1H104K085AA; Digikey 445-7534-1-ND	0805
4	1	C6	10uF	10V Capacitor	Taiyo Yuden LMK316BJ106KL-T; Digikey 587-1342-1-ND	1206
5	4	C7, C8, C9, C10	1nF	50V Capacitor	Panasonic ECJ-2VB1H102K; Digikey PCC102BNCT-ND	0805
6	2	C11, C24	0.22uF	50V Capacitor	Murata GCM21BR71H224KA37L; Digikey 490-4970-1-ND	0805
7	1	C12	10uF	10V Capacitor	Abracon ATCC-211P-010-106M-T; Digikey ATCC-211P-010-106M-TCT-ND	0805polarized
8	6	C13, C14, C18, C20, C22, C23	0.1uF	16V Capacitor	Murata GRM219R71C104KA01D; Digikey 490-1683-1-ND	0805
9	2	C15, C16	20pF	50V Capacitor	TDK C1608C0G1H200J; Digikey 445-5052-1-ND	0603
10	1	C17	0.1uF	50V Capacitor	TDK C1608X7R1H104K080AA; Digikey 445-1314-1-ND	CAPC1608L
11	1	C19	0.01uF	50V Capacitor	Murata GRM216R71H103KA01D; Digikey 490-1664-1-ND	0805
12	1	C21	4.7uF	16V Capacitor	Taiyo Yuden EMK325B7475KN-T; Digikey 587-1392-1-ND	1210
13	2	CN2		Use two 2-Pin Connectors	On Shore ED555/2DS; Digikey ED1514-ND	4-Pin 3.5mm Screwdown Connector2
14	1	CN3		USB Mini B Recepticle	JAE Electronics DX2R005HN2E700; Digikey 670-1190-1-ND	DX2R005HN2E700
15	1	CN4		Cut from 40-Pin Strip	Tyco 9-146257-0; Digikey A34977-40-ND	24-Pin Dual Row 0.1" Connector
16	4			Bumpon Foot	3M SJ-5303 (CLEAR); Digikey SJ5303-7-ND	Bumpon Foot
17	1	J1		2-Pin Screw Down Connector	On Shore Technology ED120/2DS; Digikey ED1609-ND	2-pin screw down connector2
18	2	J2, J3		4-Pin Screw Down Terminal Block	On Shore ED120/4DS; Digikey ED2227-ND	4-pin screw down connector, 4-pin screw down connector2
19	22 Pins	JMP1, JMP2, JP1, JP2, JP3, JP4, JP5, JP6		Cut pins from 50-pin strip.	Samtec TSW-150-07-T-S; Digikey SAM1035-50-ND	2-pos. shunt, 3-pos. shunt
20	1	L1		Ferrite Bead	Laird MI0805K400R-10; Digikey 240-2389-1-ND	0805
21	1	LED1		Red Surface-mount LED	Lite-On LTST-C150CKT; Digikey 160-1167-1-ND	1206 LED
22	2	P1, P2	50k	1/2W Potentiometer	Bourns 3296W-1-503LF; Digikey 3296W-503LF-ND	Through-hole Trimpot
23	1			pcb	85-0809-001 Rev. 2	
24	8 Pins	QR5, QR6, QR7, QR8		Sockets for R5-R8	Mill-Max 310-43-164-41-001000; Digikey ED6264-ND	
25	4	R1, R2, R3, R4	0.3	1W Resistor	Yageo RL2512FK-070R3L; Digikey 311-0-3TCT-ND	2512 (6432 Metric)
26	4	R5, R6, R7, R8	0	Resistor Lead (0.38mm-0.64mm)	N/A	AXIAL-0.3
27	2	R9, R10	27	1/8W Resistor	Vishay/Dale CRCW080527R0FKEA; Digikey 541-27-0CCT-ND	0805
28	2	R11, R12	10k	1/8W Resistor	Panasonic ERJ-6GEYJ103V; Digikey P10KACT-ND	0805
29	1	R13	2k	1/8W Resistor	Panasonic ERJ-6GEYJ202V; Digikey P2.0KACT-ND	0805
30	1	R14		1/8W Resistor	Do Not Install	0805
31	1	R15	12k	1/8W Resistor	Panasonic ERJ-6ENF1202V; Digikey P12.0KCCT-ND	0805
32	1	RNET1	10k	4 Isolated Resistors	CTS 744C083103JP; Digikey 744C083103JPCT-ND	CTS 744 Series
33	1	SW1		Dual SPDT Switch	Grayhill 76STC02T; Digikey 76STC02T-ND	76STC02T
34	1	U1		Quad DMOS Full Bridge PWM Motor Driver	A5990xEV-T	40EV 6x6 QFN
35	1	U2	5V	Linear Voltage Regulator	National LM2936MP-5.0/NOPB; Digikey LM2936MP-5.0CT-ND	SOT223
36	1	U3		8-Bit Microcontroller	Atmel ATMEGA328P-AUR; Digikey ATMEGA328P-AURCT-ND	32-TQFP (7x7)
37	1	U4		USB to UART IC	FTDI FT231XS-R; Digikey 768-1129-1-ND	SSOP-20
38	1	U5		Quad 12-Bit DAC	Analog Devices AD5624RBCPZ-3REEL7; Digikey AD5624RBCPZ-3REEL7CT-ND	10-Pin EE w/slugs
39	1	U6		Dual N-CH Fet's	Rohm UM6K1NTN; Digikey UM6K1NTNCT-ND	SOT-363
40	2	W1, W2		22 Gauge Buss Wire (300mils above pcb)		Scope Ground
41	1	Y1	16MHz	16MHz Crystal Oscillator(20pF Caps)	ECS ECS-160-20-3X-TR; Digikey XC1776CT-ND	ECS CSM-3X



This column is used for external control of A5990.



A5990EV Demo Board
 Worc. Apps. 2015
 85-0809-001 Rev. 2

