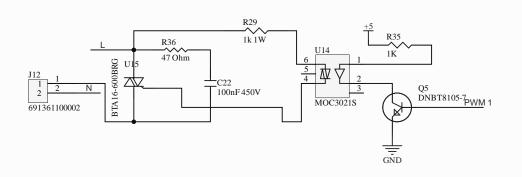
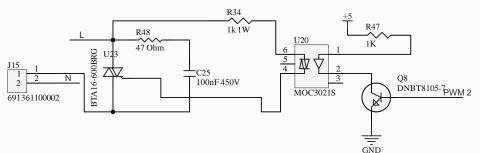


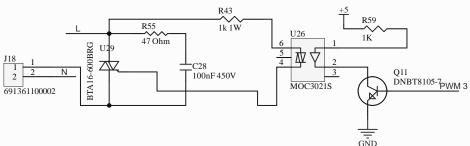
## **OUTPUT 1**



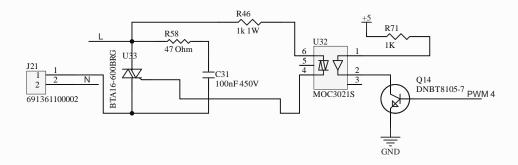
## OUTPUT 2



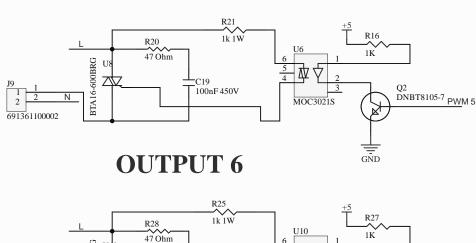
# OUTPUT 3

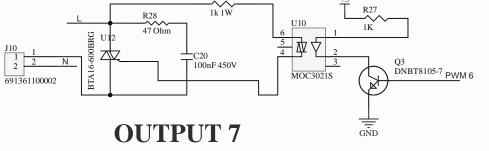


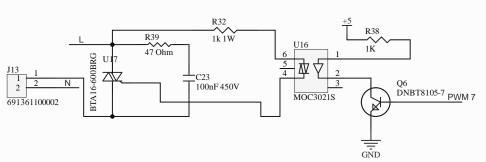
## OUTPUT 4



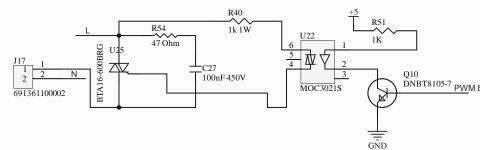
#### OUTPUT 5



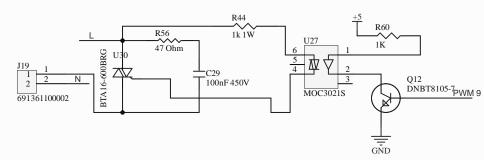




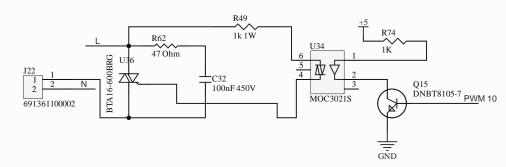
## OUTPUT 8



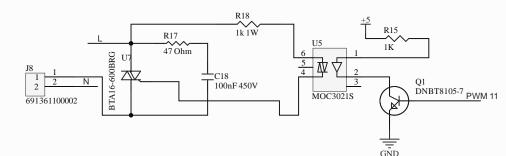
## OUTPUT 9



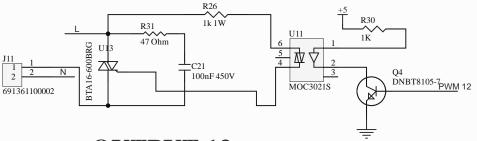
## **OUTPUT 10**



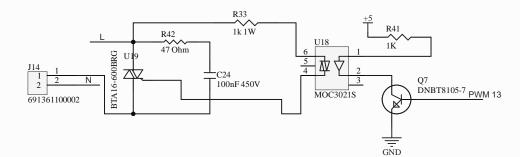
## **OUTPUT 11**



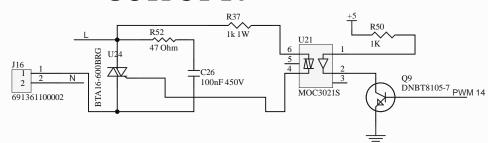
## **OUTPUT 12**



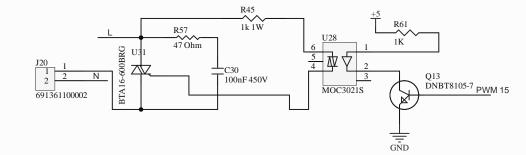
## **OUTPUT 13**



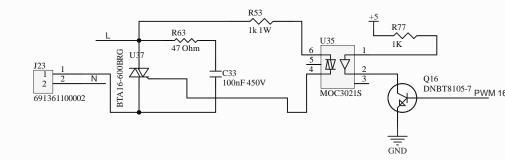
#### **OUTPUT 14**

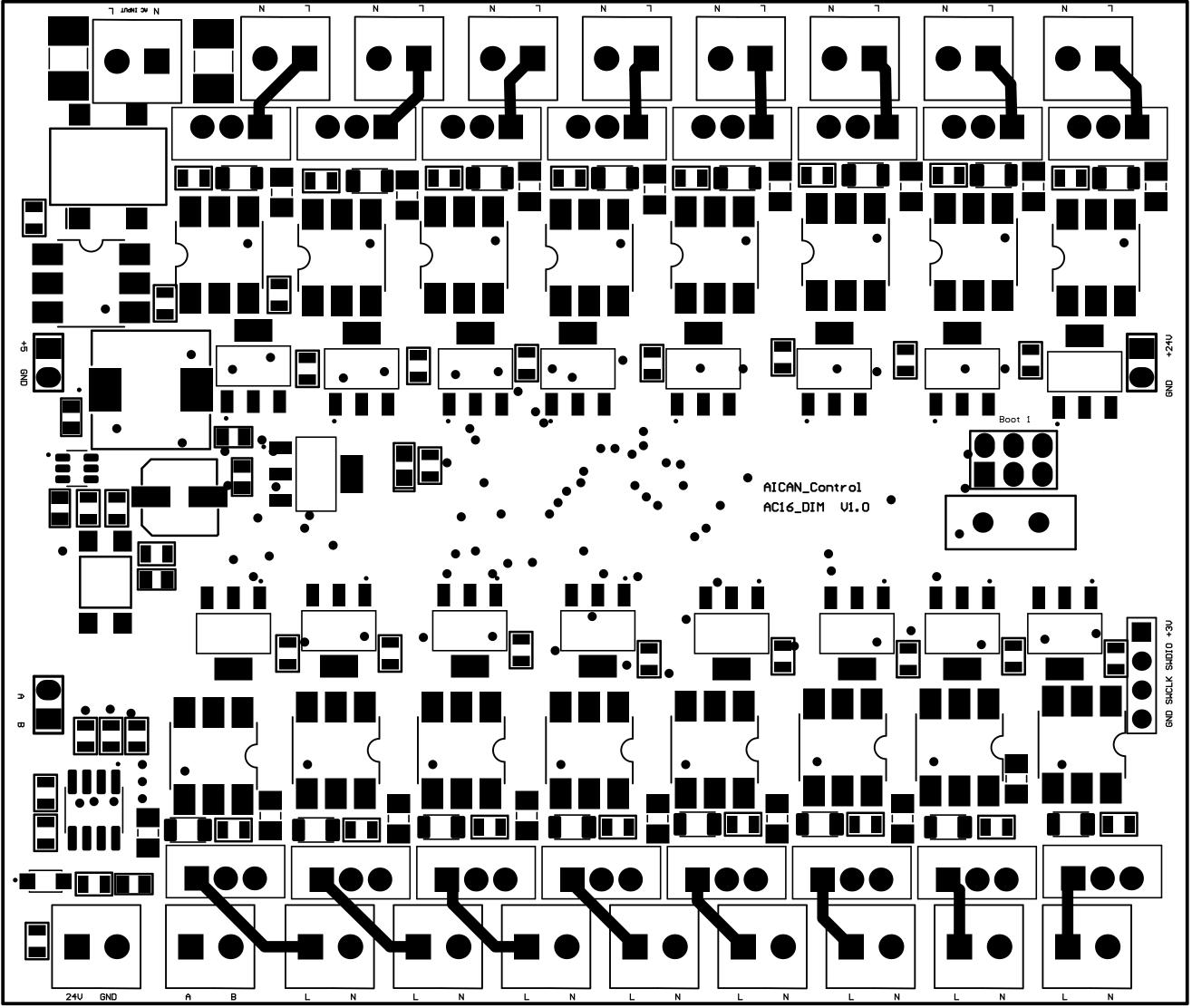


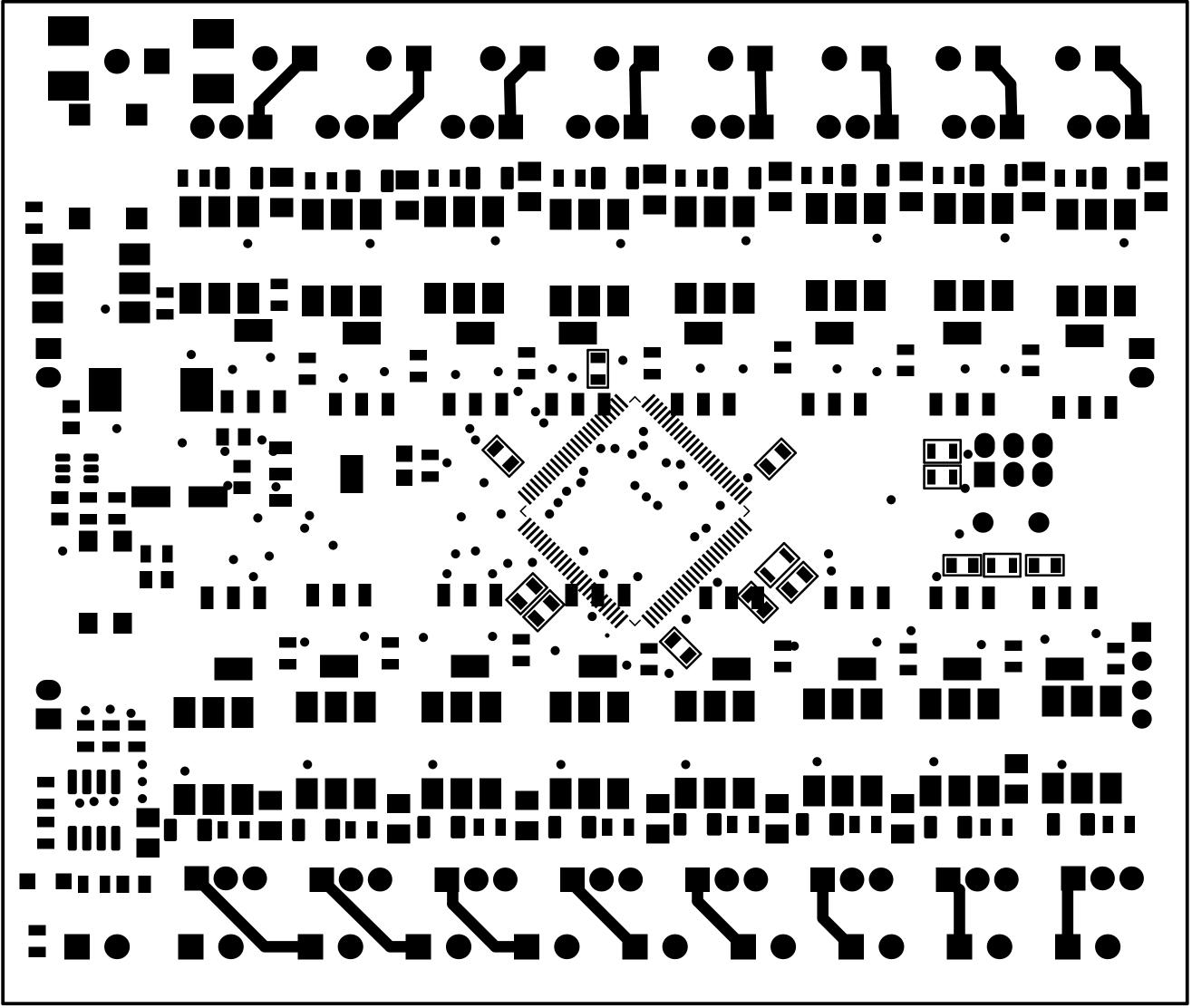
## **OUTPUT 15**



#### **OUTPUT 16**







Designator	Comment	Description	Footprint	Quantity	Manufacturer	Manufacturer Part Number
C1, C4, C6, C7	22pF	Cap Ceramic 22pF 50V COG 0.25pF SWID	CAP_0805		KEMET	C0805C220C5GA
C2, C8, C10, C16	100_nf	0805 125°C Paper T/R Cap Ceramic 0.1uF 50V X7R 10% SMD	CAP_0805	4	TDK	C2012X7R1H104 25AE
		0805 125°C Blister Plastic T/R Cap Ceramic 2 2uF				25AE C2012JB1H225K
C3	2.2uF 50V	50V JB 10% SMD 0805 85°C Blister Plastic T/R	CAP_0805	1	TDK	C2012JB1H225K SAB
C5	47uF 25V	贴片铝电解电容 47uF ±20% 25V 1000hrs#85°C AEC_D6.3x5.4mm_SM CERAMIC	CAP_ALU_D_Size	1	Panasonic	EEE-1EA470WP
09, C11, C12, C13, C14, C15, C17	10uF	CAPACITOR, 10UF, 16V, XSR, 20%, 0805, FULL REEL; Product Range:C Series; Capacitance:10 F; Capacitance Tolerance: 20%; Distortis	CAP_0805	7	TDK	C2012XSR1C106/ 125AC
C18. C19. C20. C21.		Voltage Rating:16V; Voltage Rating:16V; Ceramic Capacitor Case:0805 (2012 Metric): MSL:-90HS Compliant: Yes Multilayer Ceramic				
C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33	100nF 450V red	Capacitor, 0.1 uF, 450 V, ± 10%, X7T, 1206 [3216 Metric] Led SMT Red 0805	CAP 1206 LED_RED_0805	16	TDK Osram Opto	CGASL4X7T2W1 K160AA LSR976-NR-1
		Tape Zener Diode 24 V 500		'		LSR976-NR-1
D3 D4	MMSZS2S2BT1GOSCT RTT410	mW ±5% Surface Mount SOD-123	SOD-123 RT410	1	onsemi Diodes	RTT410
J1, J5, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17, J18, J19, J20, J21, J22, J23	691361100002	3611 Series 3.5mm Pitch Straight Pluggable Term Block; Plug; Cable Mount; 2 Way	Screw Terminal 3.5mm	19	Wurth Electronics	691361100002
12, 13, 14	75160-327-02LF	Conn Unshrouded Header HDR 2 POS 2.54mm Solder ST Thru-Hole Poly Bag	HDR 1x2	3	Amphenol ICC / FCI	75160-327-02LF
36	67997-106HLF	Conn Unshrouded Header HDR 6 POS 2.54mm Solder ST Top Entry Thru-Hole BergStik* Bulk	MALE_HDR_3X2_2.54 mm	1	Amphenol ICC / FCI	67997-106HLF
JP1	HDR 1X4	Conn Unshrouded Header HDR 4 POS 2.54mm Solder ST Thru-Hole Bag	HDR 1X4	1	Amphenol ICC	68001-204HLF
11	10uH	Inductor Power Shielded Wirewound 10uH 20% 100KHz Ferrite 2.7A 0.0440hm DCR 4040 T/R	B952AS-H-100M-P3	1	Murata	#8952AS-H- 100M-P3
01, 02, 03, 04, 05, 06, 07, 08, 09, 010, 011, 012, 013, 014, 015, 016 R1, R15, R16, R23,	DNBT8105-7	TRANS NPN 60V 1A SOTZ3-3	SOT 223 3	16	Diodes Zetex	DNBT8105-7
R1, R15, R16, R23, R27, R30, R35, R38, R41, R47, R50, R51, R59, R60, R61, R71, R74, R77	1K	贴片电阻 10000 ± 1.00% 0.125W ± 100ppm/*C 0805	R_0805	18	Yageo	RC0805FR-071KI
R2	2.2K	Res High Precision Thin Film 0805 2.2k Ohm 0.1% 1/8W ±15ppm/°C Molded Paper T/R	R_0805	1	Yageo	RT08058RC072K
R3	10 M Ohm	貼片电阻 100000000 ± 1.00% 0.125W ± 100ppm/で 0805	R_0805	1	Yageo	RC0805FR-0710
R4, R13, R14	100K	Ib A 电阻 1000000 ± 1.00% 0.125W ± 100ppm/°C 0805	R_0805	3	Yageo	RC0805FR- 07100KL
R5	13.7K	Res Thick Film 0805 13.7K Ohm 1% 1/8W ±100ppm/*C SMD Paper T/R 报 申用 100000 ±	R_0805	1	Yageo	RC0805FR- 0713K7L
R6, R7, R8, R12, R19	10K	1.00% 0.125W ± 100ppm/°C 0805 Res Thin Film 0805	R_0805	5	Yageo	RC0805FR-07108
R9, R11	25k	25K Ohm 0.1% 1/10W ±25ppm/*C Molded SMD SMD Paper T/R	R_0805	2	TE Connectivity	1614911-6
R10	75 ohm	Anti-Sulfurated Chip Resistor Automotive Grade Thick Film 0805 750hm 5% Paper T/R	R_0805	1	Yageo	AA0805JR-0775J
R17, R20, R28, R31, R36, R39, R42, R48, R52, R54, R55, R56, R57, R58, R62, R63	47 Ohm	Res Thick Film 1206 47 Ohm 1% 1/2W ±200ppm/°C Molded SMD Paper T/R	R 1206	16	TE Connectivity	CRGH1206F47R
R18, R21, R25, R26, R29, R32, R33, R34, R37, R40, R43, R44, R45, R46, R49, R53	Ik IW		R_0805	16	TE Connectivity	RA73F2A1K0BT0
R22, R24	47k 3w	Res Thick Film 2512 47K Ohm 5% 3W ±100ppm/C Pad SMD T/R	R2512	2	TE Connectivity CGS	352247KJT
SW1	TL3305AF160QG	TL3305A Series SPST 12 V 4.5 x 4.5 mm 160 gf Top Actuated SMT Tactile Switch ARM® Cortex®-M3	SW_PB_SMD	1	E-Switch	TL3305AF160QG
uı	STM32F103VBT6	STM32 F1 Microcontroller IC 32- Bit 72MHz 128KB (128K x 8) FLASH SIMPLE SWITCHER*	STM32F103VBT6	1	STMicroelectronic s	STM32F103VBT
U2	LMR514200DDCR	power converter 4.5- V to 36-V, 2-A, synchronous buck with 40-µA IO 6-SOT- 23-THIN -40 to 150	SOT 23-6	1	Texas Instruments	LMR51420XDDC
U3	LD1117533CTR	Linear Voltage Regulator IC Positive Fixed 1 Output 3.3V 800mA SOT-223	SOT 223 3	1	STMicroelectronic s	LD1117533CTR
U4	MAX485CSA+T	1/1 Transceiver Half RS422, RS485 8-SOIC	8 SOIC	1	Maxim	MAX485CSA+
U5, U6, U10, U11, U14, U16, U18, U20, U21, U22, U26, U27, U28, U32, U34, U35	MOC3021S	MOC302x Series 1 Channel 400 V 5000	SMD 6	16	Vishay Lite-On	MOC3021S
U7, U8, U12, U13, U15, U17, U19, U23, U24, U25, U29, U30, U31, U33, U36, U37	BTA16-600BRG	TRIAC Standard 600V 16A Through Hole TO- 220AB	BAT16	16		
U9	MCT2ESM	DC-IN 1-CH Transistor With Base DC-OUT 6- Pin PDIP SMD Crystal BMHz ±30ppm	SMD 6	1	ON Semiconductor / Fairchild	MCTZESM
YI	ECS-80-20-4X	Crystal BWHZ ±50ppm (Tol) ±50ppm (Stability) 20pF FUND 800hm 2-Pin HC- 49/USX Thru-Hole Bulk Crystal 0.032768MHz	XTAL_8_MHZ	1	ECS International	ECS-80-20-4X
	ABS07-32.768KHZ-6-T	Crystal 0.032768MHz ±20ppm (Tol) 6pF	XTAL_32.768	I	Abracon	ABS07-32.768KH