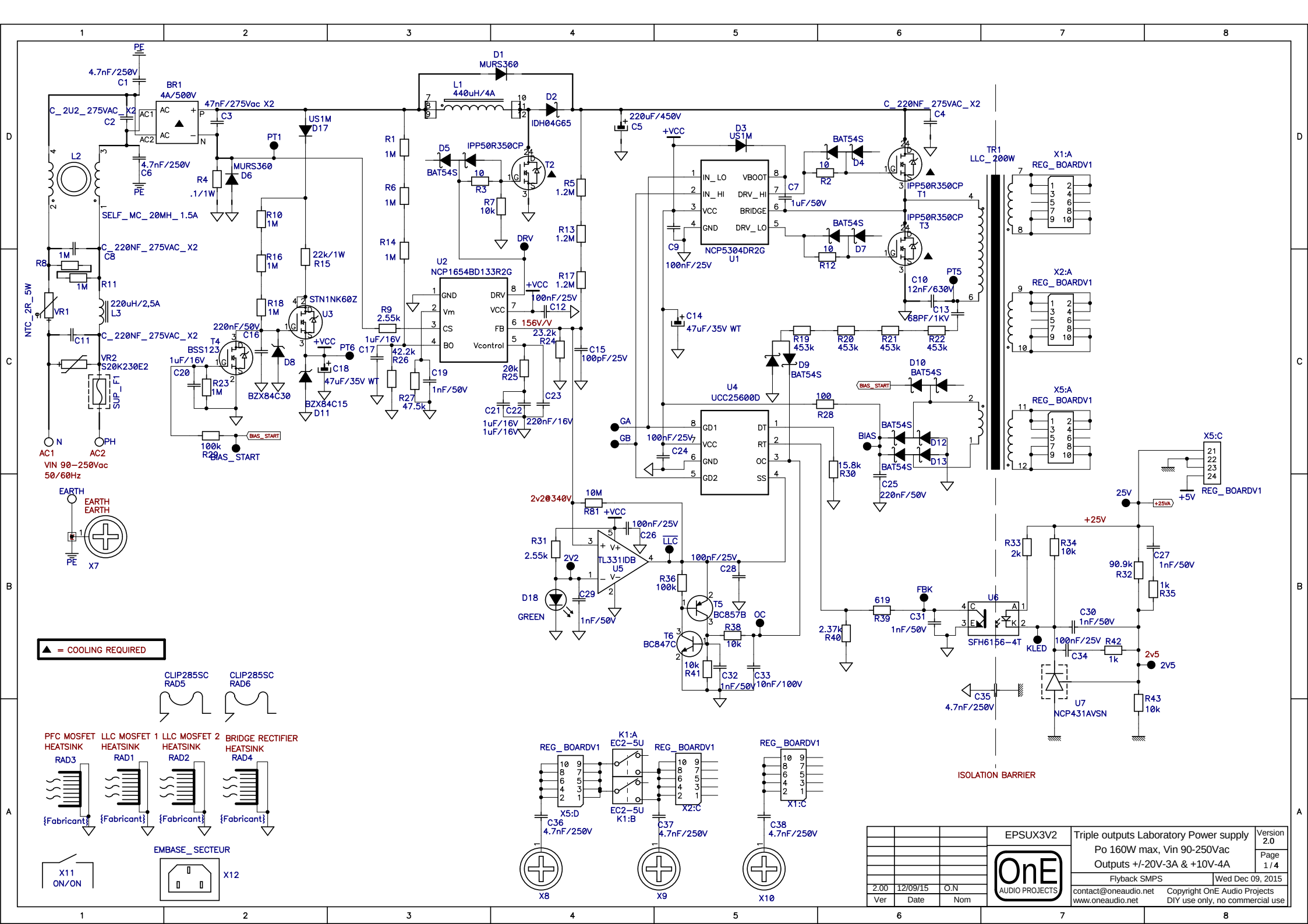
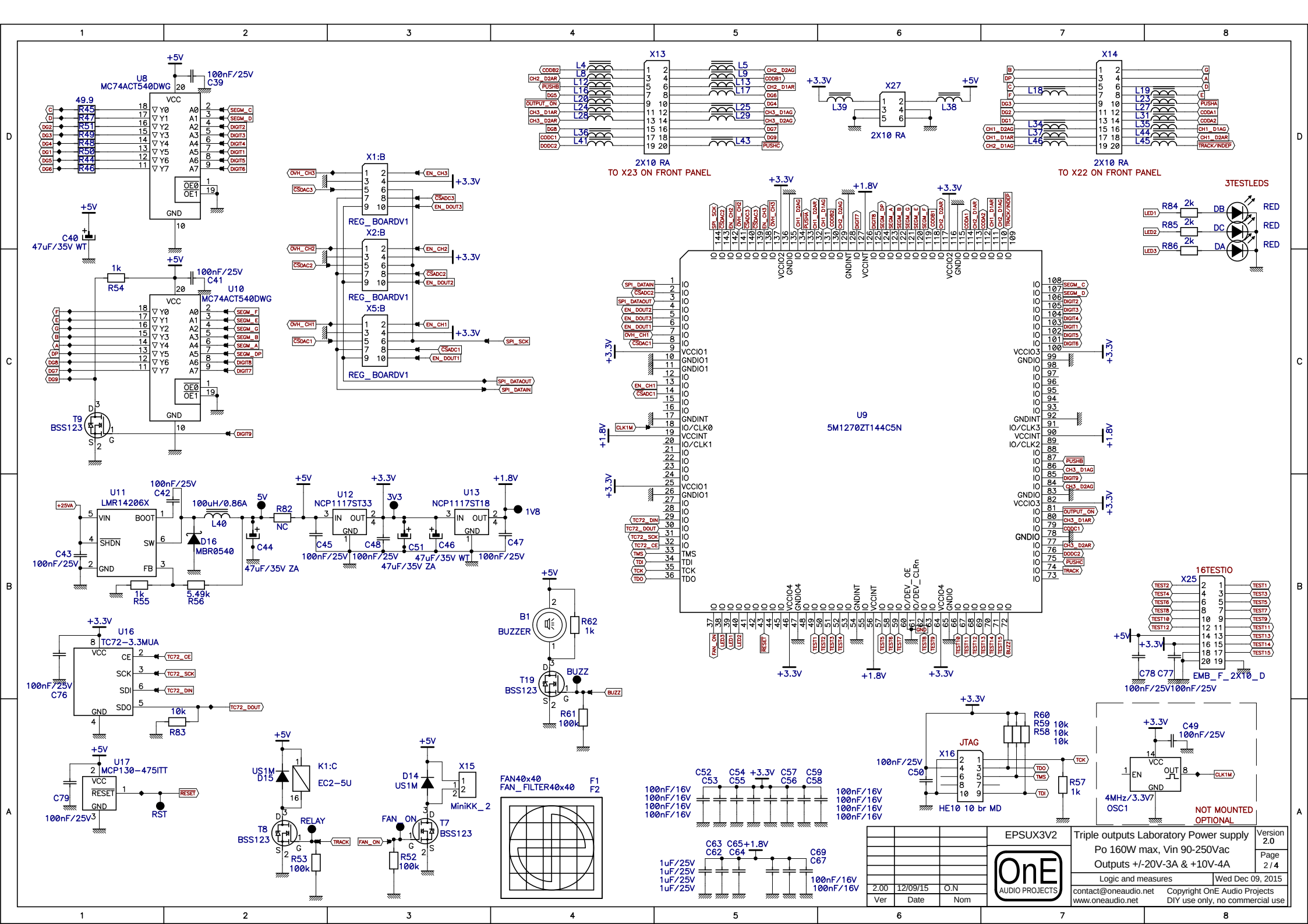
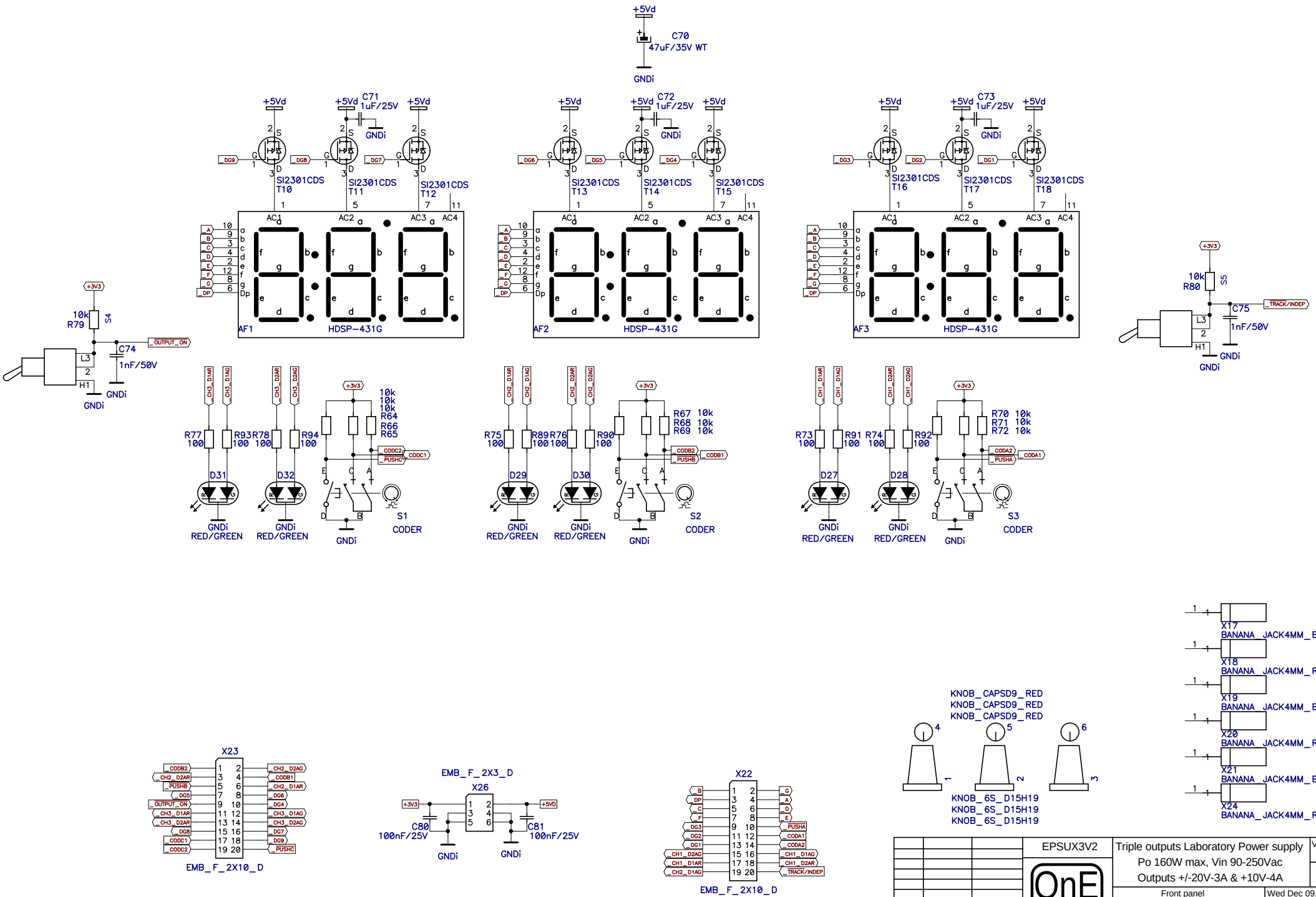


				EPSUX3V2	Triple outputs Laboratory Power supply Po 160W max, Vin 90-250Vac Outputs +/-20V-3A & +10V-4A
				OnE AUDIO PROJECTS	Version 2.0 Page 1 / 4
					Flyback SMPS | Wed Dec 09, 2015
2.00	12/09/15	O.N			contact@oneaudio.net www.oneaudio.net
Ver	Date	Nom			Copyright OnE Audio Projects DIY use only, no commercial use


U8
MC74ACT540DWG
C39
100nF/25V
C40
47uF/35V WT
R45
R47
R51
R49
R48
R50
R44
R46
49.9
U10
MC74ACT540DWG
C41
R54
1k
T9
BSS123
X1:B
REG_BOARDV1
X2:B
X5:B
X13
2X10 RA
TO X23 ON FRONT PANEL
X27
X14
2X10 RA
TO X22 ON FRONT PANEL
3TESTLEDS
R84 2k
R85 2k
R86 2k
DB
DC
DA
RED
U9
5M1270ZT144C5N
U11
LMR14206X
C42
100uF/0.86A
L40
D16
MBR0540
C43
C44
47uF/35V ZA
R55 1k
R56 5.49k
R82
NC
U12
NCP1117ST33
3V3
C45
C48
C51
U13
NCP1117ST18
1V8
C46
47uF/35V WT
C47
U16
TC72-3.3MUA
C76
R83 10k
U17
MCP130-475ITT
C79
RST
B1
BUZZER
R62 1k
T19
BSS123
BUZZ
R61 100k
US1M
D15
K1:C
EC2-5U
T8
BSS123
RELAY
R53 100k
TRACK
D14
US1M
X15
MiniKK_2
T7
BSS123
R52 100k
FAN_ON
FAN40x40
FAN_FILTER40x40
F1
F2
JTAG
X16
HE10 10 br MD
R60
R59 10k
R58 10k
10k
R57 1k
C50
C49 100nF/25V
4MHz/3.3V7
OSC1
NOT MOUNTED
OPTIONAL
16TESTIO
X25
EMB_F_2X10_D
C52 C53 C54 C55 C57 C56 C59 C58
100nF/16V
C63 C65 C62 C64 C69 C67
1uF/25V
100nF/16V
EPSUX3V2
Triple outputs Laboratory Power supply
Po 160W max, Vin 90-250Vac
Outputs +/-20V-3A & +10V-4A
Version 2.0
Page 2/4
Logic and measures
Wed Dec 09, 2015
2.00 12/09/15 O.N
Ver Date Nom
OnE AUDIO PROJECTS
contact@oneaudio.net
www.oneaudio.net
Copyright OnE Audio Projects
DIY use only, no commercial use

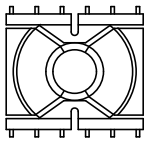


			EPSUX3V2	Triple outputs Laboratory Power supply Po 160W max, Vin 90-250Vac Outputs +/-20V-3A & +10V-4A
			OnE AUDIO PROJECTS	Version 2.0 Page 3 / 4
				Front panel / Wed Dec 09, 2015
2.00	12/09/15	O.N		contact@oneaudio.net www.oneaudio.net
Ver	Date	Nom		Copyright OnE Audio Projects DIY use only, no commercial use

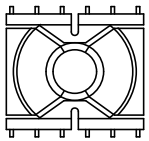
Power Table									
Ref Des	Device(Type)	Package	GND	+5V	+3.3V	DGND	+1.8V	+VCC	+25VA
U1	NCP5304DR2G	SOIC8_N				4		3	
U2	NCP1654BD133R2G	SOIC8_N				1		7	
U3	STN1NK60Z	SOT223						3	
U4	UCC25600D	SOIC8_N				6		7	
U5	TL331IDB	SOT23_5L				2		5	
U6	SFH6156-4T	DIP4_N_CMS				3			
U7	NCP431AVSN	SOT23_3L	3						
U8	MC74ACT540DWG	SOIC20_L	10,19,1	20					
U9	5M1270ZT144C5N	QFP144_0.5MM	61,99,92,83,78,115,128,60,11,54,10,17,26,135,65,47		100,82,116,136,64,46,25,9		90,19,126,56		
U10	MC74ACT540DWG	SOIC20_L	10,19,1	20					
U11	LMR14206X	SOT23_6L	2						5,4
U12	NCP1117ST33	SOT223	1	3	4,2				
U13	NCP1117ST18	SOT223	1		3		4,2		
U16	TC72-3.3MUA	MSOP8	4		8				
U17	MCP130-475ITT	SOT23_3L	3	2					

Logic and measures[1A]	$\overline{RESET}$
Logic and measures[3D]	$\overline{OVH_CH3}$
Logic and measures[3D]	$\overline{OVH_CH2}$
Logic and measures[3C]	$\overline{OVH_CH1}$
Logic and measures[3D]	$\overline{CS}$DAC3
Logic and measures[3C]	$\overline{CS}$DAC2
Logic and measures[3C]	$\overline{CS}$DAC1
Logic and measures[3D]	$\overline{CS}$ADC3
Logic and measures[3C]	$\overline{CS}$ADC2
Logic and measures[3C]	$\overline{CS}$ADC1
Logic and measures[2A]	TRACK
Logic and measures[1B]	TC72_SCK
Logic and measures[2A]	TC72_DOUT
Logic and measures[1B]	TC72_DIN
Logic and measures[1B]	TC72_CE
Logic and measures[3C]	SPI_SCK
Logic and measures[3C]	SPI_DATAOUT
Logic and measures[3C]	SPI_DATAIN
Logic and measures[2C]	SEGM_G
Logic and measures[2C]	SEGM_F
Logic and measures[2C]	SEGM_E
Logic and measures[2C]	SEGM_DP
Logic and measures[2D]	SEGM_D
Logic and measures[2D]	SEGM_C
Logic and measures[2C]	SEGM_B
Logic and measures[2C]	SEGM_A
Logic and measures[1C]	G
Logic and measures[3A]	FAN_ON
Logic and measures[1C]	F
Logic and measures[3D]	EN_DOUT3
Logic and measures[3C]	EN_DOUT2
Logic and measures[3C]	EN_DOUT1
Logic and measures[3D]	EN_CH3
Logic and measures[3D]	EN_CH2
Logic and measures[3C]	EN_CH1
Logic and measures[1C]	E
Logic and measures[1C]	DP
Logic and measures[2C]	DIGIT9
Logic and measures[2C]	DIGIT8
Logic and measures[2C]	DIGIT7
Logic and measures[2D]	DIGIT6
Logic and measures[2D]	DIGIT5
Logic and measures[2D]	DIGIT4
Logic and measures[2D]	DIGIT3
Logic and measures[2D]	DIGIT2
Logic and measures[2D]	DIGIT1
Logic and measures[1C]	DG9
Logic and measures[1C]	DG8
Logic and measures[1C]	DG7
Logic and measures[1D]	DG6
Logic and measures[1D]	DG5
Logic and measures[1D]	DG4
Logic and measures[1D]	DG3
Logic and measures[1D]	DG2
Logic and measures[1D]	DG1
Logic and measures[1D]	D
Logic and measures[8A][4C]	CLK1M
Logic and measures[1D]	C
Logic and measures[4B]	BUZZ
Logic and measures[1C]	B
Logic and measures[1C]	A
Sheets	Net Name
Net Index Table	

Spare Gate Table		
Last Used	Not Used	Spare Gates
1V8	1V1, 1V2, 1V3, 1V4, 1V5, 1V6, 1V7	
2V5	2V1, 2V3, 2V4	
3V3	3V1, 3V2	
5V		
25V		
AF3		
B1		
BIAS		
BIAS_START		
BR1		
BUZZ		
C81	C60, C61, C66, C68	
D32	D19, D20, D21, D22, D23, D24, D25, D26	
DA		
DB		
DC		
DRV		
EARTH		
F2		
FAN_ON		
FBK		
GA		
GB		
K1		
KLED		
L46	L6, L7, L10, L11, L14, L15, L21, L22, L26, L30, L32, L33, L42	
N		
OC		
OSC1		
PH		
PT6	PT2, PT3, PT4	
R94	R37, R63, R87, R88	
RAD6		
RELAY		
RST		
S5		
SUP_F1		
T19		
TR5		
U17	U14, U15	
VR2		
X27	X3, X4, X6	
LLC		



PQ2620_CORE_N87
PQ2620_COILFORMER
TR2
TR3



PQ3230_CORE_N87
PQ3230_COILFORMER
TR5
TR4

2.00	12/09/15	O.N
Ver	Date	Nom

EPSUX3V2

OnE AUDIO PROJECTS

Triple outputs Laboratory Power supply
Po 160W max, Vin 90-250Vac
Outputs +/-20V-3A & +10V-4A

Version 2.0

Page 4 / 4

Tables 2

Wed Dec 09, 2015

contact@oneaudio.net
www.oneaudio.net

Copyright OnE Audio Projects
DIY use only, no commercial use