

NOTES:

- ALL RESISTORS THT 0,6W; $\pm 1\%$; $\varnothing 2,5 \times 6,8 \text{mm}$; UNLESS NOTED
- for more information, please see sheet no.3.

TITLE: DW300 Softstart, signaling, mute and protection		
Design by: DWG version by "donpetru"	Company or website: www.tehniun-azi.ro	
Date: 25-11-2012	Rev.:	Sheet: 2 of 6

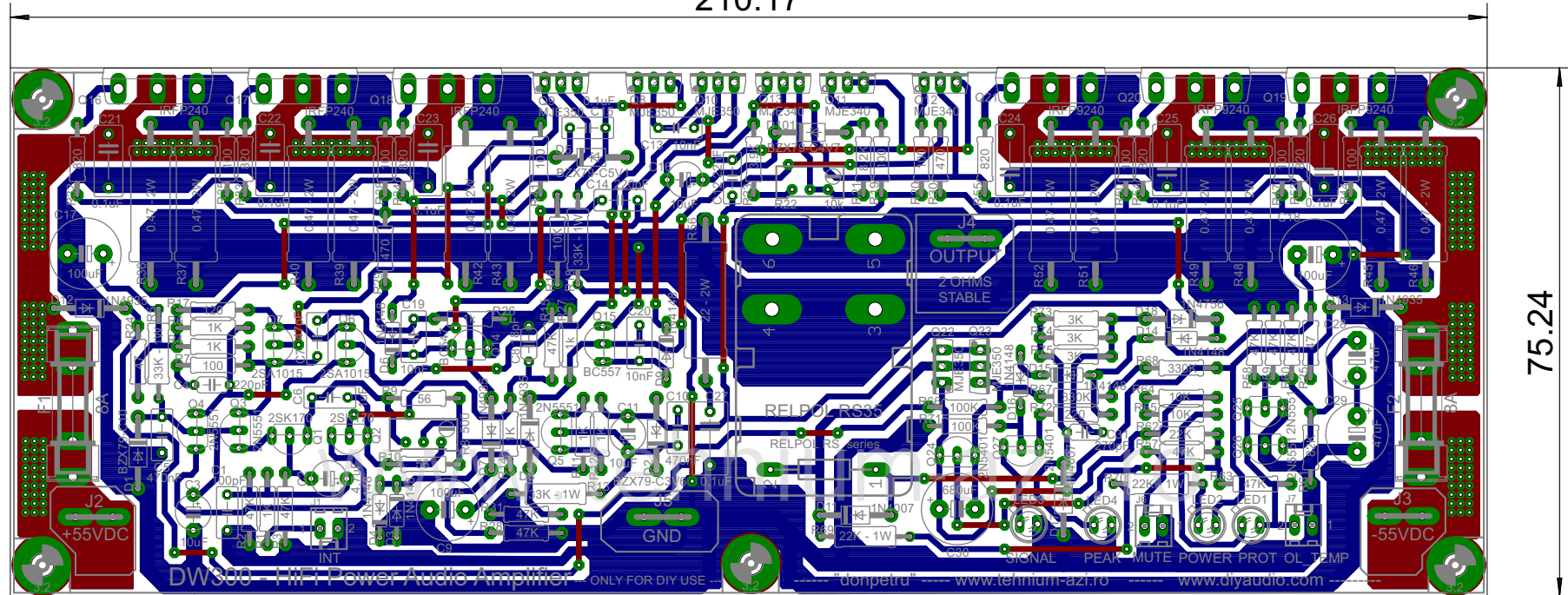
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	1	2	3	4	5	6			
A	QTY	PART-ID	VALUE	DESCRIPTION	PART LIST SCHEMATIC				
	1	C1	100pF	100pf 500V Mica Capacitor	for sheet no.1 and 2				
	1	C2	4.7uF	4.7uF 63V Radial Elect Capacitor					
	3	C3, C11, C16	10uF	10uF 16V Radial Elect Capacitor					
	2	C4, C14	220pF	220pF 500V Mica Capacitor					
	1	C5, C10	470nF	470nF 63V Metallized Polyester Film Capacitor					
	1	C6	1uF	1uF 63V 5% WIMA MKS Film Capacitor					
	1	C7	47pF	47pf 500V Mica Capacitor					
	1	C8	18pF	18pF 500V Mica Capacitor					
	1	C9	100uF	100uF 16V Radial Elect Capacitor					
2	C17, C18	100uF	100uF 80V Radial Elect Capacitor						
B	1	C12	22nF	22nF 63V Metallized Polyester Film Capacitor					
	3	C13, C19, C20	10nF	10nF 63V Metallized Polyester Film Capacitor					
	1	C15	0.1uF	0.1uF 63V Metallized Polyester Film Capacitor					
	6	C21 ... C27	0.1uF	0.1uF MKS 250V 10% Foil capactorr					
	2	C28, C29	47uF	47uF 63V Radial Elect Capacitor					
	1	C30	680uF	680uF 25V Radial Elect Capacitor					
	1	C31	270pF	270pF 500V Ceramic Capacitor					
	1	D1	BZX79-C10	10V 1W Zener Diode					
	1	D2	BZX79-C3V6	3.6V 1W Zener Diode					
	7	D3, D4, D6, D9, D14, D15, D16	1N4148	200mA High-speed diode					
C	1	D5	BZX79-C5V1	5.1V 1W Zener Diode					
	4	D7, D8, D12, D13	1N4935	1A High-speed diode					
	2	D11, D17	1N4007	1A generic diode					
	1	D18	1N4756	47V (min.1W) Zener Diode					
	1	D101	BZX79-C4V7	4.7V 1W Zener Diode					
	2	F1, F2	8A	Fuse 8A					
	3	J1, J6, J7	INT, MUTE, OL_TEMP	PCB Mounting 2 pins header 2.54 mm pitch					
	1	J2	+55VDC	PCB Mounting Tabs 6.3mm x 0.8mm					
	1	J3	-55VDC	PCB Mounting Tabs 6.3mm x 0.8mm					
	1	J4	OUTPUT	PCB Mounting Tabs 6.3mm x 0.8mm					
D	1	J5	GND	PCB Mounting Tabs 6.3mm x 0.8mm					
	1	K1	REPOL-RS35	35A 110VDC RELPOL RS35 relay					
	4	LED1 LED4	PROT, PWR, SIGNAL, PEAK	3mm LEDs					
	2	Q1, Q2	2SK170	J-FET N-Ch Transistor					
	5	Q3, Q4, Q5, Q25 Q26	2N5551	160V, T0-92 case, NPN General Purpose Transistor					
	2	Q6, Q7	2SA1015	50V 0.4W PNP Audio Low Noise Transistor					
	5	Q8 Q9, Q10, Q22, Q23	MJE350	300V 0.5A 20W High Voltage Transistor					
	3	Q11, Q12, Q13	MJE340	300V 0.5A 20W High Voltage Transistor					
	1	Q14	BC547	65V 0.5W NPN Epitaxial Silicon Transistor					
	1	Q15	BC557	65V 0.5W PNP Epitaxial Silicon Transistor					
	3	Q16, Q17, Q18	IRFP240	20A, 200V, 150W, T0-247 case, N-Channel Power MOSFET					
	3	Q19, Q20, Q21	IRFP9240	12A, 200V, 150W, T0-247 case, P-Channel Power MOSFET					
	2	Q24, Q27	2N5401	150V, T0-92 case, PNP General Purpose Transistor					
	8	R1, R4, R6, R11, R12, R14, R26, R27	1K	0.6W 1% MFR					
	2	R2, R3	47K	0.6W 1% MFR					
	3	R5, R13, R18	33K - 1W	1W 5% MFR					
	9	R7, R19, R20, R35, R38, R41, R44, R47, R50	100	0.6W 1% MFR					
	1	R8 = 500 Ohm, R22 = 10K	SR-500, SR-10K	Multiturn potentiometers					
	2	R9, R10	56	0.6W 1% MFR					
	8	R15, R28, R31, R57, R58, R59, R60, R63	47K	0.6W 1% MFR					
	4	R16, R64, R65	10K	0.6W 1% MFR	NOTES: MFR = Metal Film Resistor				
	1	R17	120	0.6W 1% MFR					
	1	R21	8.2K	0.6W 1% MFR					
	1	R23	3.9K	0.6W 1% MFR					
	12	R36, R37, R39 R40, R42, R43, R45, R46, R48, R49, R51, R52	0.47 - 2W or 3W	2W or 3W Wirewound Noninductive Resistor					
	2	R69, R70	22K - 1W	2W 10% Carbon Resistor					
	1	R56	22 - 2W	2W or 3W MFR					
	2	R24, R25	47	Multiturn potentiometer					
	2	R29, R30	470	0.6W 1% MFR					
	6	R32, R33, R34, R53, R54, R55	820	0.6W 1% MFR					
	1	R61	82K	0.6W 1% MFR	COPYRIGHT PROPERTY POLICY ONLY FOR DIY USE				
	1	R62	22K	0.6W 1% MFR					
	2	R66, R71	100K	0.6W 1% MFR					
	2	R67, R68	330K	0.6W 1% MFR					
	1	R72	220	0.6W 1% MFR					
	3	R73, R74, R75	3K	0.6W 1% MFR					
				TITLE: DW300					
				Part List Schematic Audio Amplifier					
				Design by: DWG version by "donpetru"					Company or website: www.tehniun-azi.ro
				Date: 25-11-2012					Rev.:
	1	2	3	4	5	6			

FABRICATION DRAWING - ALL LAYERS

210.17



GENERAL FABRICATION NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 WITH 35um OR 70um COPPER LAYER AND 2 MM OR 2.4 MM THICKNESS
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES
3. HOLE SIZES SHOWN ARE FINISHED DIAMETRES AFTER PLATING.
4. BOARD TO HAVE GREEN SOLDER MASK ON PLATED SURFACE USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
5. SILKSCREEN BOARD USING WHITE INK.
6. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:

- * TWO COPPER LAYERS
- * 2 MM or 2.4 MM BOARD THICKNESS
- * REQUIRES TOP SIDE SILKSCREEN

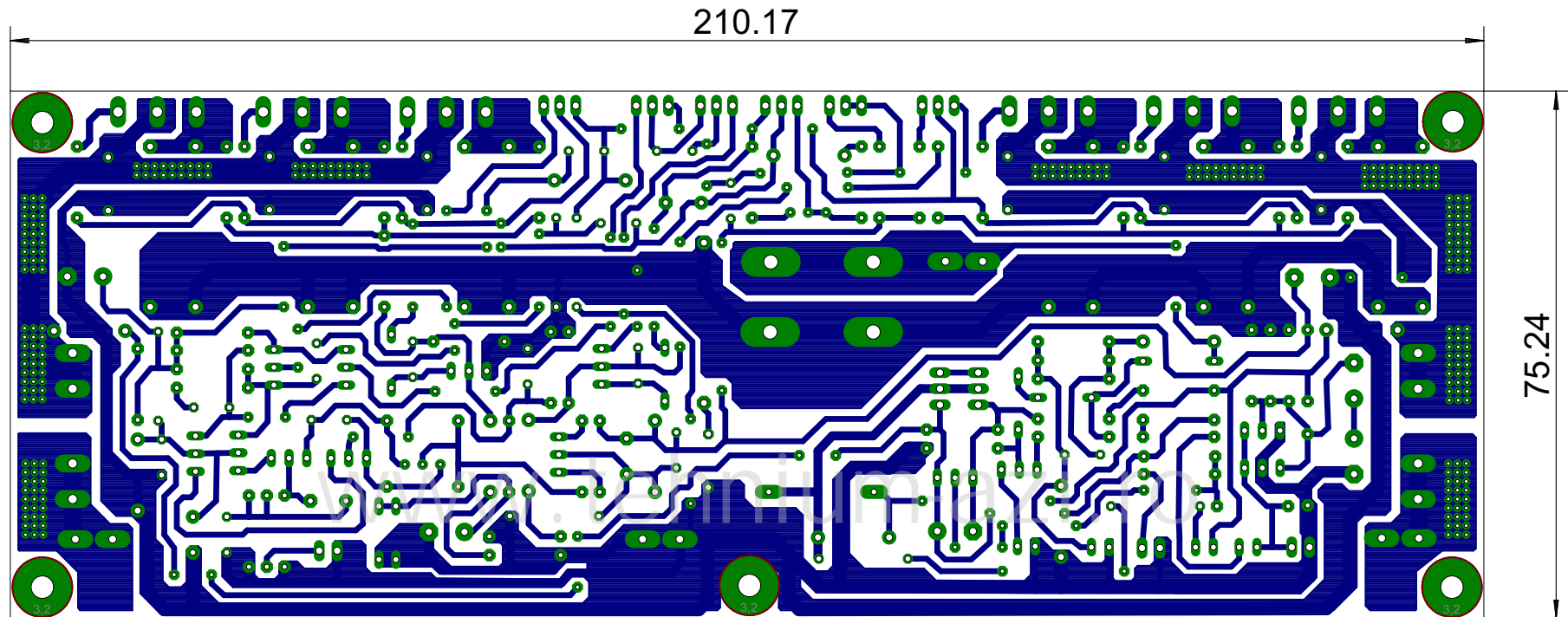
DRILL NOTES:

1. RELPOL relay RS35 pads will be drilled according to data sheet.
2. All pads for MFR 0.6W resistors, 4148 diodes and pads for T0_92 case be drilled with 0.7mm
3. All transistors in T0-126 capsule will have pads with 1mm holes.
4. Holes pads fuse and power MOS transistors will be 1.4mm
5. Other holes where inserting components will be made according to the specific components used. You can use the usual 0.7mm.
6. Mounting holes of the PCB is 3.2 mm.

TITLE: DW300 Audio Amplifier PCB Drawings - All Layers		COPYRIGHT PROPERTY POLICY
Design by: "donpetru"	Company or website: www.tehnum-azi.ro	
Date: 25-11-2012	Rev. no.	SHEET: 4 of 6

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FABRICATION DRAWING - COPPER BOTTOM



GENERAL FABRICATION NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 WITH 35um OR 70um COPPER LAYER AND 2 MM OR 2.4 MM THICKNESS
2. ALL DIMENSIONS ARE GIVEN IN MILLIMETRES
3. HOLE SIZES SHOWN ARE FINISHED DIAMETRES AFTER PLATING.
4. BOARD TO HAVE GREEN SOLDER MASK ON PLATED SURFACE USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
5. SILKSCREEN BOARD USING WHITE INK.
6. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:
 - * TWO COPPER LAYERS
 - * 2 MM or 2.4 MM BOARD THICKNESS
 - * REQUIRES TOP SIDE SILKSCREEN

DRILL NOTES:

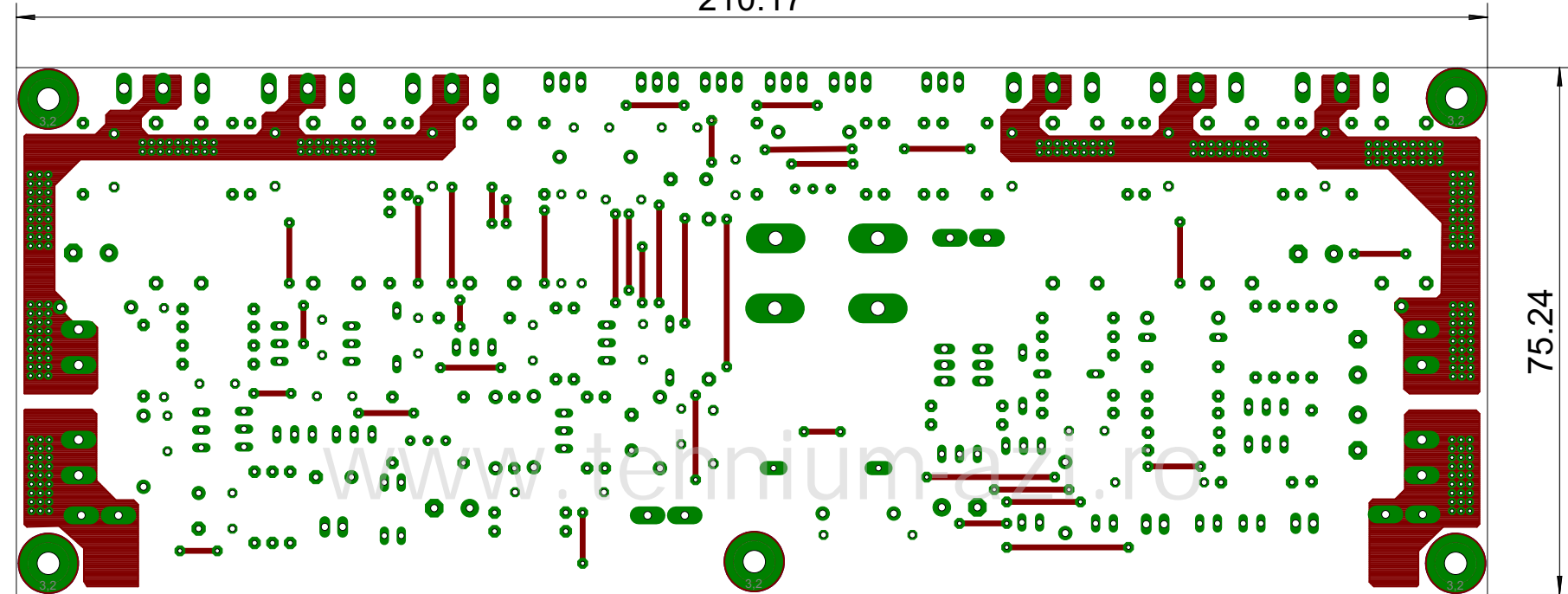
1. RELPOL relay RS35 pads will be drilled according to data sheet.
2. All pads for MFR 0.6W resistors, 4148 diodes and pads for T0_92 case be drilled with 0.7mm
3. All transistors in T0-126 capsule will have pads with 1mm holes.
4. Holes pads fuse and power MOS transistors will be 1.4mm
5. Other holes where inserting components will be made according to the specific components used. You can use the usual 0.7mm.
6. Mounting holes of the PCB is 3.2 mm.

TITLE: DW300 Audio Amplifier PCB Drawings - Copper Bottom		COPYRIGHT PROPERTY POLICY ONLY FOR DIY USE	
Design by: "donpetru"	Company or website: www.tehnum-azi.ro		
Date: 25-11-2012	Rev. no.	SHEET: 5 of 6	

FABRICATION DRAWING - COPPER TOP

210.17

75.24



GENERAL FABRICATION NOTES:

1. PRINTED CIRCUIT BOARD MADE FROM NEMA GRADE FR-4 WITH 35um OR 70um COPPER LAYER AND 2 MM OR 2.4 MM THICKNESS
2. ALL DIMENSIONS ARE GIVEN IN MILIMETRES
3. HOLE SIZES SHOWN ARE FINISHED DIAMETRES AFTER PLATING.
4. BOARD TO HAVE GREEN SOLDER MASK ON PLATED SURFACE USING WET FILM SR100 OR SR1010 EPOXY. EQUIVALENT WET OR DRY FILM MAY BE USED.
5. SILKSCREEN BOARD USING WHITE INK.
6. THE FOLLOWING INFORMATION APPLIES TO THIS BOARD:
 - * TWO COPPER LAYERS
 - * 2 MM or 2.4 MM BOARD THICKNESS
 - * REQUIRES TOP SIDE SILKSCREEN

DRILL NOTES:

1. RELPOL relay RS35 pads will be drilled according to data sheet.
2. All pads for MFR 0.6W resistors, 4148 diodes and pads for T0_92 case be drilled with 0.7mm
3. All transistors in T0-126 capsule will have pads with 1mm holes.
4. Holes pads fuse and power MOS transistors will be 1.4mm
5. Other holes where inserting components will be made according to the specific components used. You can use the usual 0.7mm.
6. Mounting holes of the PCB is 3.2 mm.

TITLE: DW300 Audio Amplifier PCB Drawings - Copper Top		COPYRIGHT PROPERTY POLICY ONLY FOR DIY USE	
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Date: 25-11-2012	Rev. no.	SHEET: 6 of 6	