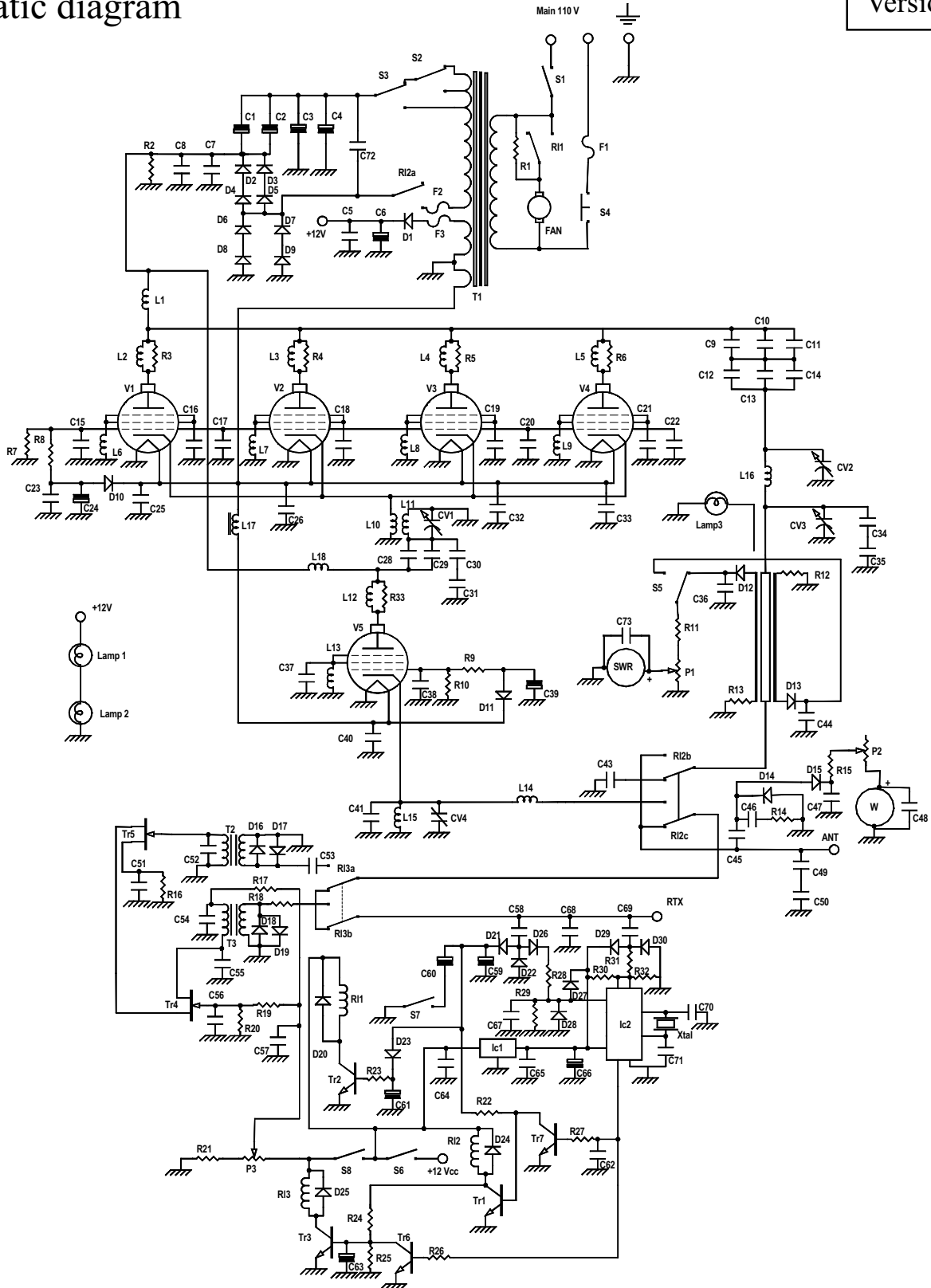


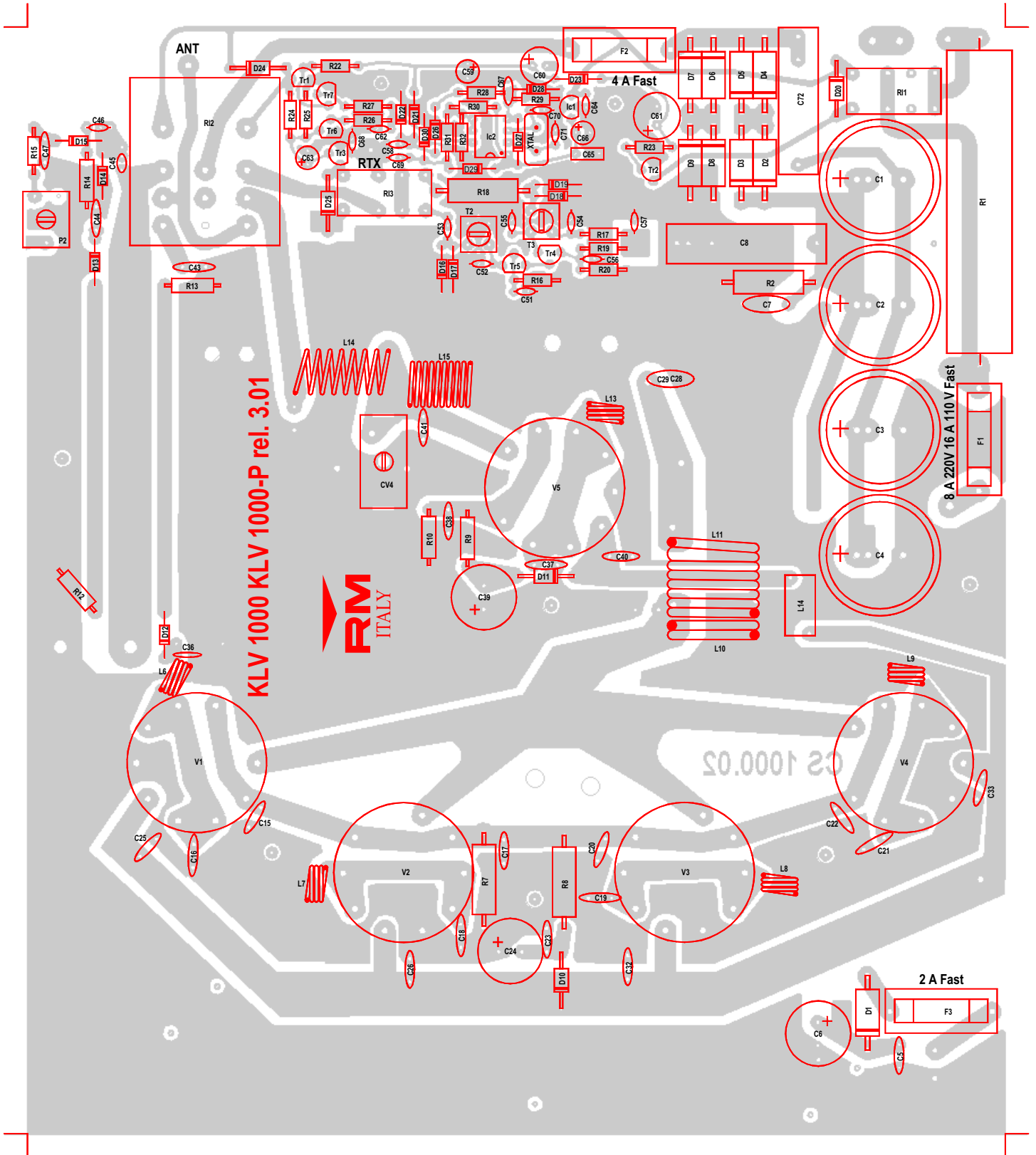


## Mod. KLV 1000 linear amplifier

Schematic diagram

Version 3.11





## List of components

C <sub>1</sub>	= 100 µF	450 V	
C <sub>2</sub>	= 100 µF	450 V	
C <sub>3</sub>	= 100 µF	450 V	
C <sub>4</sub>	= 100 µF	450 V	
C <sub>5</sub>	= 100 nF	50V	
C <sub>6</sub>	= 2200 µF	16 V	
C <sub>7</sub>	= 2,2 nF	1500V	
C <sub>8</sub>	= 22 nF	1000 V	polyester
C <sub>9</sub>	= 2,2 nF	1500 V	
C <sub>10</sub>	= 2,2 nF	1500 V	
C <sub>11</sub>	= 2,2 nF	1500 V	
C <sub>12</sub>	= 2,2 nF	1500 V	
C <sub>13</sub>	= 2,2 nF	1500 V	
C <sub>14</sub>	= 2,2 nF	1500 V	
C <sub>15</sub>	= 100 nF	50V	
C <sub>16</sub>	= 150 pF	500 V	N750
C <sub>17</sub>	= 100 nF	50V	
C <sub>18</sub>	= 150 pF	500 V	N750
C <sub>19</sub>	= 150 pF	500 V	N750
C <sub>20</sub>	= 100 nF	50V	
C <sub>21</sub>	= 150 pF	500 V	N750
C <sub>22</sub>	= 100 nF	50V	
C <sub>23</sub>	= 100 nF	50V	
C <sub>24</sub>	= 470 µF	50 V	
C <sub>25</sub>	= 100 nF	50 V	
C <sub>26</sub>	= 100 nF	50 V	
C <sub>28</sub>	= 2,2 nF	1500 V	
C <sub>29</sub>	= 2,2 nF	1500 V	
C <sub>30</sub>	= 22 pF	500 V	N750
C <sub>31</sub>	= 22 pF	500 V	N750
C <sub>32</sub>	= 100 nF	50 V	
C <sub>33</sub>	= 100 nF	50 V	
C <sub>34</sub>	= 220 pF	500 V	N750
C <sub>35</sub>	= 220 pF	500 V	N750
C <sub>36</sub>	= 100 nF	50 V	
C <sub>37</sub>	= 150 pF	500 V	N750
C <sub>38</sub>	= 100 nF	50 V	
C <sub>39</sub>	= 470 µF	50 V	
C <sub>40</sub>	= 100 nF	50 V	
C <sub>41</sub>	= 100 pF	50 V	N750
C <sub>43</sub>	= 470 pF	50 V	N750
C <sub>44</sub>	= 100 nF	50 V	
C <sub>45</sub>	= 2,2 pF	50 V	N750
C <sub>46</sub>	= 33 pF	50 V	N750
C <sub>47</sub>	= 100 nF	50 V	
C <sub>48</sub>	= 100 nF	50 V	
C <sub>49</sub>	= 68 pF	500 V	N750
C <sub>50</sub>	= 68 pF	500 V	N750
C <sub>51</sub>	= 10 nF	50V	
C <sub>52</sub>	= 27 pF	50 V	N750
C <sub>53</sub>	= 10 nF	50V	
C <sub>54</sub>	= 10 nF	50V	
C <sub>55</sub>	= 33 pF	50 V	N750
C <sub>56</sub>	= 10 nF	50V	
C <sub>57</sub>	= 100 nF	50V	
C <sub>58</sub>	= 8,2 pF	50 V	N750
C <sub>59</sub>	= 10 µF	16V	
C <sub>60</sub>	= 47 µF	16V	
C <sub>61</sub>	= 330 µF	16V	
C <sub>62</sub>	= 10 nF	50V	
C <sub>63</sub>	= 10 µF	16V	
C <sub>64</sub>	= 10 nF	50 V	
C <sub>65</sub>	= 100 nF	63 V	polyester
C <sub>66</sub>	= 22 µF	16 V	
C <sub>67</sub>	= 10 nF	50 V	
C <sub>68</sub>	= 27 pF	50 V	N750
C <sub>69</sub>	= 3,3 pF	50 V	N750
C <sub>70</sub>	= 27 pF	50 V	N750
C <sub>71</sub>	= 27 pF	50 V	N750
C <sub>72</sub>	= 470 nF	630 V~	
C <sub>73</sub>	= 100 nF	50V	
Cv <sub>1</sub>	= Variable condensator	30 pF	
Cv <sub>2</sub>	= Variable condensator	50 pF	
Cv <sub>3</sub>	= Variable condensator	350 pF	
Cv <sub>4</sub>	= Trimmer	10 - 100 pF	
R <sub>1</sub>	= 820 Ω	17W	
R <sub>2</sub>	= 470 KΩ	2W	
R <sub>3</sub>	= 47 Ω	5W	
R <sub>4</sub>	= 47 Ω	5W	
R <sub>5</sub>	= 47 Ω	5W	
R <sub>6</sub>	= 47 Ω	5W	
R <sub>7</sub>	= 1,0 KΩ	2W	
R <sub>8</sub>	= 100 Ω	2W	
R <sub>9</sub>	= 1,0 KΩ	½W	
R <sub>10</sub>	= 1,0 KΩ	½W	
R <sub>11</sub>	= 47 KΩ	¼W	
R <sub>12</sub>	= 100 Ω	½W	
R <sub>13</sub>	= 100 Ω	½W	
R <sub>14</sub>	= 27 Ω	½W	
R <sub>15</sub>	= 47 KΩ	¼W	
R <sub>16</sub>	= 180 Ω	¼W	
R <sub>17</sub>	= 470 Ω	¼W	
R <sub>18</sub>	= 15 Ω	2W	
R <sub>19</sub>	= 56 KΩ	¼W	
R <sub>20</sub>	= 22 KΩ	¼W	

$R_{21} = 4,7 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{22} = 2,2 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{23} = 2,2 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{24} = 12 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{25} = 680 \Omega \quad \frac{1}{4}W$   
 $R_{26} = 1,0 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{27} = 1,0 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{28} = 56 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{29} = 1,0 \text{ M}\Omega \quad \frac{1}{4}W$   
 $R_{30} = 10 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{31} = 100 \Omega \quad \frac{1}{4}W$   
 $R_{32} = 10 \text{ K}\Omega \quad \frac{1}{4}W$   
 $R_{33} = 47 \Omega \quad 5W$   
 $P_1 = \text{Potentiometer } 4,7 \text{ K}\Omega$   
 $P_2 = \text{Trimmer } 220 \text{ K}\Omega$   
 $P_3 = \text{Potentiometer } 4,7 \text{ K}\Omega$   
 $D_1 = 1N5400$   
 $D_2 = D_3 = D_4 = D_5 = \text{BY } 255$   
 $D_6 = D_7 = D_8 = D_9 = \text{BY } 255$   
 $D_{10} = D_{11} = D_{20} = D_{24} = D_{25} = 1N4004$   
 $D_{12} = D_{13} = D_{14} = D_{15} = D_{16} = 1N4148$   
 $D_{17} = D_{18} = D_{19} = D_{21} = D_{22} = D_{23} = 1N4148$   
 $D_{26} = D_{27} = D_{28} = D_{29} = D_{30} = 1N4148$   
 $Tr_1 = Tr_2 = Tr_3 = Tr_6 = Tr_7 = \text{BC } 547$   
 $Tr_4 = Tr_5 = \text{BF } 245$   
 $Ic_1 = \text{LM } 78L05$   
 $Ic_2 = \text{PIC } 12C508A$   
 $Xtal = 4,0 \text{ MHz}$   
 $V_1 = V_2 = V_3 = V_4 = V_5 = \text{EL } 509 - \text{EL } 519$   
 $L_1 = L_{18} = \text{RF impedance block}$   
 $L_2 = L_3 = L_4 = L_5 = L_{12} = 3 \text{ turns wound on resistor, wire } \phi 0.8 \text{ mm}$   
 $L_6 = L_7 = L_8 = L_9 = L_{13} = 3 \text{ turns } \phi 6 \text{ mm wire } \phi 0.8 \text{ mm}$   
 $L_{10} = 2 \text{ turns } \phi 15 \text{ mm wire } \phi 2,0 \text{ mm}$   
 $L_{11} = 6 \text{ turns } \phi 15 \text{ mm wire } \phi 2,0 \text{ mm}$   
 $L_{14} = 7 \text{ turns } \phi 8 \text{ mm wire } \phi 0,8 \text{ mm}$   
 $L_{15} = 9 \text{ turns } \phi 8 \text{ mm wire } \phi 0,8 \text{ mm}$   
 $L_{16} = 3 \text{ turns } \phi 34 \text{ mm wire } \phi 3,0 \text{ mm}$   
 $L_{17} = \text{VK } 200$   
 $Rl_1 = Rl_3 = \text{Relè } 12 \text{ V } 3022$   
 $Rl_2 = \text{Relè } 12 \text{ V } 6043$   
 $F_1 = 16 \text{ A}$   
 $F_2 = 4 \text{ A}$   
 $F_3 = 2 \text{ A}$   
 $\text{Lamp}_1 = \text{Lamp}_2 = \text{Meters lamp}$   
 $\text{Lamp}_3 = 24 \text{ V}$   
 $S_1 = \text{Switch (ON - OFF)}$   
 $S_2 = \text{Switch (HI1 - HI2)}$   
 $S_3 = \text{Switch (LOW - HI)}$   
 $S_4 = \text{Protection Switch}$   
 $S_5 = \text{Switch (DIR - CAL)}$   
 $S_6 = \text{Switch } 3A \text{ (St.By - ON)}$   
 $S_7 = \text{Switch } 3A \text{ (AM - SSB)}$   
 $S_8 = \text{Switch } 3A \text{ (Pre ON - OFF)}$   
 $T_1 = \text{Transformator IN } 110$   
 $\text{OUT } 0-200-250-300V \text{ } 0 - 12 \text{ V } 0 - 6 \text{ V}$   
 $T_2 = T_3 = \text{Transformers } 30 \text{ MHz}$   
 $\text{Fan} = \text{Fan } 110 \text{ Vac}$