



Costruzioni Elettroniche

di Marchioni Davide & Daniele s.n.c.

Via IV Novembre 215/5

Casella postale N° 33

40045 Ponte della Venturina (BO) ITALY

Tel +39 0534 60460

Fax +39 0534 60463

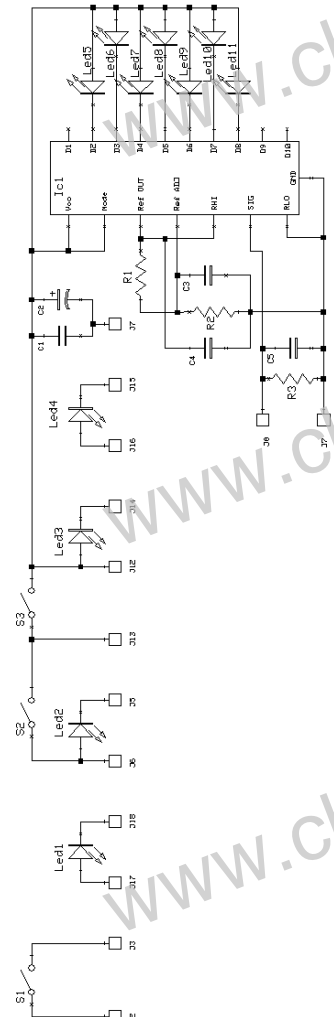
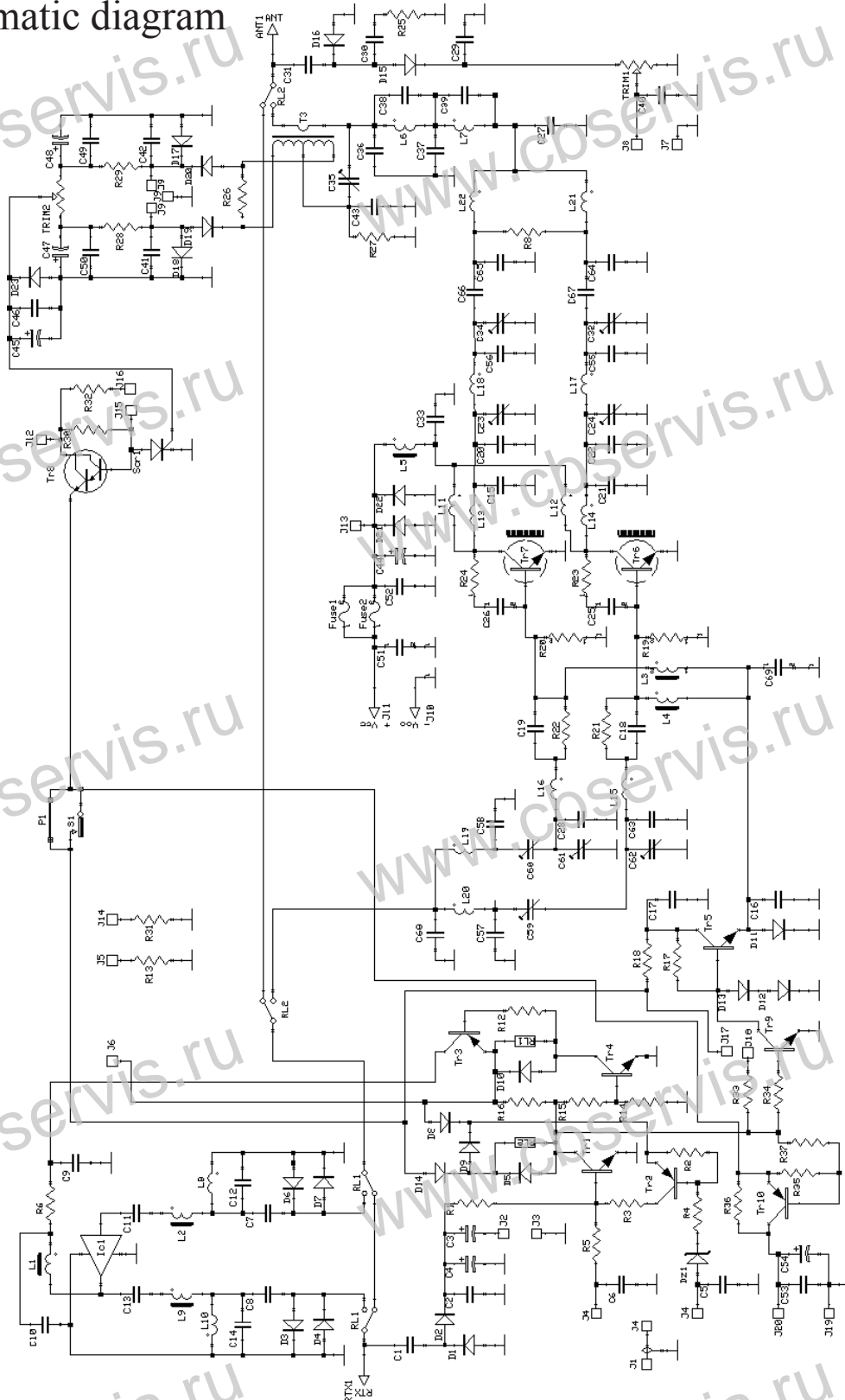
E-MAIL ufftec@rmitaly.com

http://www.rmitaly.com

# VLA 150 VHF linear amplifier

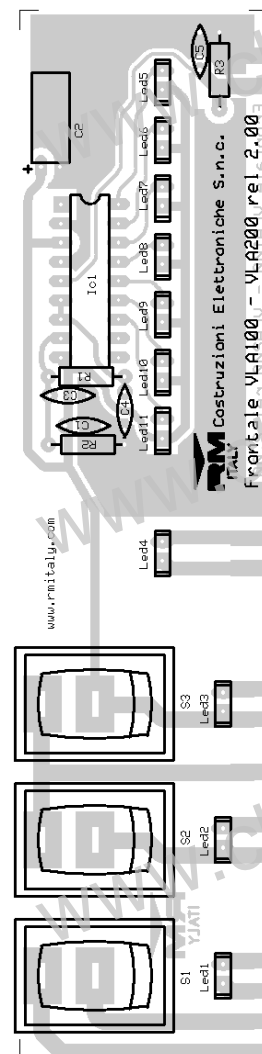
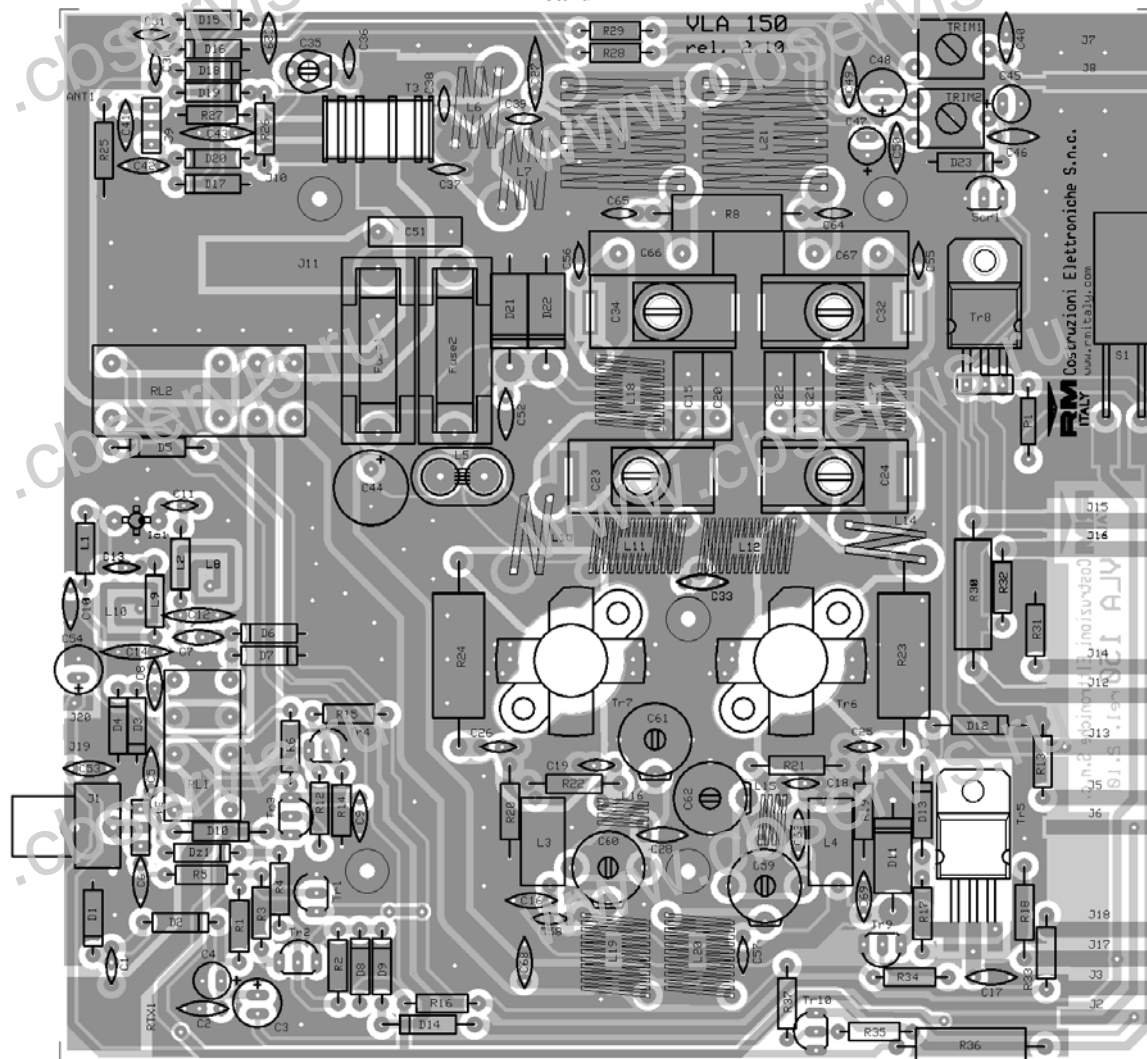
Schematic diagram

Version 2.10



Board A

Board B



List of components Board A

C <sub>1</sub> = 3,3 pF	50 V	NP0	C <sub>20</sub> = 200 pF	500 V	Silvered Mica
C <sub>2</sub> = 10 nF	50 V		C <sub>21</sub> = 51 pF	500 V	Silvered Mica
C <sub>3</sub> = 33 μF	16 V		C <sub>22</sub> = 200 pF	500 V	Silvered Mica
C <sub>4</sub> = 4,7 μF	16 V		C <sub>23</sub> = 10 - 100 pF	Mica Trimmer	
C <sub>5</sub> = 100 nF	50 V		C <sub>24</sub> = 10 - 100 pF	Mica Trimmer	
C <sub>6</sub> = 100 nF	50 V		C <sub>25</sub> = 1,0 nF	50 V	
C <sub>7</sub> = 10 nF	50 V		C <sub>26</sub> = 1,0 nF	50 V	
C <sub>8</sub> = 10 nF	50 V		C <sub>27</sub> = 120 pF	500 V	NP0
C <sub>9</sub> = 100 nF	50 V		C <sub>28</sub> = 180 pF	50 V	N750
C <sub>10</sub> = 100 nF	50 V		C <sub>29</sub> = 100 nF	50 V	
C <sub>11</sub> = 6,8 pF	50 V	NP0	C <sub>30</sub> = 33 pF	50 V	NP0
C <sub>12</sub> = 470 pF	50 V	N750	C <sub>31</sub> = 2,2 pF	50 V	NP0
C <sub>13</sub> = 5,6 pF	50 V	NP0	C <sub>32</sub> = 10 - 100 pF	Mica Trimmer	
C <sub>14</sub> = 470 pF	50 V	N750	C <sub>33</sub> = 100 nF	50 V	
C <sub>15</sub> = 51 pF	500 V	Silvered Mica	C <sub>34</sub> = 10 - 100 pF	Mica Trimmer	
C <sub>16</sub> = 100 nF	50 V		C <sub>35</sub> = 3 - 10 pF	NP0 Trimmer	
C <sub>17</sub> = 100 nF	50 V		C <sub>36</sub> = 47 pF	500 V	NP0
C <sub>18</sub> = 1,0 nF	50 V		C <sub>37</sub> = 56 pF	500 V	NP0
C <sub>19</sub> = 1,0 nF	50 V		C <sub>38</sub> = 33 pF	500 V	NP0

C <sub>39</sub> = 12 pF	500 V	NP0	R <sub>31</sub> = 1,0 K $\Omega$	¼W
C <sub>40</sub> = 10 nF	50 V		R <sub>32</sub> = 1,0 K $\Omega$	¼W
C <sub>41</sub> = 100 nF	50 V		R <sub>33</sub> = 1,0 K $\Omega$	¼W
C <sub>42</sub> = 100 nF	50 V		R <sub>34</sub> = 10 K $\Omega$	¼W
C <sub>43</sub> = 120 pF	50 V	NP0	R <sub>35</sub> = 470 $\Omega$	¼W
C <sub>44</sub> = 470 $\mu$ F	25V		R <sub>36</sub> = 68 $\Omega$	2W
C <sub>45</sub> = 10 $\mu$ F	16V		R <sub>37</sub> = 2,2 K $\Omega$	¼W
C <sub>46</sub> = 100 nF	50 V		TRIM <sub>1</sub> = TRIM <sub>2</sub> = 10 K $\Omega$	PT10LV
C <sub>47</sub> = 22 $\mu$ F	16V		D <sub>1</sub> = D <sub>2</sub> = D <sub>3</sub> = D <sub>4</sub> = D <sub>6</sub> = D <sub>7</sub> = D <sub>8</sub> = D <sub>9</sub> =	1N4148
C <sub>48</sub> = 33 $\mu$ F	16V		D <sub>15</sub> = D <sub>16</sub> = D <sub>17</sub> = D <sub>18</sub> = D <sub>19</sub> = D <sub>20</sub> = D <sub>23</sub> =	1N4148
C <sub>49</sub> = 100 nF	50 V		D <sub>5</sub> = D <sub>10</sub> = D <sub>12</sub> = D <sub>13</sub> = D <sub>14</sub> =	1N4007
C <sub>50</sub> = 100 nF	50 V		D <sub>11</sub> = D <sub>21</sub> = D <sub>22</sub> =	1N5400
C <sub>51</sub> = 10 nF	250 V	Polyester	Dz <sub>1</sub> = 7,5 V	½W
C <sub>52</sub> = 100 nF	50 V		Tr <sub>1</sub> = Tr <sub>4</sub> = Tr <sub>9</sub> =	BC 547
C <sub>53</sub> = 100 nF	50 V		Tr <sub>2</sub> = Tr <sub>3</sub> =	BC 557
C <sub>54</sub> = 33 $\mu$ F	25V		Tr <sub>10</sub> =	BC 327-25
C <sub>55</sub> = 100 pF	500 V	NP0	Tr <sub>8</sub> =	BDX 53 BFP
C <sub>56</sub> = 100 pF	500 V	NP0	Tr <sub>5</sub> =	BD 241 BFP
C <sub>57</sub> = 47 pF	50 V	NP0	Tr <sub>6</sub> = Tr <sub>7</sub> =	SD 1406
C <sub>58</sub> = 47 pF	50 V	NP0	Scr <sub>1</sub> =	P0102
C <sub>59</sub> = C <sub>60</sub> = C <sub>61</sub> = C <sub>62</sub> = 6 - 60 pF	Philips Trimmer		Ic <sub>1</sub> =	MAR-06
C <sub>63</sub> = 180 pF	50 V	N750	L <sub>1</sub> =	10 $\mu$ H
C <sub>64</sub> = 47 pF	500 V	NP0	L <sub>2</sub> = L <sub>9</sub> =	1,0 $\mu$ H
C <sub>65</sub> = 47 pF	500 V	NP0	L <sub>3</sub> = L <sub>4</sub> =	VK 200
C <sub>66</sub> = 2200 pF	500 V	SilveredMica	L <sub>5</sub> =	ANRA 793
C <sub>67</sub> = 2200 pF	500 V	SilveredMica	L <sub>6</sub> = L <sub>7</sub> =	4 coil, wire $\varnothing$ 1.5 on $\varnothing$ 8 mm
C <sub>68</sub> = 82 pF	50 V	NP0	L <sub>8</sub> = L <sub>10</sub> =	on board coil
C <sub>69</sub> = 100 nF	50 V		L <sub>11</sub> = L <sub>12</sub> =	ANRA 455
R <sub>1</sub> = R <sub>2</sub> = R <sub>3</sub> =	2,2 K $\Omega$	¼W	L <sub>13</sub> = L <sub>14</sub> =	2 coil, wire $\varnothing$ 1.5 on $\varnothing$ 8 mm
R <sub>4</sub> =	10 K $\Omega$	¼W	L <sub>15</sub> = L <sub>16</sub> =	3 coil, wire $\varnothing$ 0.8 on $\varnothing$ 5 mm
R <sub>5</sub> =	2,2 K $\Omega$	¼W	L <sub>17</sub> = L <sub>18</sub> =	5 coil, wire $\varnothing$ 1.2 on $\varnothing$ 8 mm
R <sub>6</sub> =	1,2 K $\Omega$	¼W	L <sub>19</sub> = L <sub>20</sub> =	ANRA 309
R <sub>8</sub> =	100 $\Omega$	2W	L <sub>21</sub> = L <sub>22</sub> =	5 coil, wire $\varnothing$ 1.5 on $\varnothing$ 13 mm
R <sub>12</sub> =	4,7 K $\Omega$	¼W	T <sub>3</sub> =	ANRA 700/12
R <sub>13</sub> =	1,0 K $\Omega$	¼W	Rl <sub>1</sub> =	Relè 12 V 3022
R <sub>14</sub> = R <sub>15</sub> = R <sub>16</sub> =	4,7 K $\Omega$	¼W	Rl <sub>2</sub> =	Relè 12 V 4152
R <sub>17</sub> =	1,0 K $\Omega$	¼W	Fuse <sub>1</sub> = Fuse <sub>2</sub> =	8 A
R <sub>18</sub> =	1,0 $\Omega$	½W		
R <sub>19</sub> =	10 $\Omega$	½W		
R <sub>20</sub> =	10 $\Omega$	½W		
R <sub>21</sub> =	not present			
R <sub>22</sub> =	not present			
R <sub>23</sub> =	68 $\Omega$	5W		
R <sub>24</sub> =	68 $\Omega$	5W		
R <sub>25</sub> =	27 $\Omega$	½W		
R <sub>26</sub> =	47 $\Omega$	¼W		
R <sub>27</sub> =	1,0 K $\Omega$	¼W		
R <sub>28</sub> =	10 K $\Omega$	¼W		
R <sub>29</sub> =	1,0 K $\Omega$	¼W		
R <sub>30</sub> =	330 $\Omega$	2W		

### List of components Board B

C <sub>1</sub> = C <sub>3</sub> = C <sub>4</sub> = C <sub>5</sub> =	10 nF	50 V
C <sub>2</sub> =	10 $\mu$ F	25V
R <sub>1</sub> =	1,0 K $\Omega$	¼W
R <sub>2</sub> =	8,2 K $\Omega$	¼W
R <sub>3</sub> =	4,7 K $\Omega$	¼W
Ic <sub>1</sub> =	LM 3915 N	
Led <sub>1</sub> = Led <sub>4</sub> =	Red Led	
Led <sub>2</sub> =	Yellow Led	
Led <sub>3</sub> = Led <sub>5</sub> = Led <sub>6</sub> = Led <sub>7</sub> =	Green Led	
Led <sub>8</sub> = Led <sub>9</sub> = Led <sub>10</sub> = Led <sub>11</sub> =	Green Led	