

ARDFrx80

PCB 20180128-16 v.201801331

Ordering details for coils and crystals. RM=pin space.

For adjustments of coils see "Coil details".

		Conrad OrderNr																													
L102	<p>a). Ferrite rod 8x50mm $U_i=300$ Wind 7 twisted turns. Then L102 has totally 14 turns with a center tap. <u>This cheap little rod performs well and fits INSIDE the box.</u></p> <p style="text-align: center;">-OR-</p> <p>b). 150mm x8mm rod $U_i=250$ (material 4B1) from box 73 <u>Cheap and possibly better performance but much longer size</u></p> <p style="text-align: center;">-OR-</p> <p>c). Amidon / Fair-Rite rod $U_i=125$ material #61 <u>long and expensive.</u> Adapt the number of turns for nominal 8.00 uH inductance.</p> <p style="text-align: center;">Winding : Use one pair of firmly twisted wires taken from a piece of CAT5 network cable (outside wire dia is 1mm). See "Coils details" for correct adjustment of L102 selfinductance.</p>	535575	<p>Box73.de FS-150x8-4B</p> <p>Amidon.de R61-xxx-yyy</p>																												
L101	3 turns close wound over the <u>centre of the 50mm rod</u> . Or try : (L101 turns) = (3/14 x L102 turns).																														
L2	Local oscillator coil 1.00 uH . Neosid 7.5 x 7.5 mm WZ6,5 or 5048 See "Coils details" for <u>one-time-adjustment</u> of 5048.		Amidon.de																												
L3, L6	<p>IF coils tuned to 10.7 MHz. The following types "Pre-adjusted filter coils series 7.1" could be used :</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>L [uH]</th> <th>Type</th> <th>Start-End</th> <th>RM</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>5056</td> <td>5-4</td> <td>2.25</td> </tr> <tr> <td>3.3</td> <td>5044</td> <td>5-1</td> <td>2.25</td> </tr> <tr> <td>3.3</td> <td>WZ12,25</td> <td>5-1</td> <td>2.5</td> </tr> <tr> <td>3.9</td> <td>WZ13,5</td> <td>5-1</td> <td>2.5</td> </tr> <tr> <td>4.7</td> <td>WZ15,25</td> <td>5-1</td> <td>2.5</td> </tr> <tr> <td>5.6</td> <td>WZ16.25</td> <td>5-1</td> <td>2.5</td> </tr> </tbody> </table> <p>If needed, bend the coil pins slightly to fit the PCB holes. If needed, enlarge the value of C25 and C26.</p>	L [uH]	Type	Start-End	RM	4	5056	5-4	2.25	3.3	5044	5-1	2.25	3.3	WZ12,25	5-1	2.5	3.9	WZ13,5	5-1	2.5	4.7	WZ15,25	5-1	2.5	5.6	WZ16.25	5-1	2.5		Amidon.de
L [uH]	Type	Start-End	RM																												
4	5056	5-4	2.25																												
3.3	5044	5-1	2.25																												
3.3	WZ12,25	5-1	2.5																												
3.9	WZ13,5	5-1	2.5																												
4.7	WZ15,25	5-1	2.5																												
5.6	WZ16.25	5-1	2.5																												
L7,10,11,12,13,14,201	22uH EPCOS / FASTRON axial chokes 3x7mm SRF >= 11MHz.	440311																													
F1+F2	Crystal filter 10M12B (3k) -OR- 10M7B (1k8) Box73.de		10M12B																												
Cr	BFO crystal 10.7MHz HC18U Box73.de		10.700k																												
Trim key	Special tool !! for adjustment of Neosid coils. Box73.de		ABGL-SD																												
Fr	9,5 x 9,5mm ferrite core with 3 turns, two twisted wires. Inserted between PCB "HPH" and chassis phone bus.	1086850																													