

HF BPF 08_Band1a 6m

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Band1a 6m Introduction

General

The latest design of the HF-BPF kit now permits of two options:

- Option 1: the original design covering 1.8 MHz - 30 MHz, in 4 bands, and
- Option 2: a board covering 3.5 MHz - 30 MHz plus 6m, in 4 bands

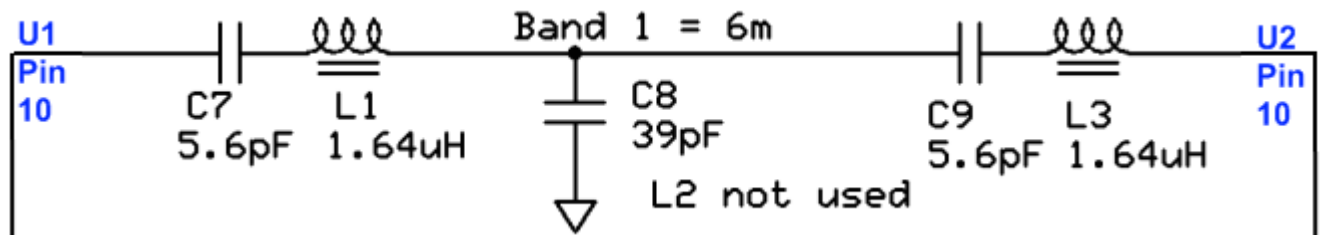
These builders notes describe 4 "bands" and the board layout permits filters for four bands. However, depending upon the option (1 or 2), the bands named "band 1" and "band 2" will be built and installed differently. The changes for Band 1 are as follows (and will be implemented somewhat more elegantly in these note, time and resources permitting):

- Band 1 is changed between option 1 (1.8-4 MHz) and option 2 (6m):
 - C7: option 1=150 pF; option 2 = 5.6 pF
 - C8: option 1=330 pF ; option 2 = 39 pF
 - C9: option 1=150 pF ; option 2 = 5.6 pF
 - L1: option 1= 23 uH ; option 2 = 1.64 uH
 - L2: option 1= 10.7uH; option 2 = not used
 - L3: option 1= 23 uH ; option 2 = 1.64 uH

Band1a 6m Schematic

(Resistor testpoints (hairpin, top, or left-hand lead), as physically installed on the board, are marked in the schematic with red dots)

([Click for Full Schematic](#))



Band1a 6m Bill of Materials

Detailed Bill of Materials

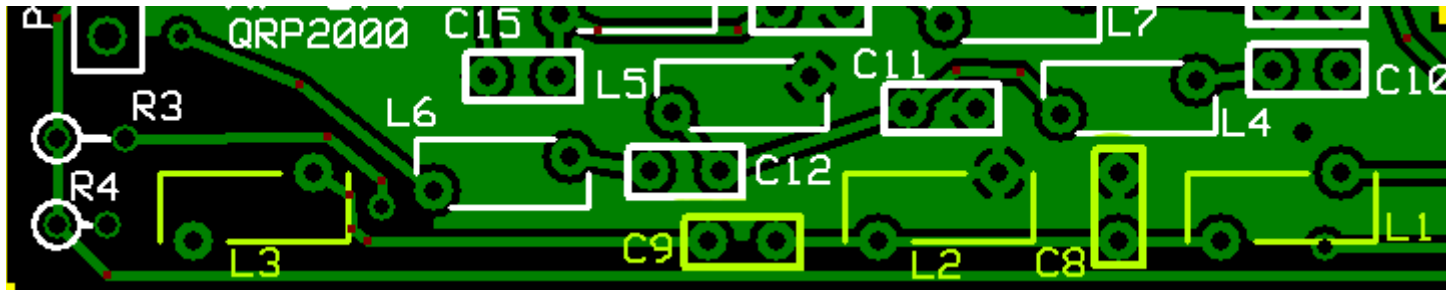
Check	Designation	Component	Marking	Category	Orientation	Notes	Circuit
<input type="checkbox"/>	C07	5.6 pF 5%	5.6	Ceramic			Band1a 6m
<input type="checkbox"/>	C08	39pF 5%	39J	Ceramic			Band1a 6m
<input type="checkbox"/>	C09	5.6 pF 5%	5.6	Ceramic			Band1a 6m
<input type="checkbox"/>	L1	1.64 uH 23T #30 on T25- 6 (15")	yellow	coil			Band1a 6m
<input type="checkbox"/>	L2	not used		unused			Band1a 6m
<input type="checkbox"/>	L3	1.64 uH 23T #30 on T25- 6 (15")	yellow	coil			Band1a 6m

Band1a 6m Summary Build Notes

- Install the Capacitors
- Wind and Install the Coils
- [Test the Stage](#)

Band1a 6m Detailed Build Notes

Top of the Board



Install the Capacitors

Check	Designation	Component	Marking	Category	Orientation	Notes
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<input type="checkbox"/>	C07	5.6 pF 5%	5.6	Ceramic		
<input type="checkbox"/>	C09	5.6 pF 5%	5.6	Ceramic		
<input type="checkbox"/>	C08	39pF 5%	39J	Ceramic		

Wind and Install the Coils

Check	Designation	Component	Marking	Category	Orientation	Notes
<input type="checkbox"/>	L1	1.64 uH 23T #30 on T25- 6 (15")	yellow	coil		
<input type="checkbox"/>	L3	1.64 uH 23T #30 on T25- 6 (15")	yellow	coil		
<input type="checkbox"/>	L2	not used		unused		

Band1a 6m Completed Stage

Top of the Board

Band1a 6m Testing

Visual Inspection

Test Setup

Using very good lighting and magnification, carefully inspect the solder joints to identify bridges, cold joints, or poor contacts.

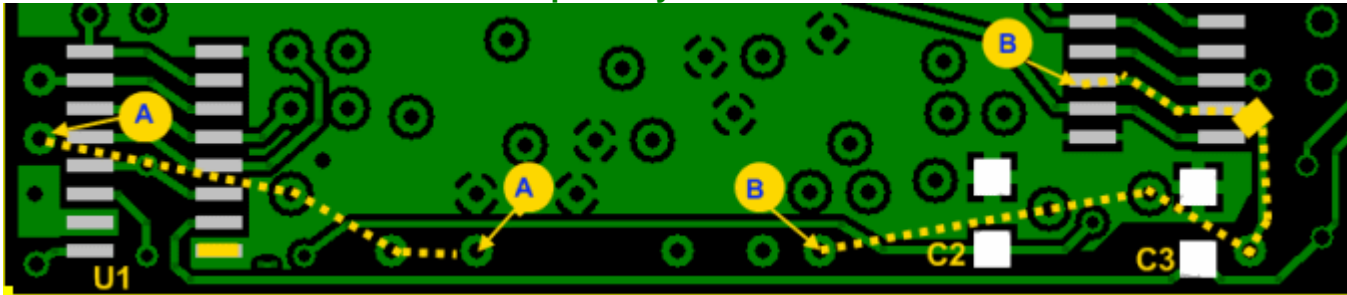
Pay especial attention to the joints on the inductors. If necessary, touch up the joints with your iron and/or some flux.

Continuity Tests

Test Setup

- This tests for continuity in the "chain" of inductors for this band
- The graphic below shows two continuity chains and their associated test points on the bottom of the board.

- The "A and B chains" are shown using lettered dots and lines. :
- For each of the two segments (A-A and B-B), measure the resistance between the dot pairs - you want ~0 ohms.



Test Measurements

Testpoint	Units	Nominal Value	Author's	Yours
Point "A" to poin "A"t	ohms	0	TBD	_____
Point "A" to poin "A"t	ohms	0	TBD	_____

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