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* Filters Finished: 9/2012
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*
* Low Pass Filter 2.6KHz BW 2350Hz CTR 1200Hz*
*
* Low Pass Filter 1600Hz BW 1400 CTR 800Hz *
*
* Low Pass Filter 720Hz BW 590 CTR 400Hz *
*
* High Pass Filter 270Hz (lower limit all filters)
*
* T. Berger 11/27/10
*

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*****
*=====
* High Pass Filter 270Hz 500 ohm
* modified from EMRFD p. 9.38
*=====

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BLK

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cap 1 2 C=1uF
ind 2 0 L=150mH Q=2 F=1KHz
cap 2 3 C=1uF

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HPF300:2POR 1 3
END

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*=====
* Low Pass Filter 2.6KHz 500 ohm
* EMRFD p. 9.40
*=====

```

BLK

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cap 1 0 C=.152uF

ind 1 2 L=33.9mH Q=2 F=1KHz ;Q=6.3 F=1KHz ;Q30 79KHz
cap 1 2 C=.00634uF

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cap 2 0 C=.22uF

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ind 2 3 L=33.2mH Q=2 F=1KHz ; Q=6.1 F=1KHz
cap 2 3 C=.0342uF

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cap 3 0 C=.182uF

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ind 3 4 L=33.9mH Q=2 F=1KHz ; Q=6.1 F=79KHz
cap 3 4 C=.022uF

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cap 4 0 C=.117uF

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* 7db attenuator

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res 4 0 R=1200
res 4 5 R=470
res 5 0 R=1200

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HPF300 5 6

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LPF2600:2POR 1 6
END

*=====

* Low Pass Filter 1600 500 ohm
* ELP7n_1900f1_3800f2_.1r_500o_1.9Q

*=====

cap 1 0 C=.18uF

ind 1 2 L=56mH Q=2 F=1KHz ;Q=50 F=79KHz
cap 1 2 C=6.8nF

cap 2 0 C=.33uF

ind 2 3 L=56mH Q=2 F=1KHz ; Q=50 F=79KHz
cap 2 3 C=27nF

cap 3 0 C=.33uF

ind 3 4 L=56mH Q=2 F=1KHz ; Q=50 F=79KHz
cap 3 4 C=22nF

cap 4 0 C=.18uF

* 6db attenuator

res 4 0 R=1500
res 4 5 R=390
res 5 0 R=1500

HPF300 5 6

LPF1600:2POR 1 6
END

*=====

* Low Pass Filter 720Hz 500 ohm
* EMRFD p. 9.40

*=====

cap 1 0 C=.381uF ;.39uF

ind 1 2 L=103mH Q=2 F=1KHz ;100mH
cap 1 2 C=21nF ;.22uF

cap 2 0 C=.681uF ;.68uF

ind 2 3 L=101mH Q=2 F=1KHz ; Q=50 F=79KHz 100mH
cap 2 3 C=95nF ;100nF

cap 3 0 C=.546uF ;.56uF

ind 3 4 L=104mH Q=2 F=1KHz ; Q=50 F=79KHz ;100mH
cap 3 4 C=64nF ;68nF

cap 4 0 C=.384uF ;.39uF

HPF300 4 6

LPF720:2POR 1 6

END

*=====
* Through Attenuator 11db 500 ohm
*=====

BLK

res 1 0 R=680
res 1 2 R=1200
res 2 0 R=680

THRU:2POR 1 2
END

*=====
* Full Filter
*=====

BLK

THRU 2 3
;==
;LPF720 2 3
;==LPF900 2 3
;LPF1600 2 3
;==LPF1950 2 3
;LPF2600 2 3

BPF:2POR 2 3
END

FREQ
STEP 3HZ 15000HZ 100HZ ;Full Span
;STEP 250Hz 2600Hz 50Hz ;3db 2600Hz ;250
;STEP 8HZ 4450HZ 10HZ ;60db 2600Hz
;STEP 250Hz 1600Hz 10Hz ;3db 1600Hz
;STEP 8HZ 3800HZ 10HZ ;60db 1600Hz
;STEP 250Hz 1950Hz 10Hz ;3db 1950Hz
;STEP 8HZ 3800HZ 10HZ ;60db 1950Hz
;STEP 250Hz 900Hz 10Hz ;3db 900Hz
;STEP 8HZ 2100HZ 10HZ ;60db 900Hz
;STEP 80Hz 800Hz 10Hz ;3db 720Hz
;STEP 6HZ 1700HZ 10HZ ;60db 720Hz
;STEP 500HZ 575HZ 1HZ ;attenuator check
END

*=====
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*=====
* Low Pass Filter 1950Hz 500 ohm
*ELP7_2300_4600_.1_500_1.9
*=====

;BLK

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;cap 1 0 C=.15uF

;ind 1 2 L=47mH Q=1.9 F=1KHz
;cap 1 2 C=5.6nF

;cap 2 0 C=.27uF

;ind 2 3 L=47mH Q=1.9 F=1KHz ; Q=50 F=79KHz
;cap 2 3 C=27nF

;cap 3 0 C=.27uF

;ind 3 4 L=47mH Q=1.9 F=1KHz ; Q=50 F=79KHz
;cap 3 4 C=18nF

;cap 4 0 C=.15uF

* 4db attenuator

;res 4 0 R=2200
;res 4 5 R=270
;res 5 0 R=2200

;HPF300 5 6

;LPF1950:2POR 1 6
;END

*=====
* Low Pass Filter 900Hz 500 ohm
*ELP7_1300_2600_.1_500_1.9
*=====
;BLK

;cap 1 0 C=.27uF

;ind 1 2 L=82mH Q=1.9 F=1KHz ;Q=50 F=79KHz
;cap 1 2 C=10nF

;cap 2 0 C=.47uF

;ind 2 3 L=82mH Q=1.9 F=1KHz
;cap 2 3 C=47nF

;cap 3 0 C=.47uF

;ind 3 4 L=82mH Q=1.9 F=1KHz ; Q=50 F=79KHz
;cap 3 4 C=33nF

;cap 4 0 C=.27uF

;HPF300 4 6

;LPF900:2POR 1 6
;END

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