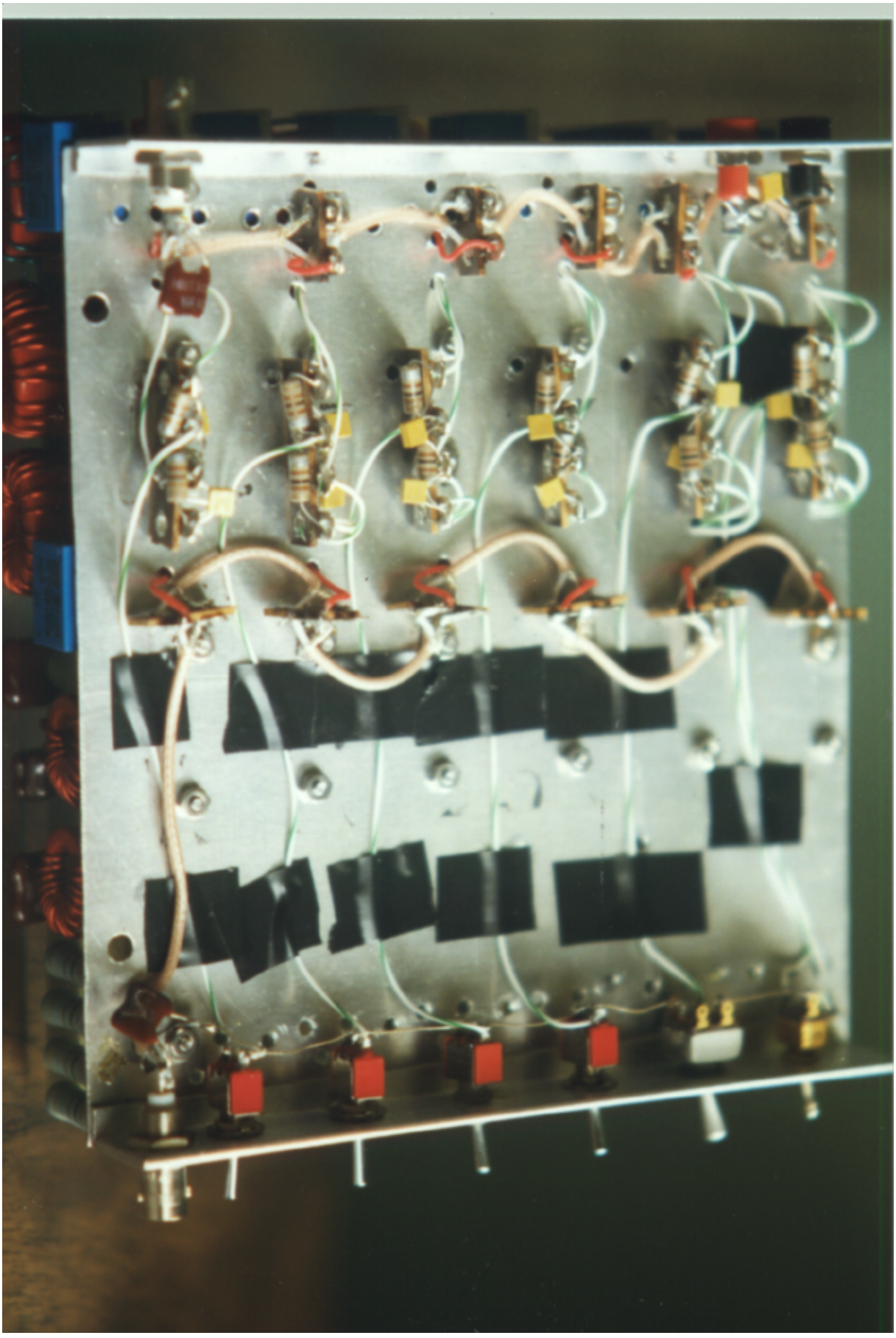

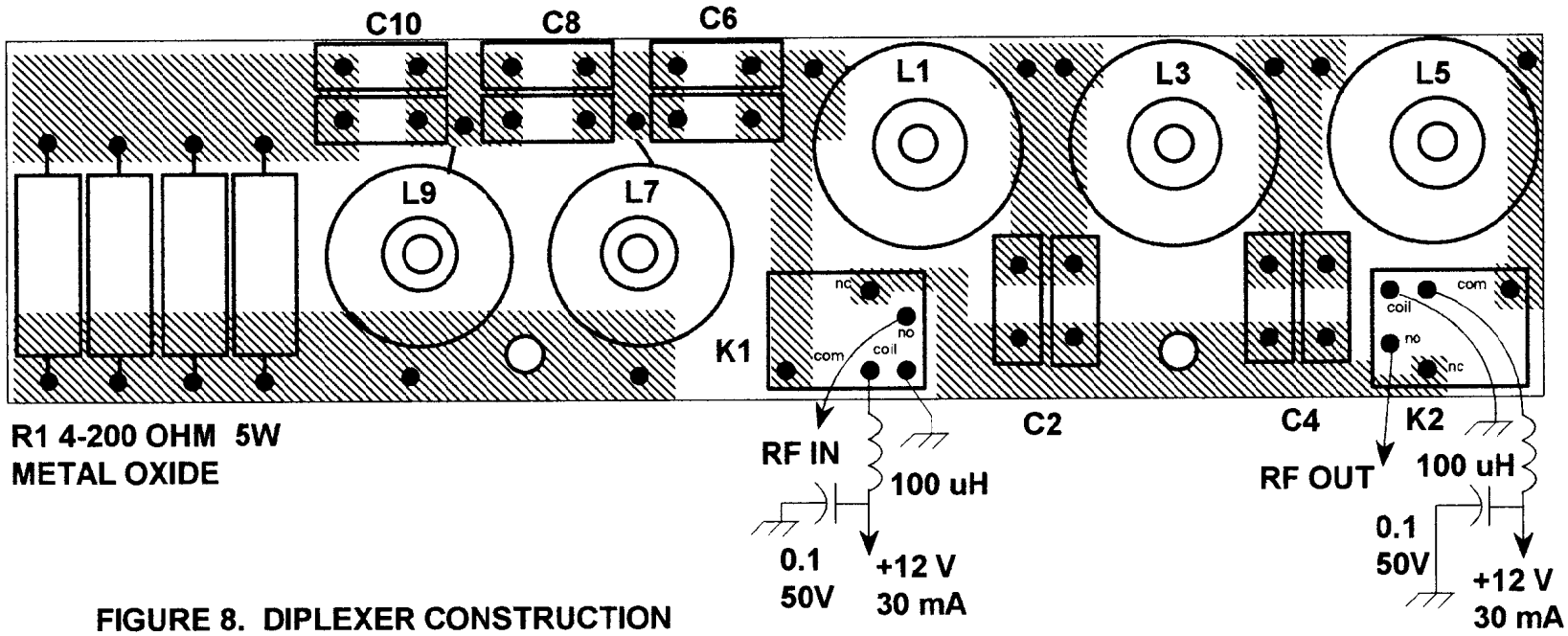

FIGURE 8. DIPLEXER CONSTRUCTION

Compact Software - ARRL Radio Designer 1.5 18-MAR-99 15:08:50
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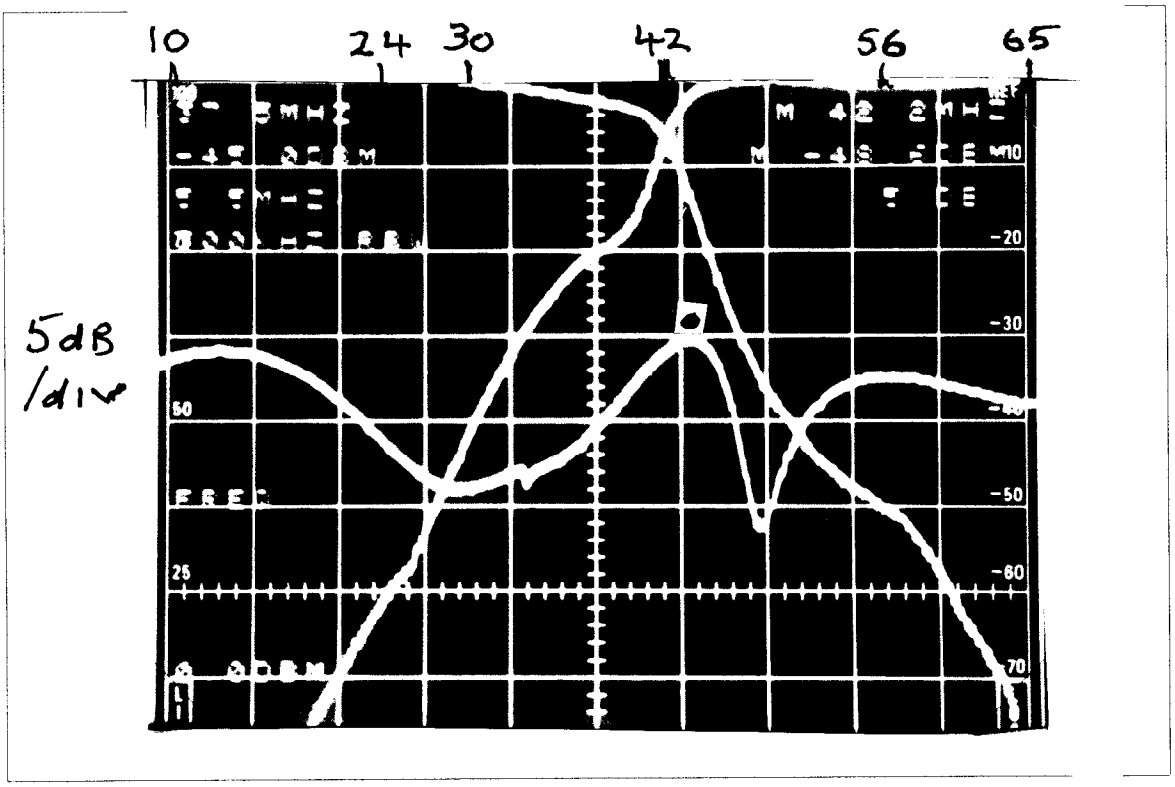
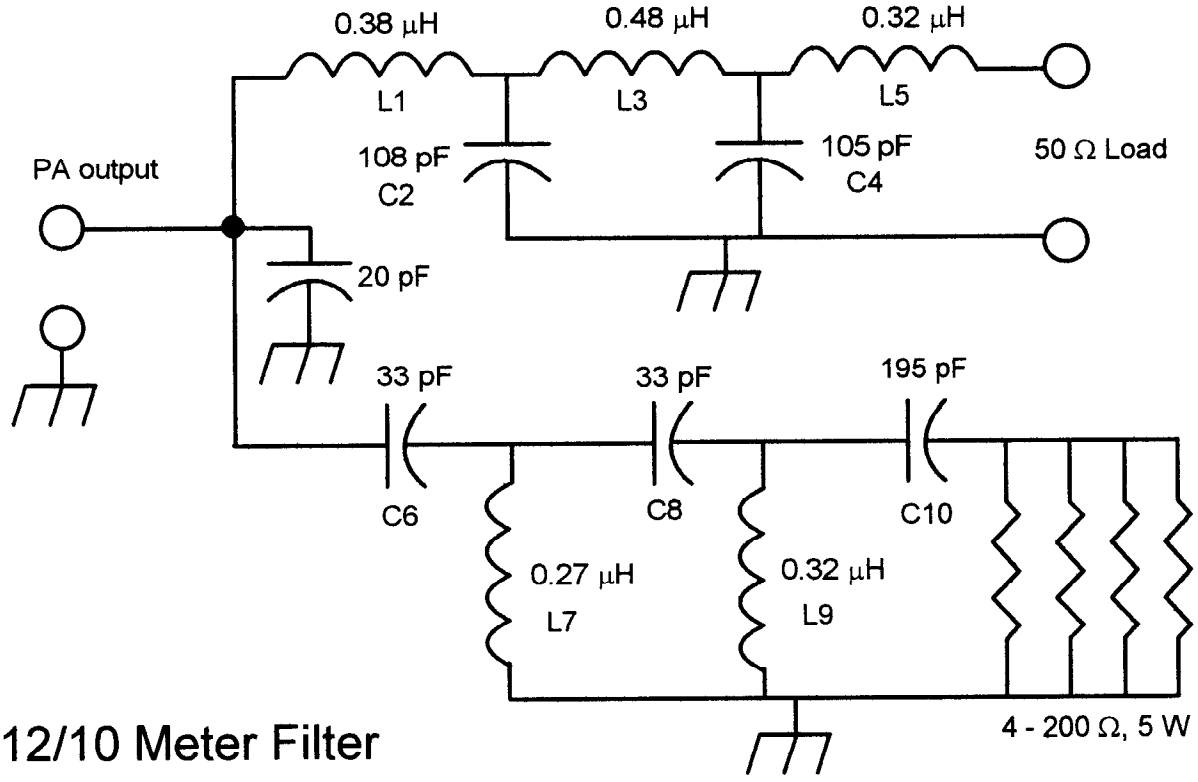
```
*CHEBY HI-LO DIPLEXER

* PROTOTYPE 0.1 DB CHEBY  VALUES

*LO PASS PROTOTYPE FROM FILTER TABLES
L1P:1.5613
C2P:1.8069
L3P:1.7659
C4P:1.4173
L5P:0.6507

*HI PASS FROM THE LOWPASS
C6P:(1/L1P)
L7P:(1/C2P)
C8P:(1/L3P)
L9P:(1/C4P)
C10P:(1/L5P)

*CORRECTION CONSTANT
KLO:1.005
KHI:(1/KLO)

*CUTOFF FREQUENCY
FCO:5.45MHZ

*CONSTANTS
W:(2*PI*FCO)
QL:160
R:50

*FINAL VALUES LO PASS
L1:(KLO*L1P*R/W)
C2:(KLO*C2P/(W*R))
L3:(KLO*L3P*R/W)
C4:(KLO*C4P/(W*R))
L5:(KLO*L5P*R/W)

*FINAL VALUES HI PASS
C6:(KHI*C6P/(W*R))
L7:(KHI*L7P*R/W)
C8:(KHI*C8P/(W*R))
L9:(KHI*L9P*R/W)
C10:(KHI*C10P/(W*R))

*LO PASS
BLK
      IND 1 2 L=L1 Q=QL F=FCO
      CAP 2 0 C=C2
      IND 2 3 L=L3 Q=QL F=FCO
      CAP 3 0 C=C4
      IND 3 4 L=L5
LOPASS:2POR 1 4
END

*HI PASS
BLK
      CAP 1 2 C=C6
      IND 2 0 L=L7 Q=QL F=FCO
      CAP 2 3 C=C8
      IND 3 0 L=L9 Q=QL F=FCO
      CAP 3 4 C=C10
HIPASS:2POR 1 4
END
```

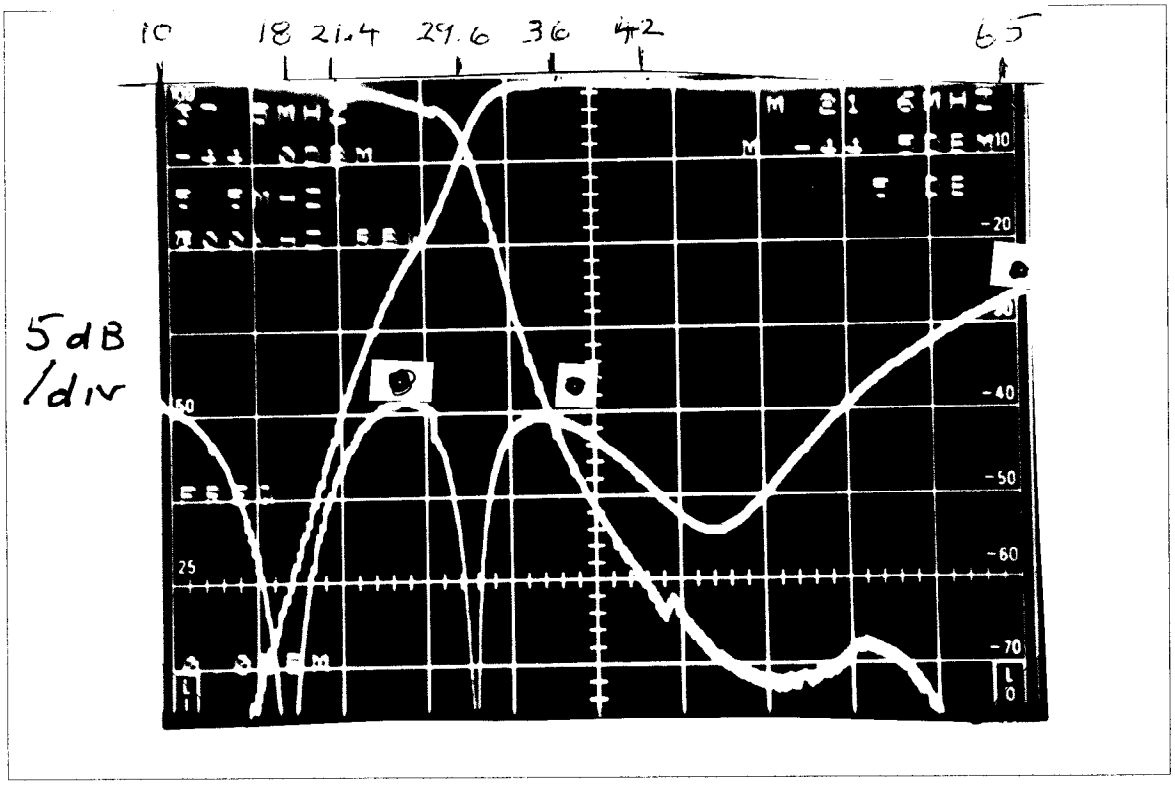
```
*DIPLEXER
BLK
      LOPASS 1 3
      HIPASS 1 2
DIPLEX:3POR 1 2 3
END

FREQ
      STEP 1.8MHZ 15MHZ 50KHZ
END
```

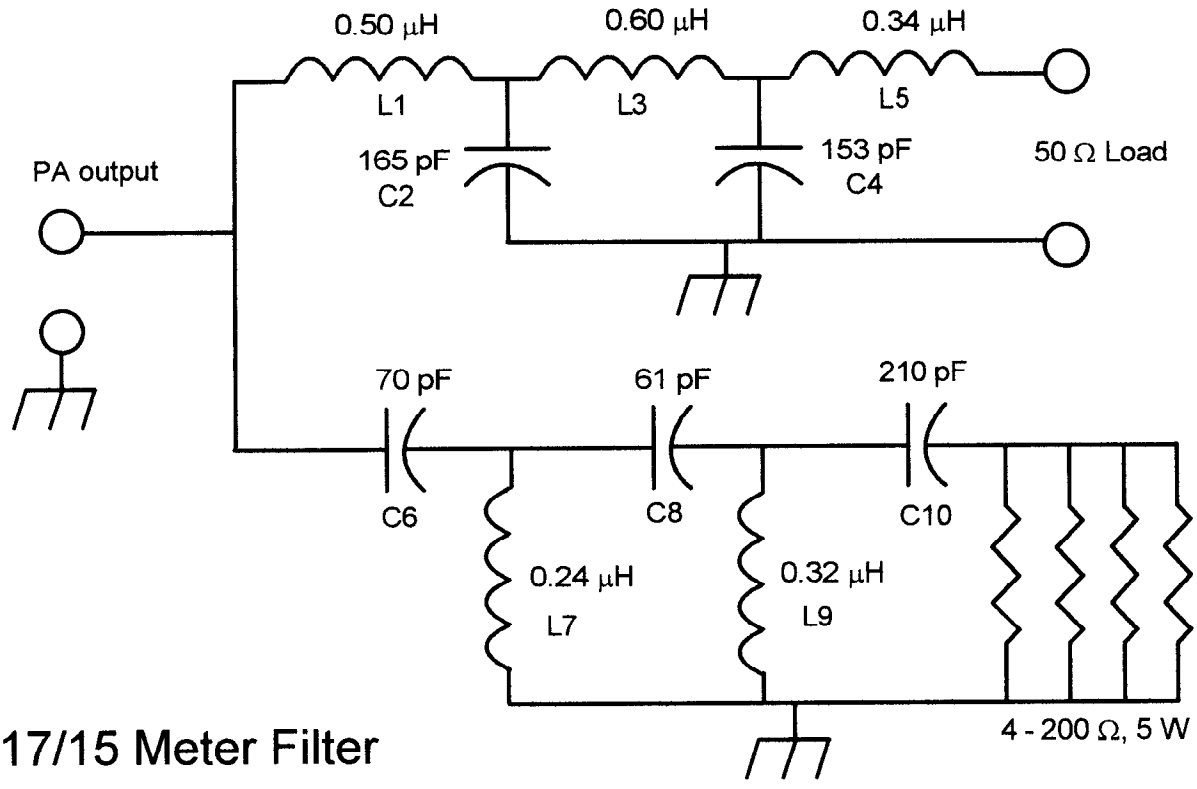




12/10 Meter Filter

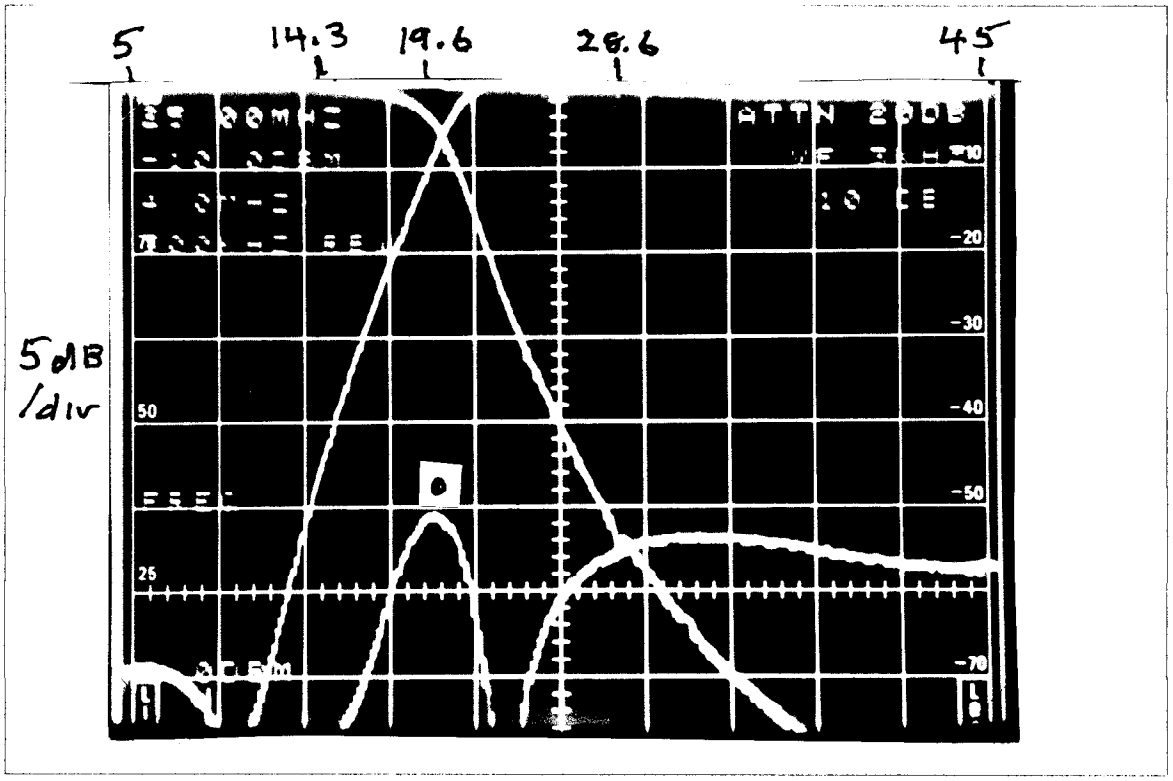
L1	T-106-6	4T #18	180 deg
L3	T-106-6	5T #18	270 deg
L5	T-106-6	3T #18	90 deg
L7	T-50-2	4T #22	180 deg
L9	T-50-2	5T #22	180 deg

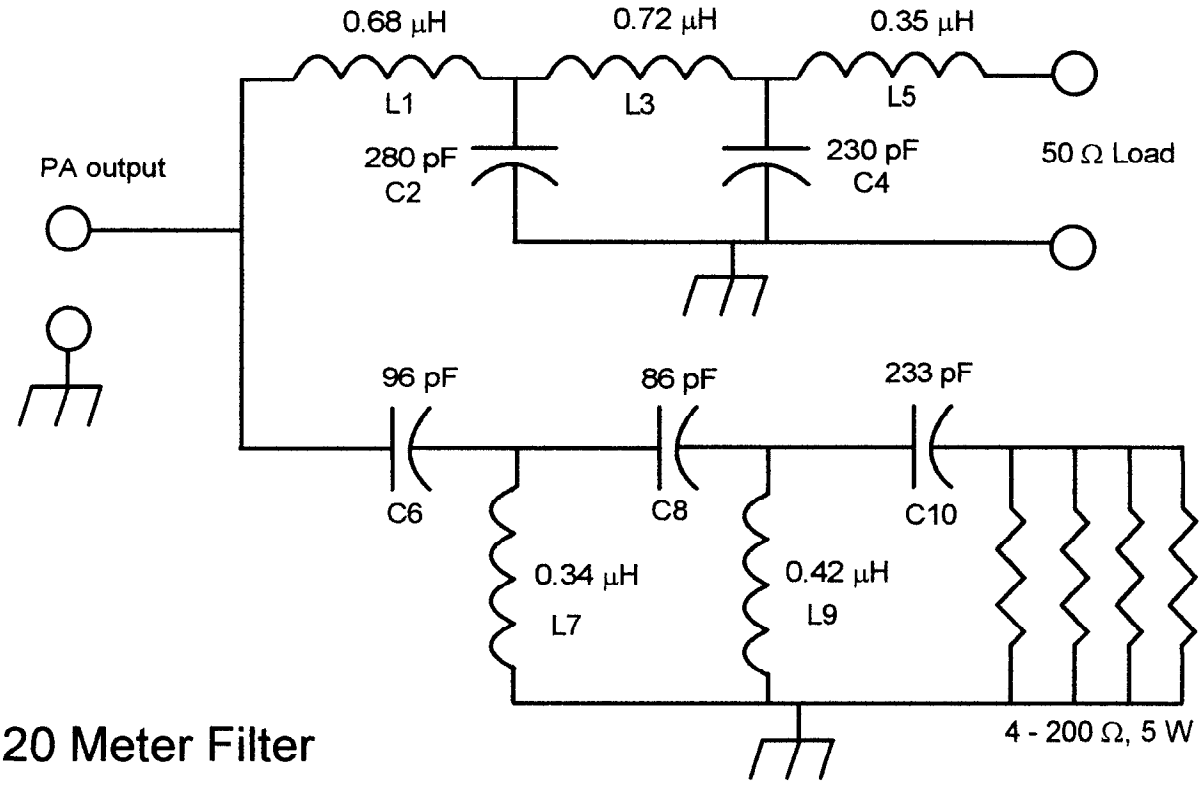




17/15 Meter Filter

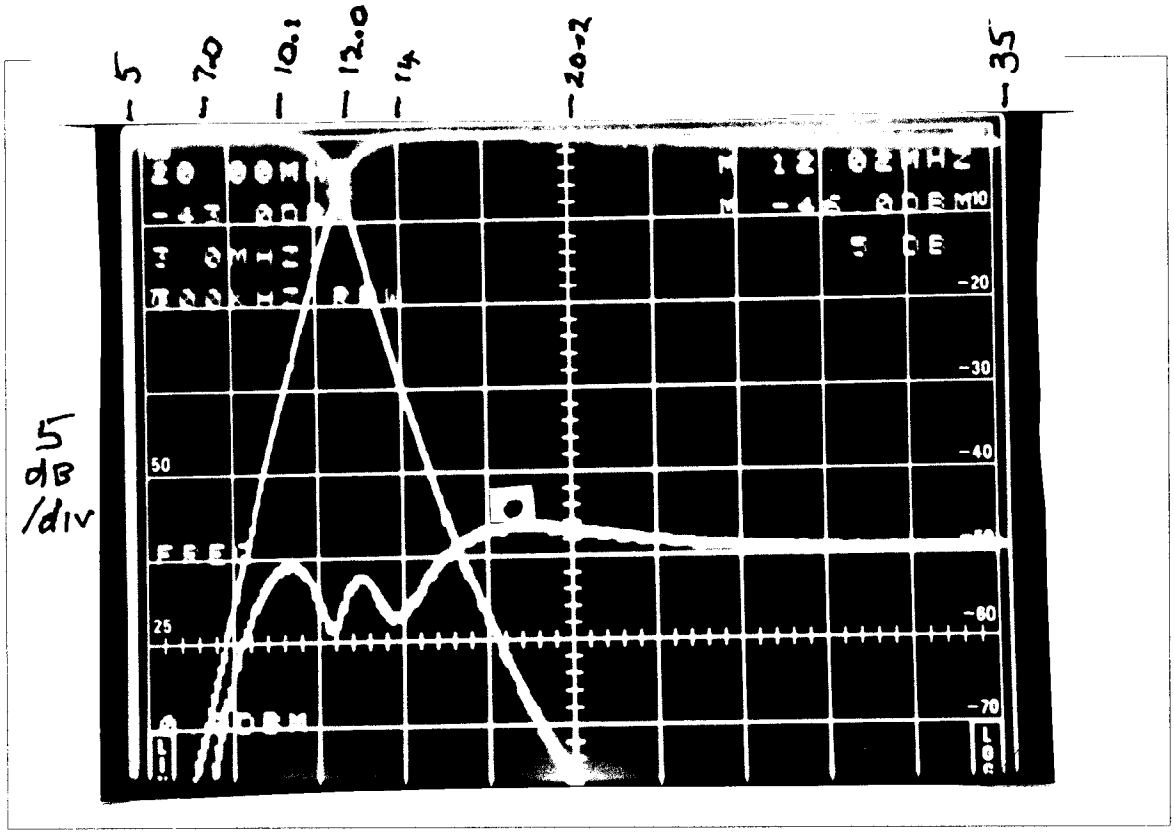
L1	T-106-6	5T #18	270 deg
L3	T-106-6	6T #18	270 deg
L5	T-106-6	4T #18	270 deg
L7	T-50-2	4T #22	180 deg
L9	T-50-2	5T #22	180 deg

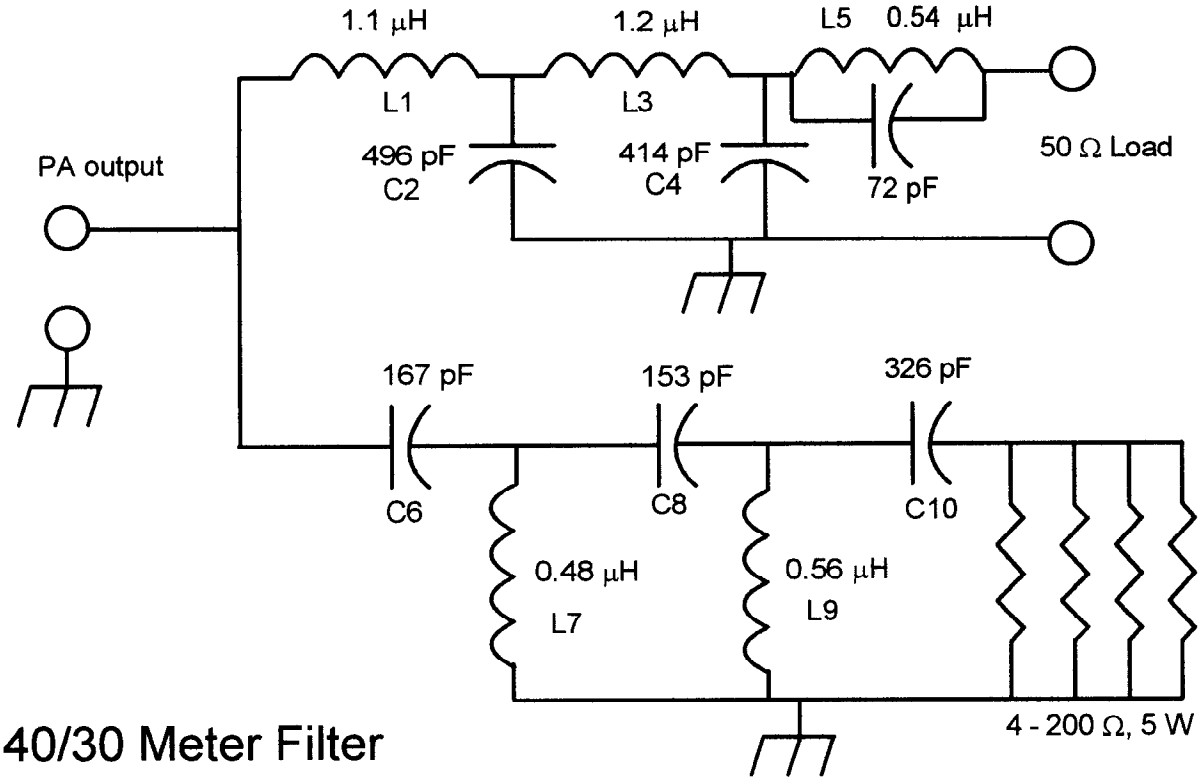




20 Meter Filter

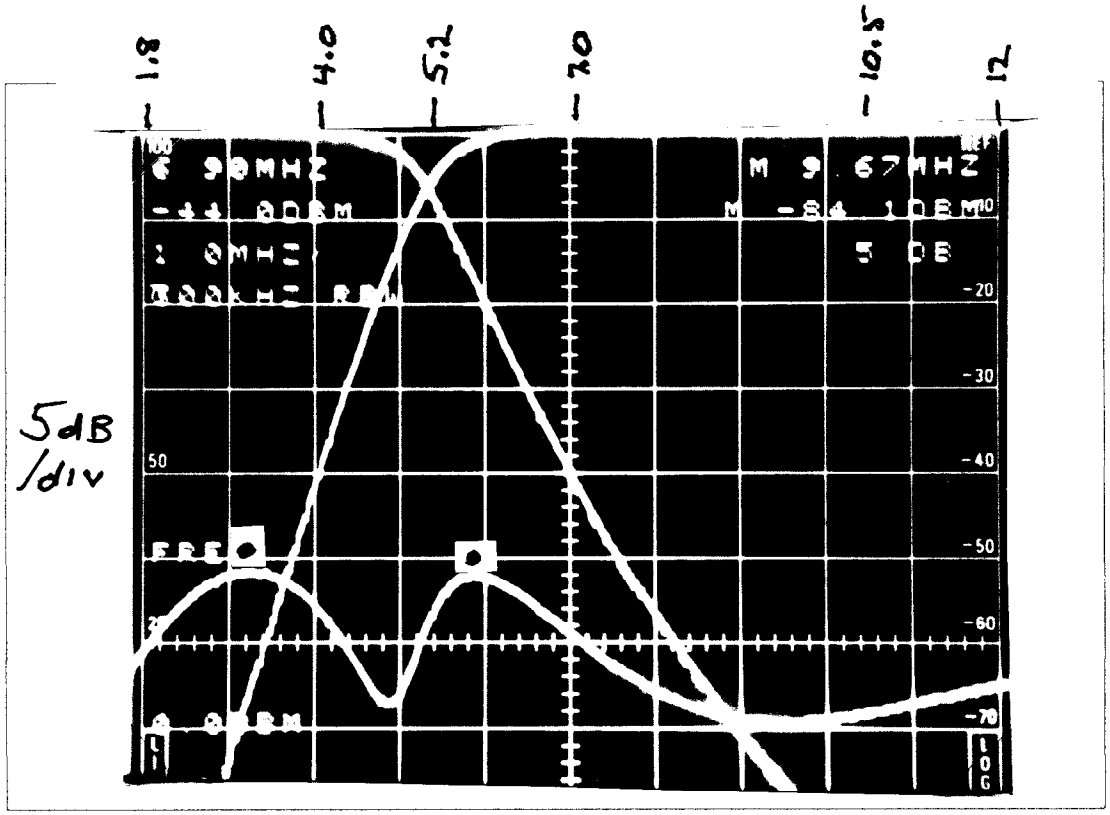
L1	T-106-6	6T #18	180 deg
L3	T-106-6	7T #18	270 deg
L5	T-106-6	4T #18	270 deg
L7	T-80-2	5T #18	180 deg
L9	T-80-2	6T #18	180 deg

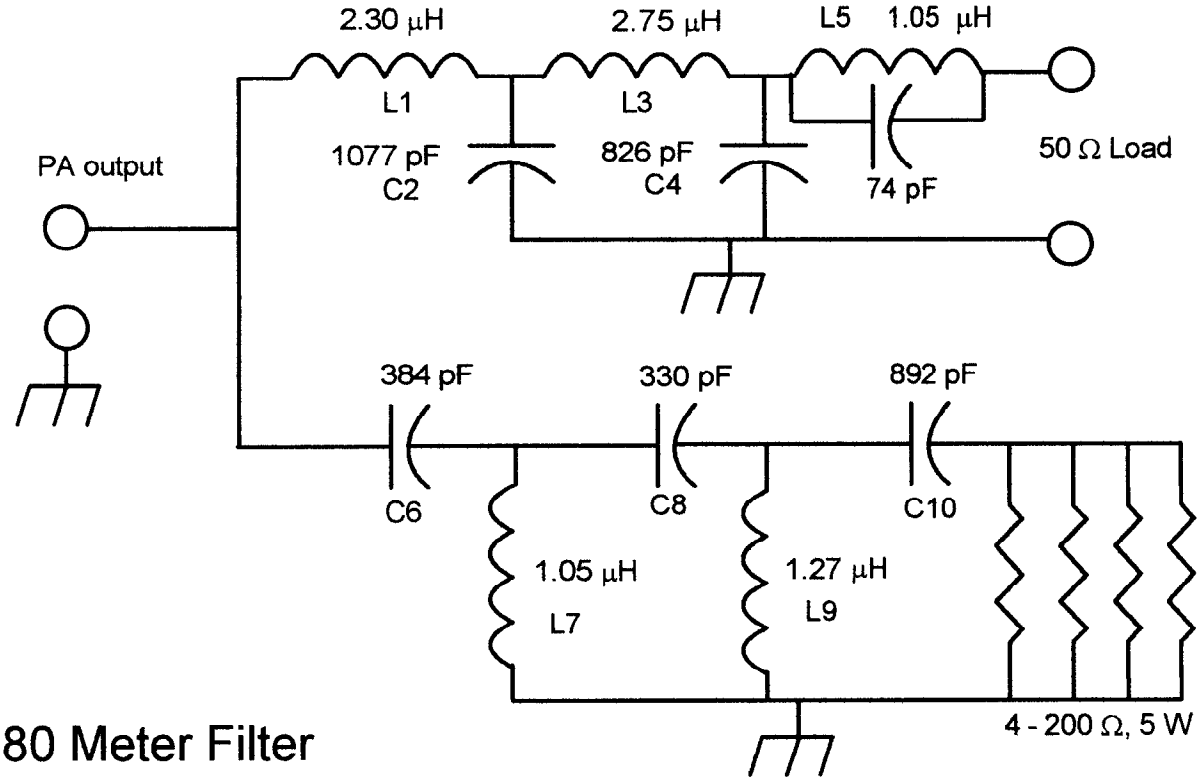




40/30 Meter Filter

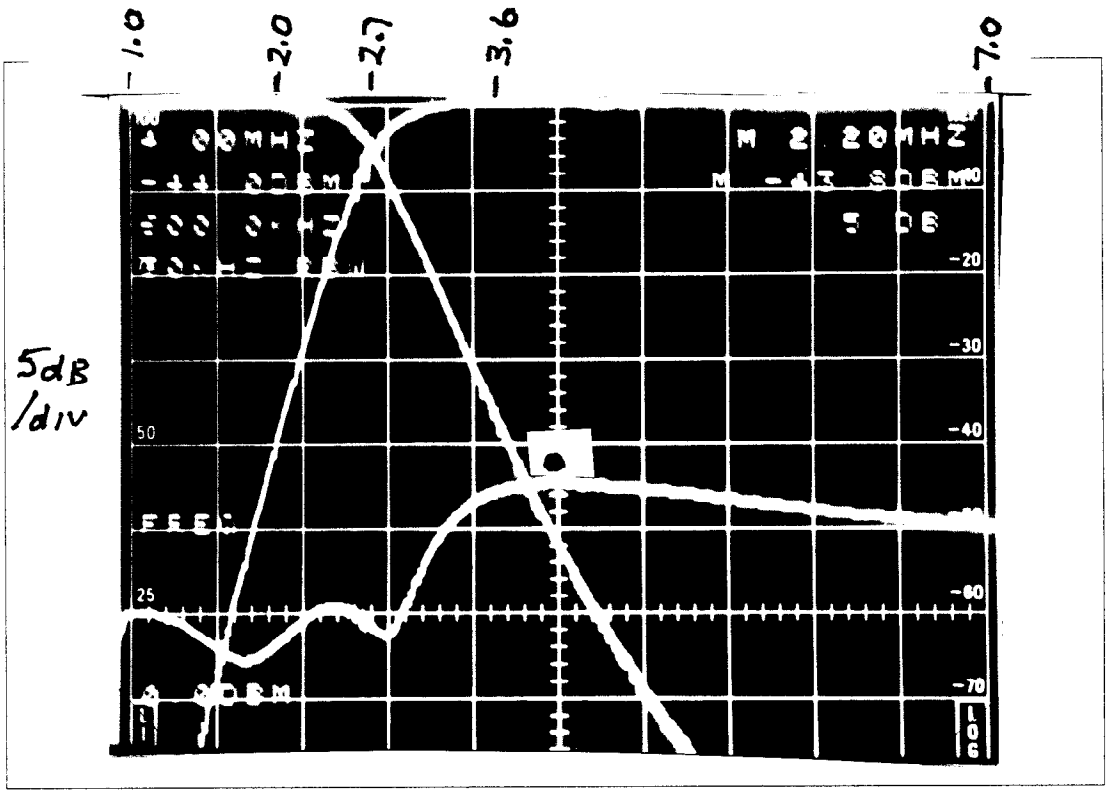
L1	T-106-2	8T #18	270 deg
L3	T-106-2	8T #18	235 deg
L5	T-106-2	5T #18	270 deg
L7	T-80-2	6T #18	135 deg
L9	T-80-2	7T #18	135 deg

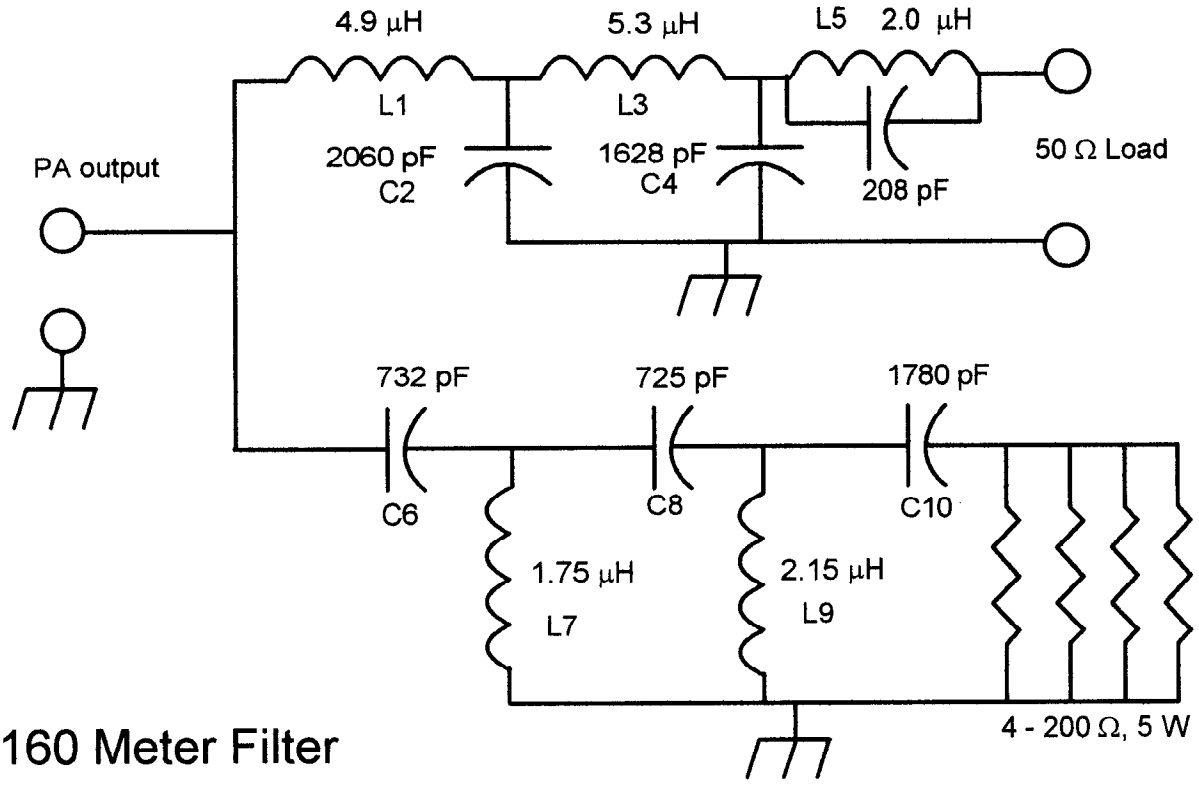




80 Meter Filter

L1	T-106-2	12T #18	270 deg
L3	T-106-2	13T #18	270 deg
L5	T-106-2	8T #18	270 deg
L7	T-80-2	11T #18	200 deg
L9	T-80-2	13T #18	225 deg





160 Meter Filter

L1	T-106-2	18T #18	270 deg
L3	T-106-2	18T #18	225 deg
L5	T-106-2	11T #18	270 deg
L7	T-80-2	15T #18	200 deg
L9	T-80-2	17T #18	200 deg