

ADDENDUM TO

902 MHz NOTES

Donald L. Hilliard - WØPW

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2N918

2N918

MRF901

≈80mw available this point

145.6

437

437

437

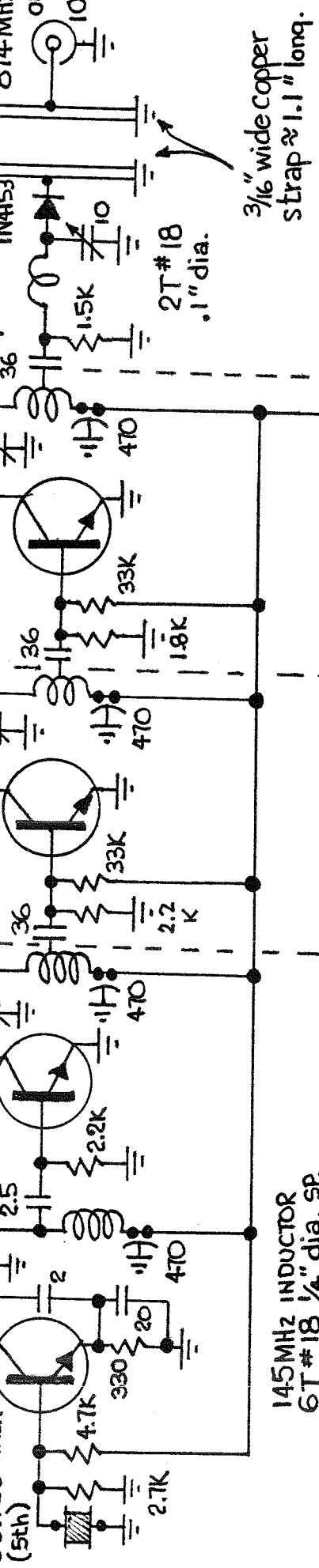
80.926 MHz.  
(5th)

145 MHz INDUCTOR  
6T #18 1/4" dia. SP.

437 MHz INDUCTORS  
2T #18 1/4" dia. SP.

437 MHz INDUCTORS  
2T #18 1/4" dia. SP.

874 MHz.  
OUT



902 INP.

MIXER MCL  
TFM-15

9T. #24enam  
1/4" form.

40673

28 MHz.  
Output

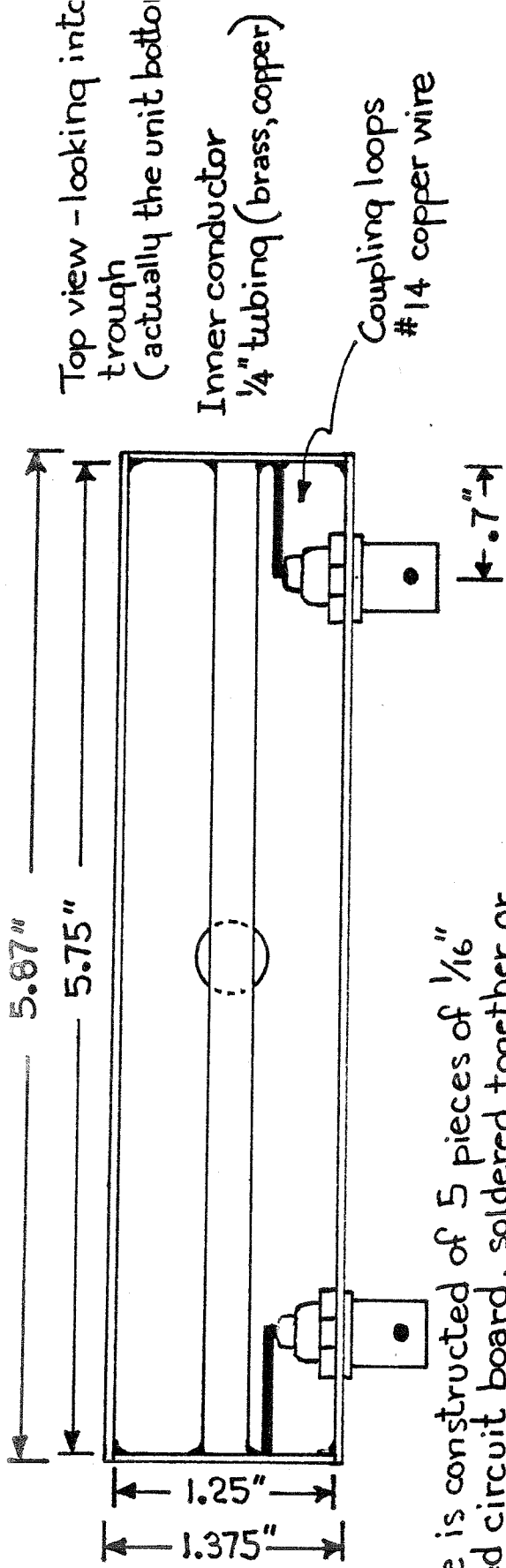
874  
INP.  
+7dbm.

# 902 / 28 MHz. DBM CONVERTER

3/16" wide copper  
strap ≈ 1.1" long.

2T #18  
.1" dia.



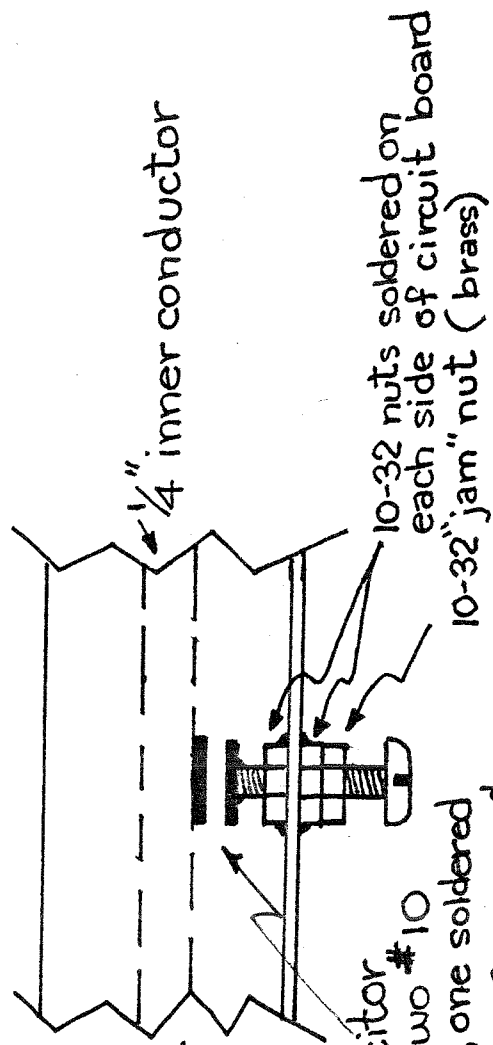


Top view - looking into trough  
(actually the unit bottom)

Inner conductor  
1/4" tubing (brass, copper)

Coupling loops  
#14 copper wire

Trough line is constructed of 5 pieces of 1/16" double sided circuit board, soldered together or it can be fabricated of brass or copper sheet.



Tunes to 902 with capacitor discs  $\approx .1$ " apart.

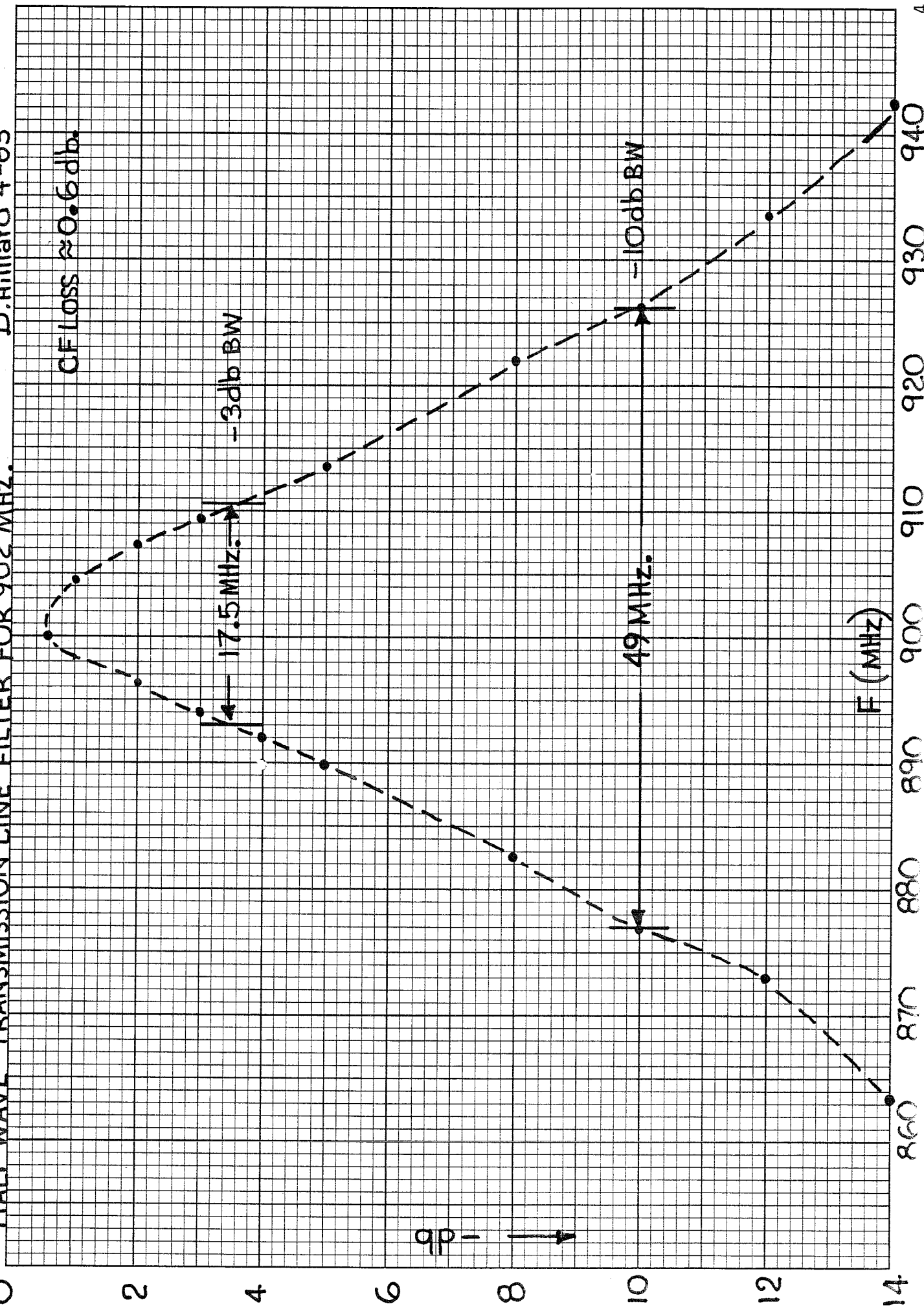
Capacitor comprised of two #10 washers (brass), one soldered to 10-32 tuning screw and the other soldered to the inner conductor.

HALF WAVE TRANSMISSION LINE FILTER  
FOR 902 MHz.

Loss  $\approx 0.6$  db.  
3 db. BW  $\approx 17.5$  MHz.

This filter is similar to one described by K6ZMW in his 1296 article, HAMRADIO, July 1977, p.10.

# HALF WAVE TRANSMISSION LINE FILTER FOR 902 MHz. D. Hilliard 4-83

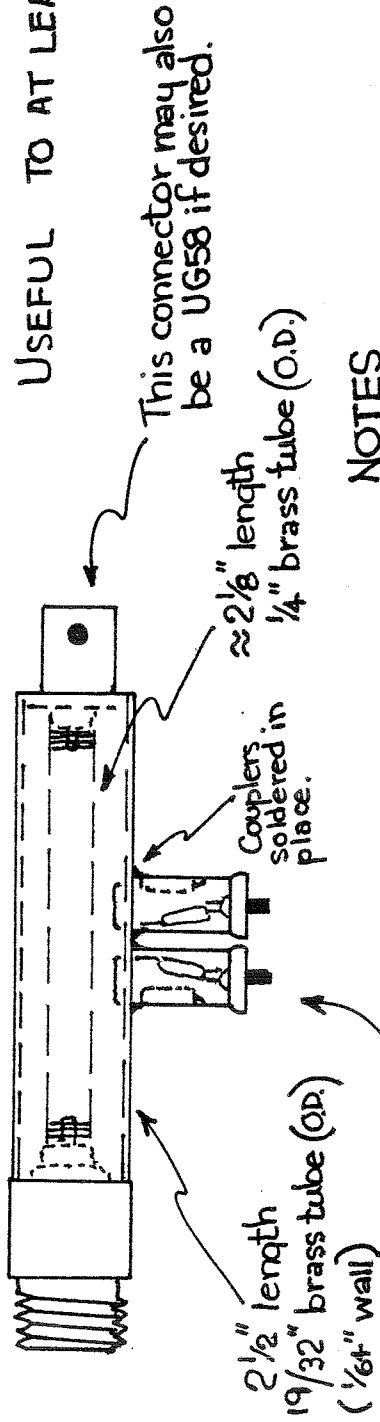


UG58 (flange removed)

UG1094

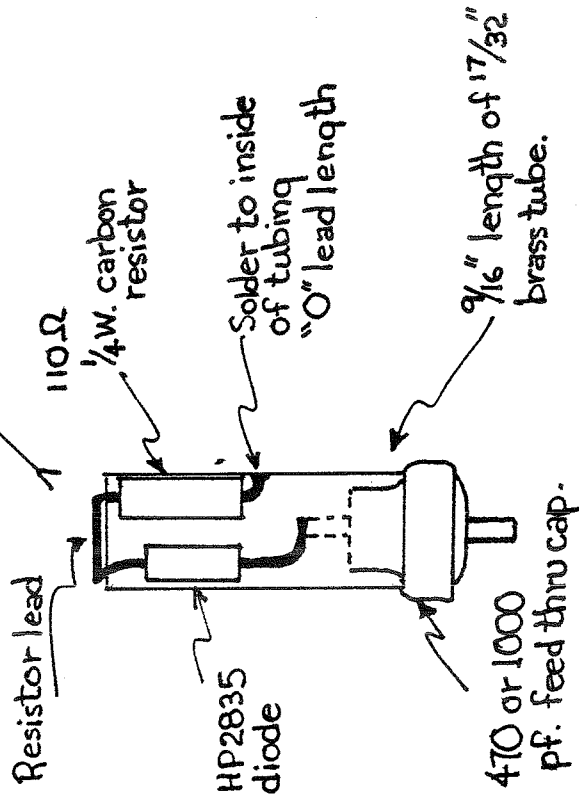
# DIRECTIONAL POWER MONITOR COUPLING UNIT

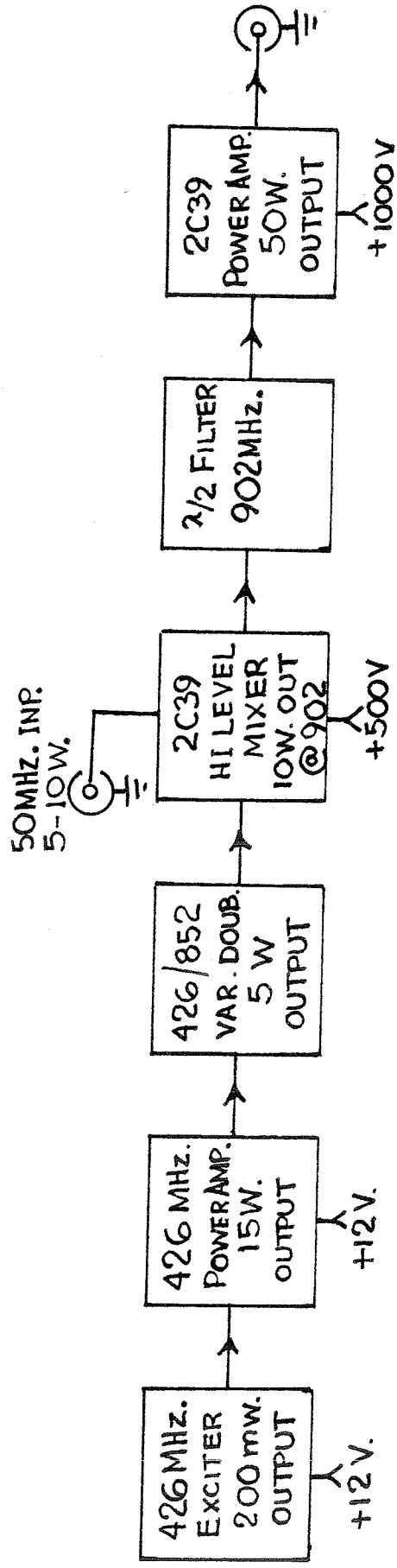
USEFUL TO AT LEAST 1296 MHz.



## NOTES

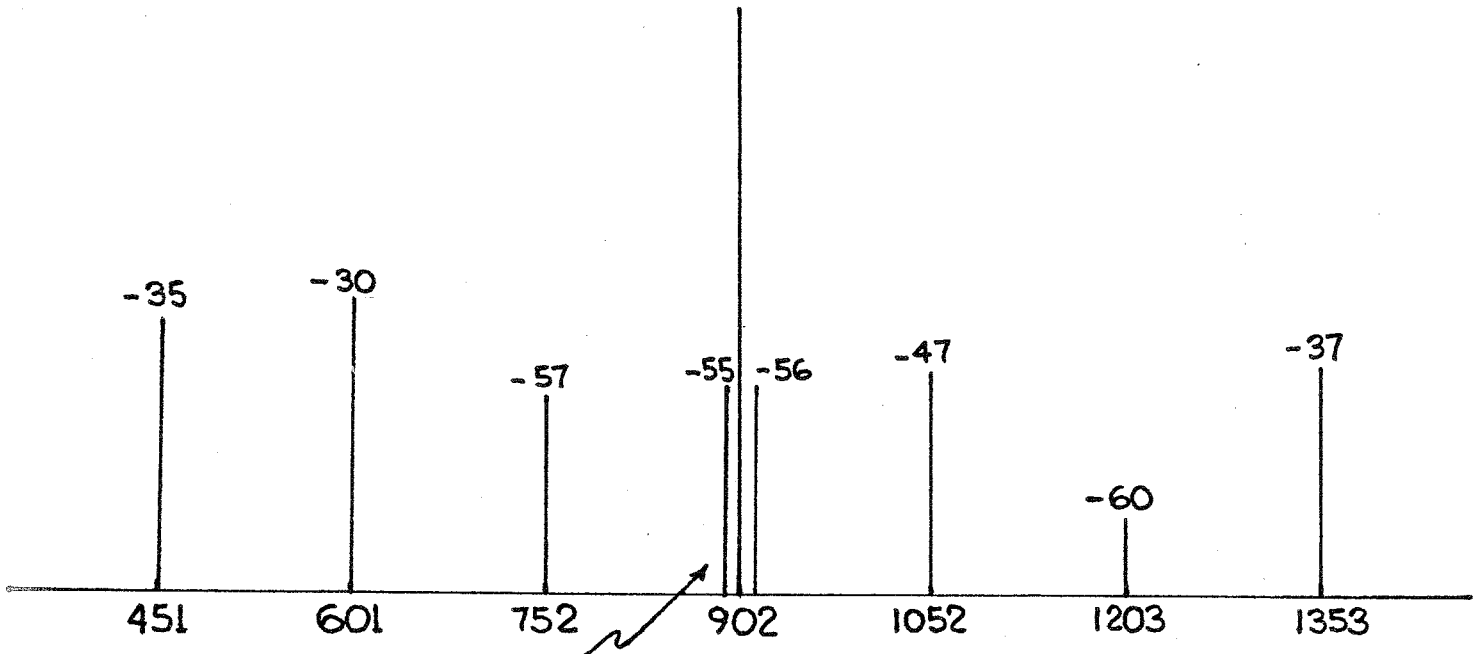
- 1) Inner conductor assembly. Pins of BNC & N connectors wound with #22 tinned copper so that  $1/4$ " inner conductor fits tightly over. Solder both in place. BNC end should slide through outer conductor. Connectors may then be soldered to outer conductor. This assembly then makes a short length of  $49\ \Omega$  line. Be sure coupler access holes are drilled in outer conductor before soldering.
- 2) Be sure couplers are oriented  $180^\circ$  apart.
- 3) depth of coupler penetration: see drawing above. Coupling loops should just penetrate inside wall of outer conductor.





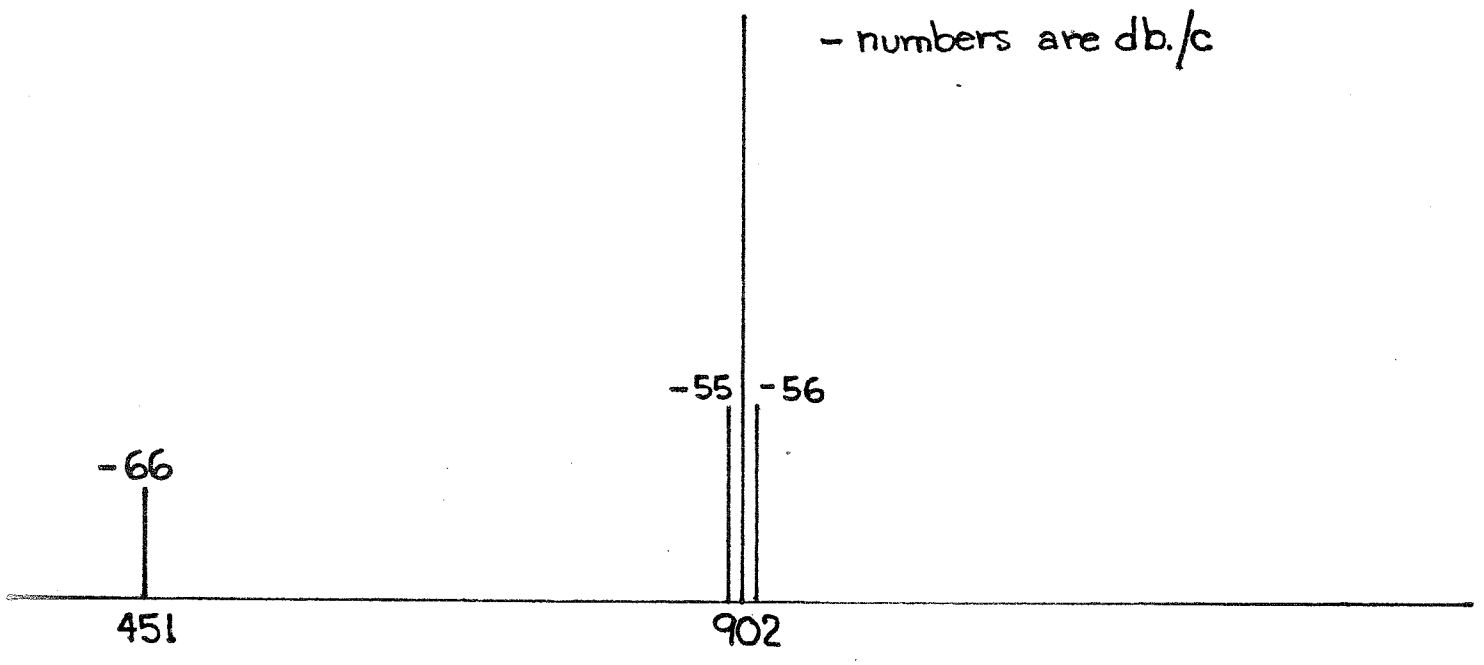
### 902 MHz. TRANSVERTER

This method of generating cw/ssb at 902 is similar to K6ZMW's method for generating a 1296 signal. His article in July 1977 HAM RADIO, p. 10, should be consulted before attempting this project.



Sidebands  
 ≈ 13 MHz.

902 MHz. 7 WATT TRANSMITTER  
 USING IN5149 VARACTOR DOUBLER  
 HP8555A / HP8640B 4-12-83  
 - numbers are db./c



As above except 3 pole  
 interdigital filter in output.