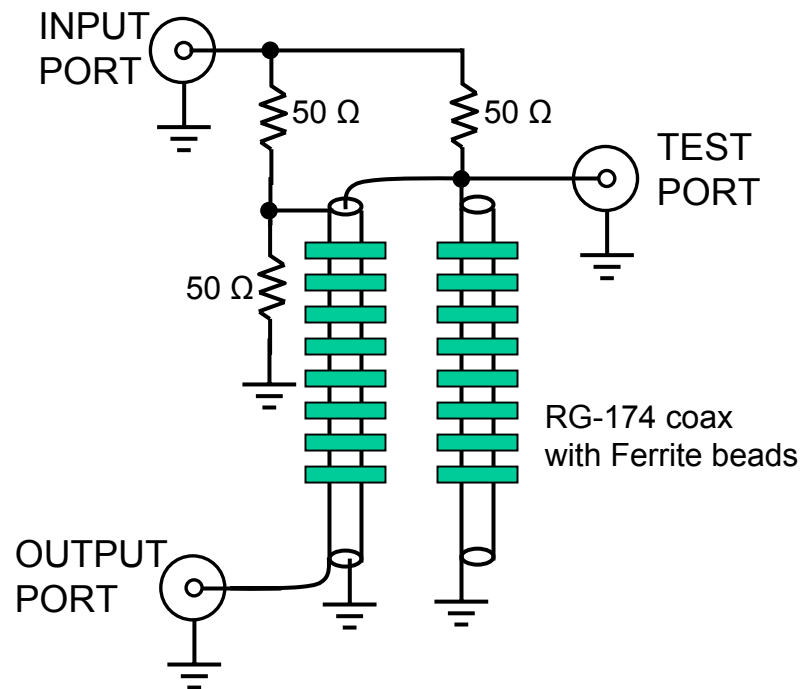
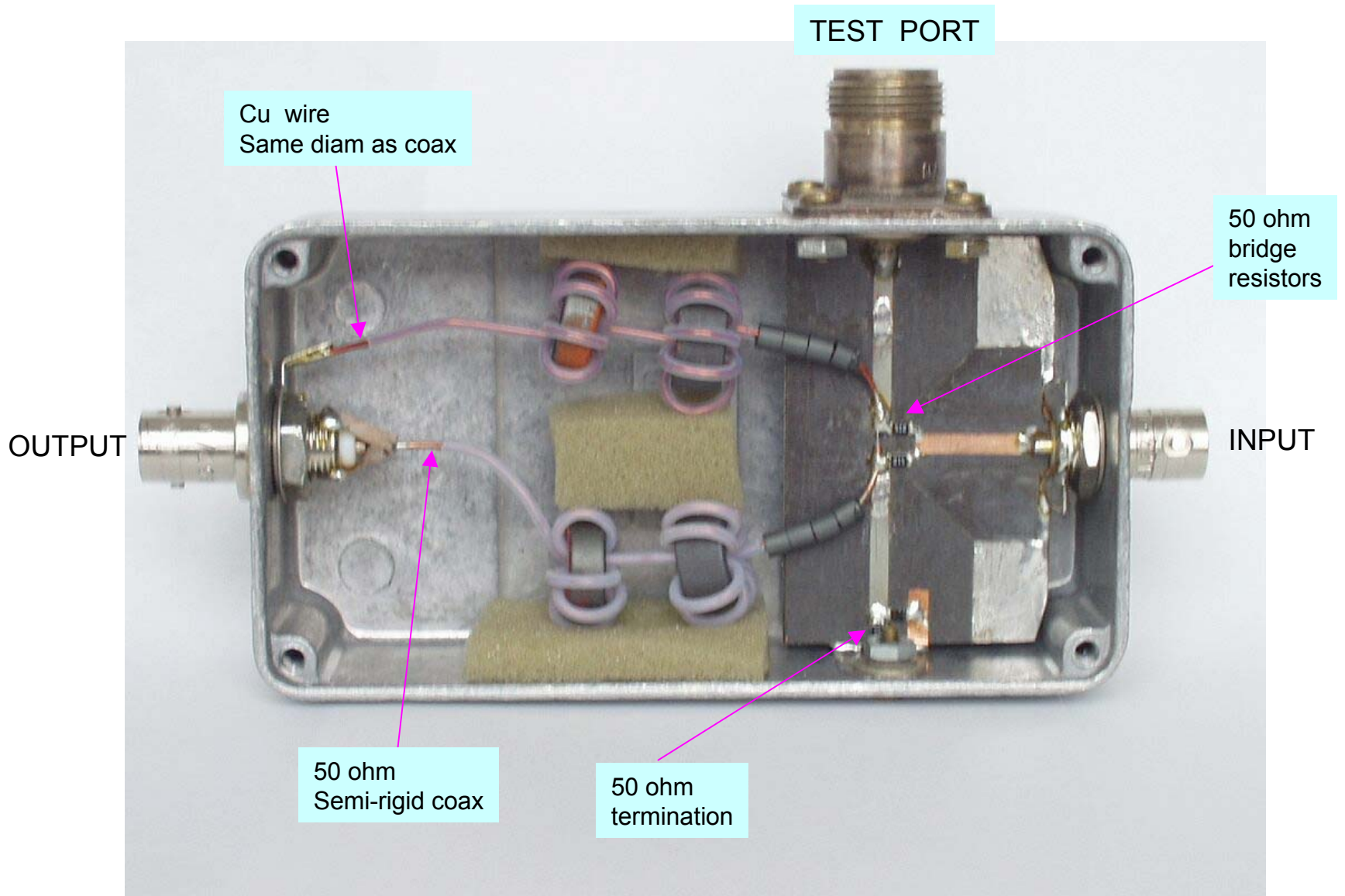


RETURN LOSS BRIDGE SCHEMATIC

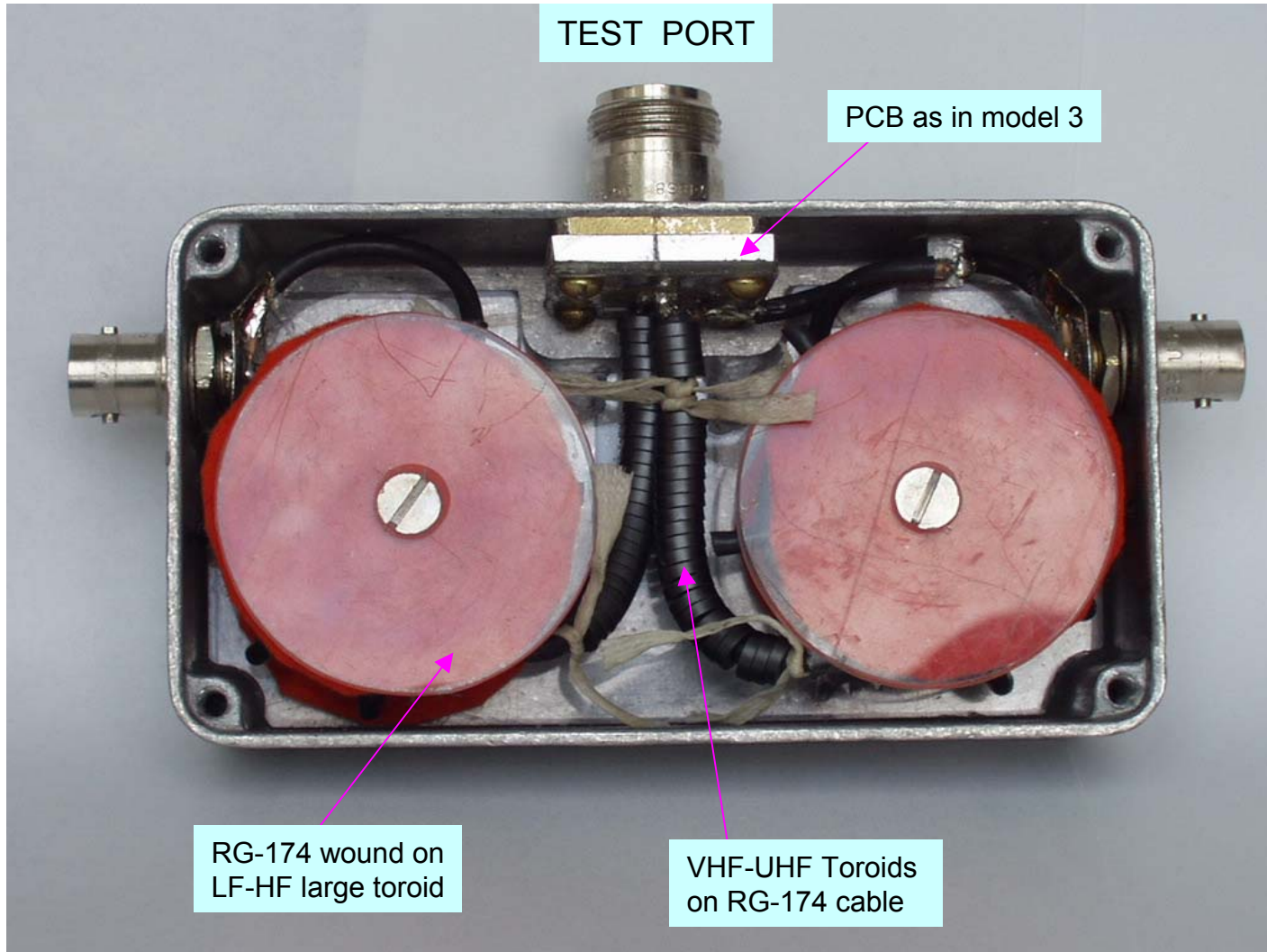
Models 1, 2, 3



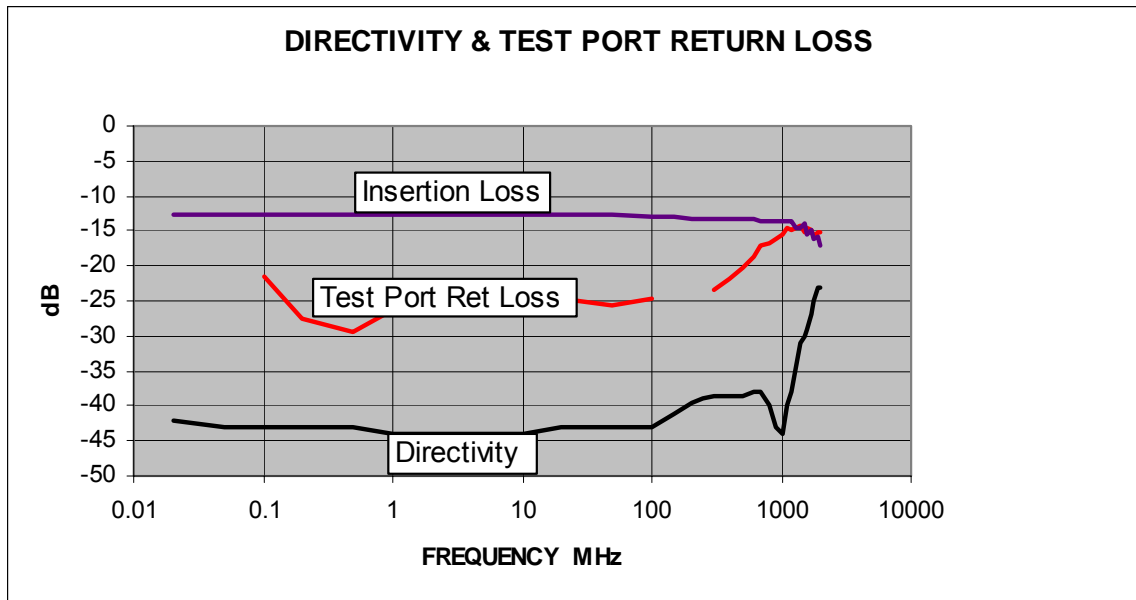


RETURN LOSS BRIDGE MODEL 1 100KHz – 1000 MHz

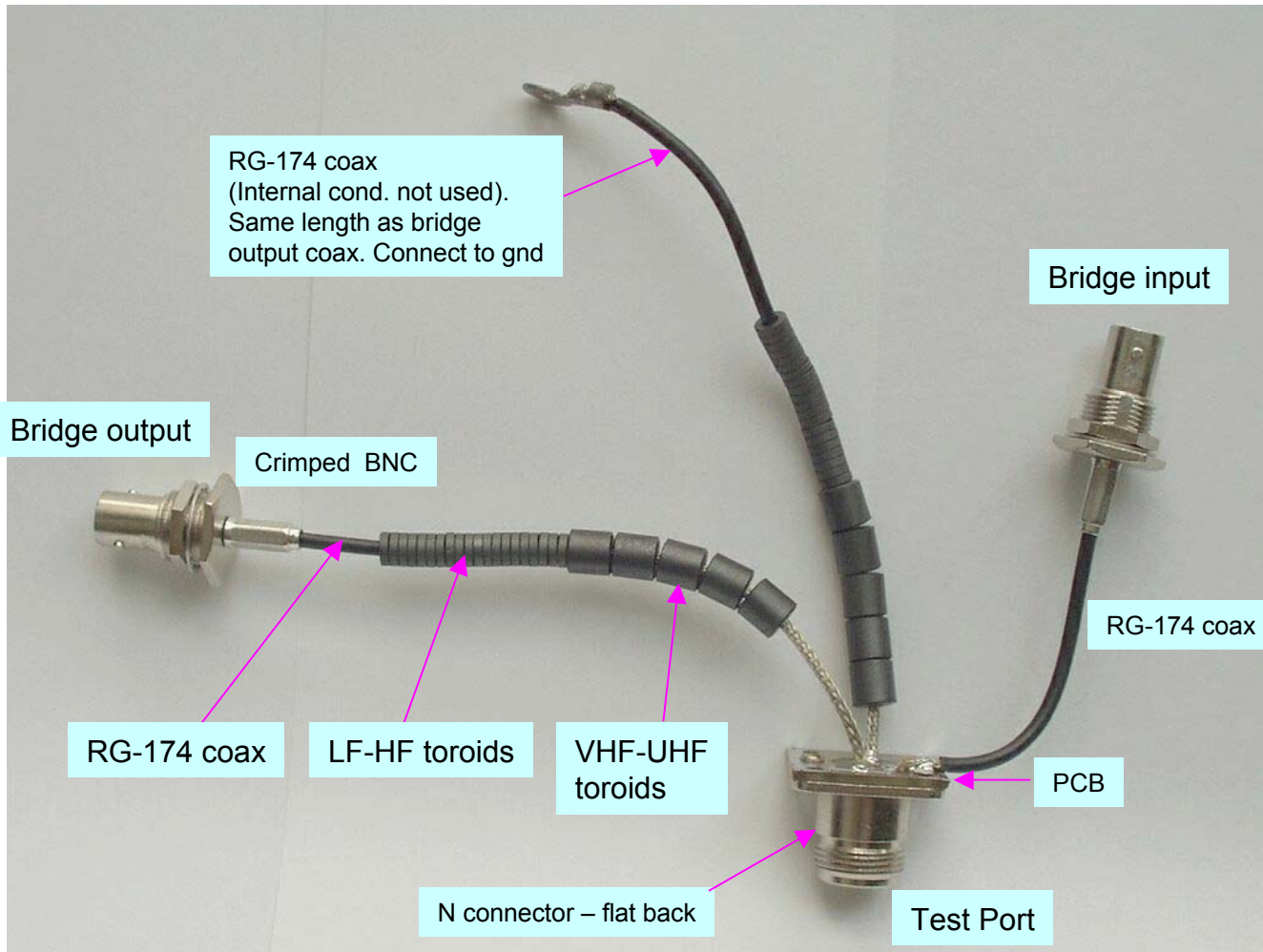
VE2AZX



RETURN LOSS BRIDGE MODEL 2 20KHz – 2000 MHz

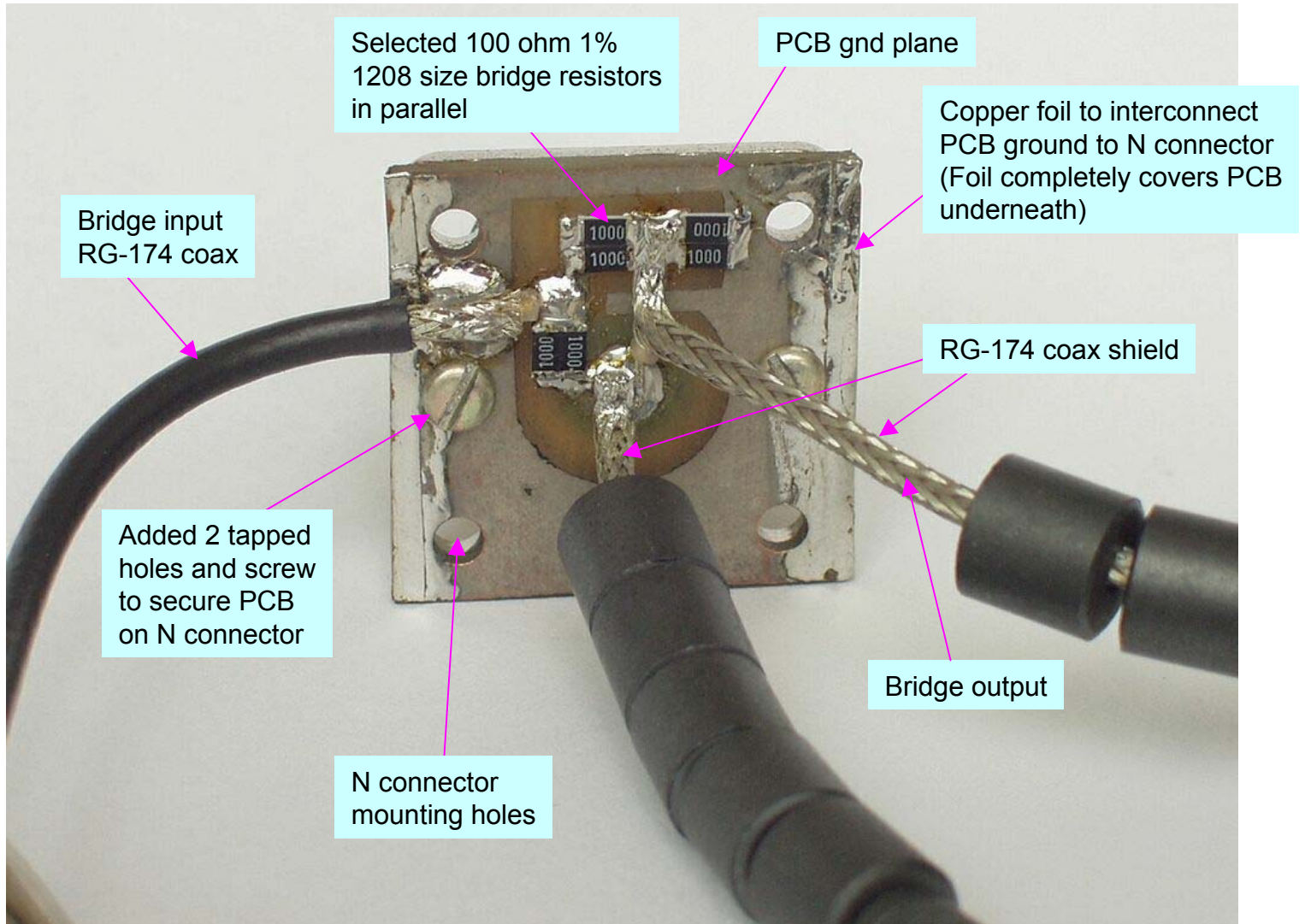


RETURN LOSS BRIDGE MODEL 2 performance tests

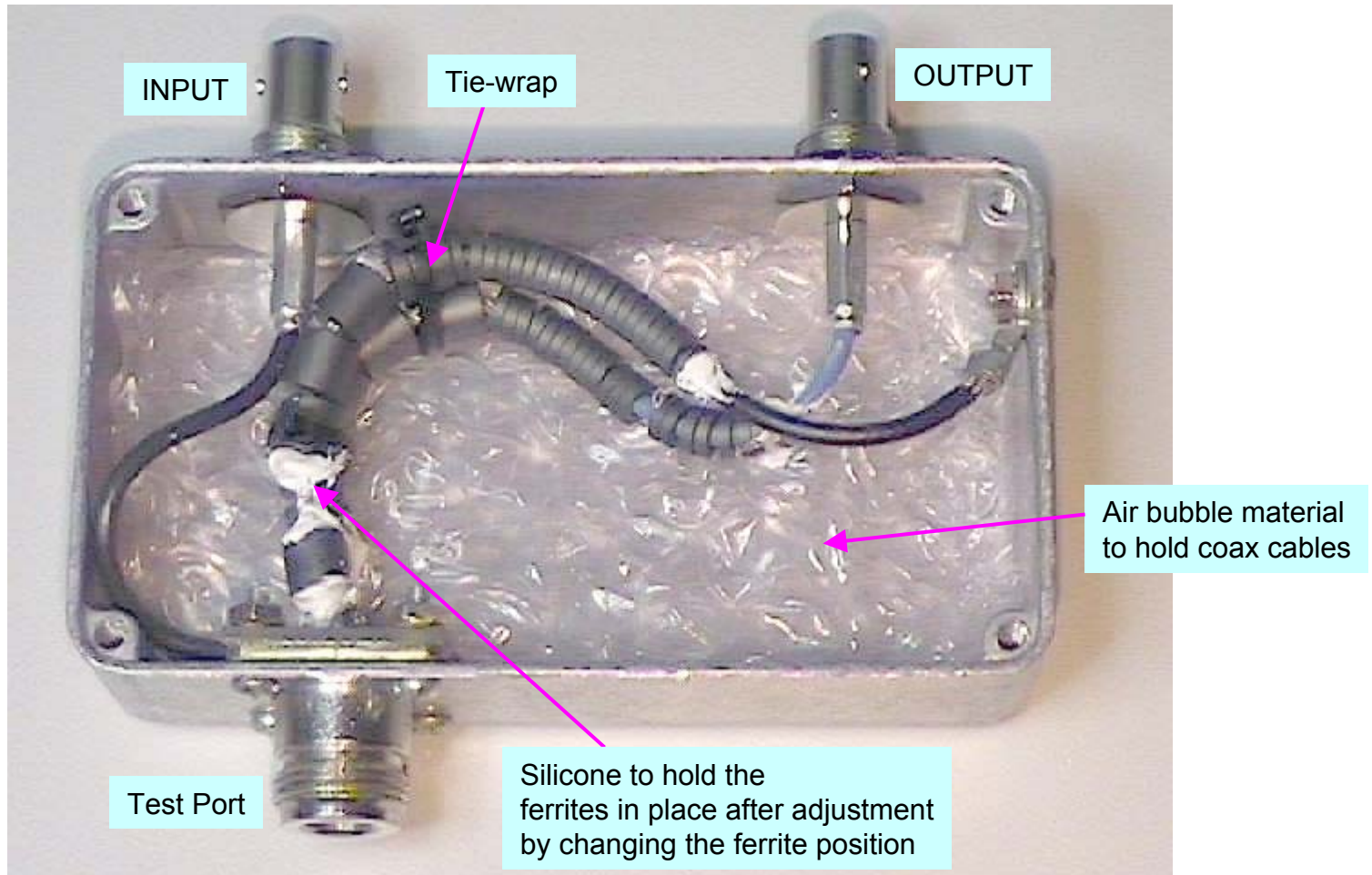


RETURN LOSS BRIDGE MODEL 3 1 MHz to 2500 MHz

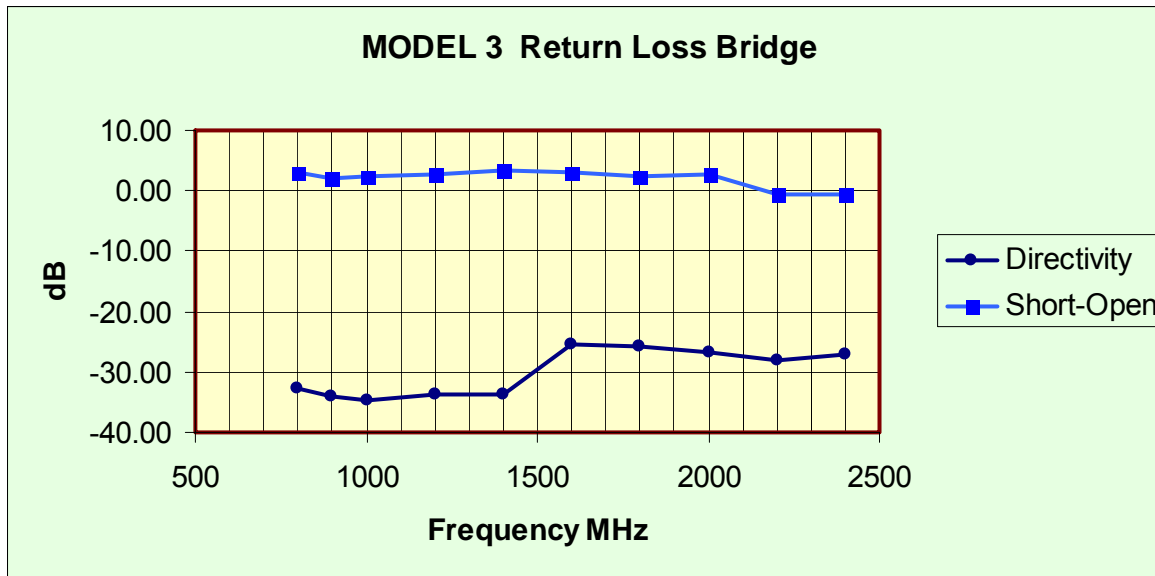
VE2AZX



RETURN LOSS BRIDGE MODEL 3 N Connector with PCB



RETURN LOSS BRIDGE MODEL 3 bridge mounted in its enclosure



RETURN LOSS BRIDGE MODEL 3 Measured data

RETURN LOSS BRIDGE MODEL 3

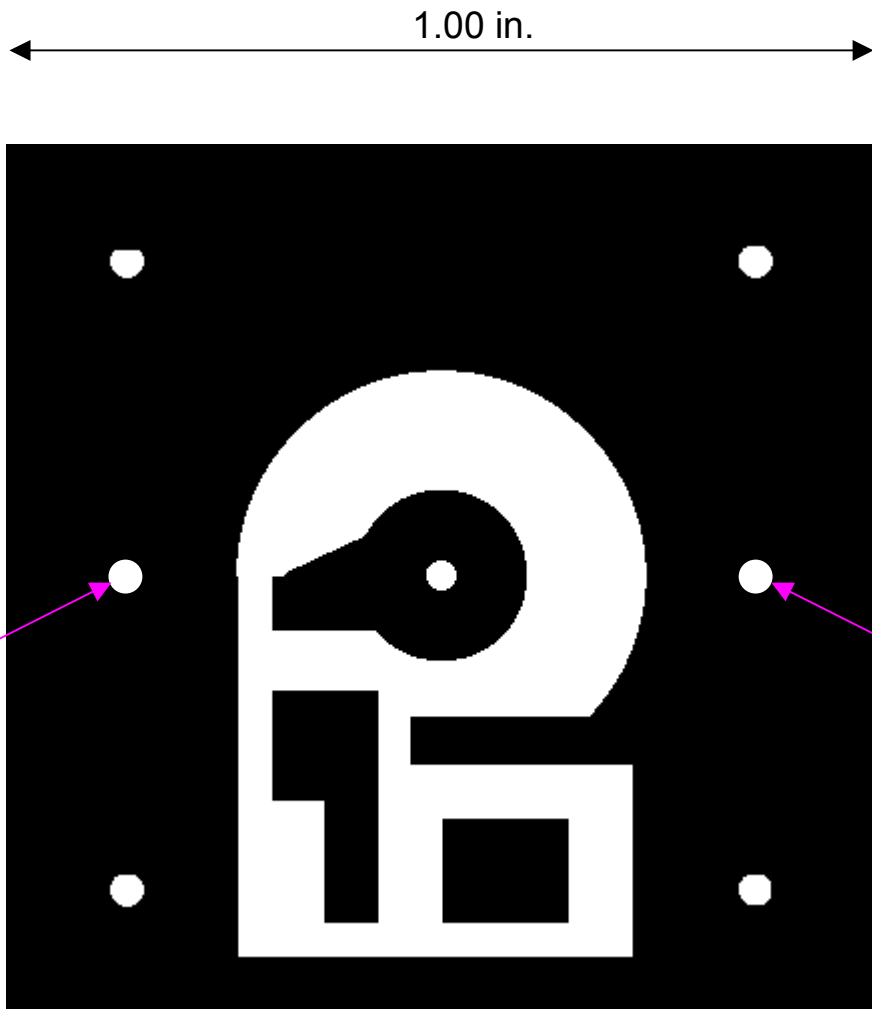
Stocklist

QTY

- 10 Amidon FB43-801 Ferrite beads ($\mu=850$)
- 40 Amidon FT-23H Ferrite toroids ($\mu=15000$)
- 2 BNC Bulkhead Jacks, RG174 Digikey # A1813-ND
- 1 N type connector with flat back
- 1 Al Case Hammond Manufacturing # 1590B
- 6 Selected 100 ohm +/- 0.1 ohm 1206 SMT resistors
- 1 PCB
- 18 in. RG174 miniature coax.

Note that high freq performance critically depends on:

- 1- Using a small PCB, located behind the N test connector.
- 2- Using RG174 bulkhead BNC connectors.
- 3- Adjusting the location of the ferrite beads for best balance, preferably by looking at the S21 curve from 500 to 3000 MHz.



Hole to secure PCB
on N connector

Hole to secure PCB
on N connector

See slide 5

PCB for return loss bridge models 2 and 3

VE2AZX