
Narda-West (Loral) AFD21A8289-15 Compline Duplexer



MODIFICATION FOR 902/927 OPERATION

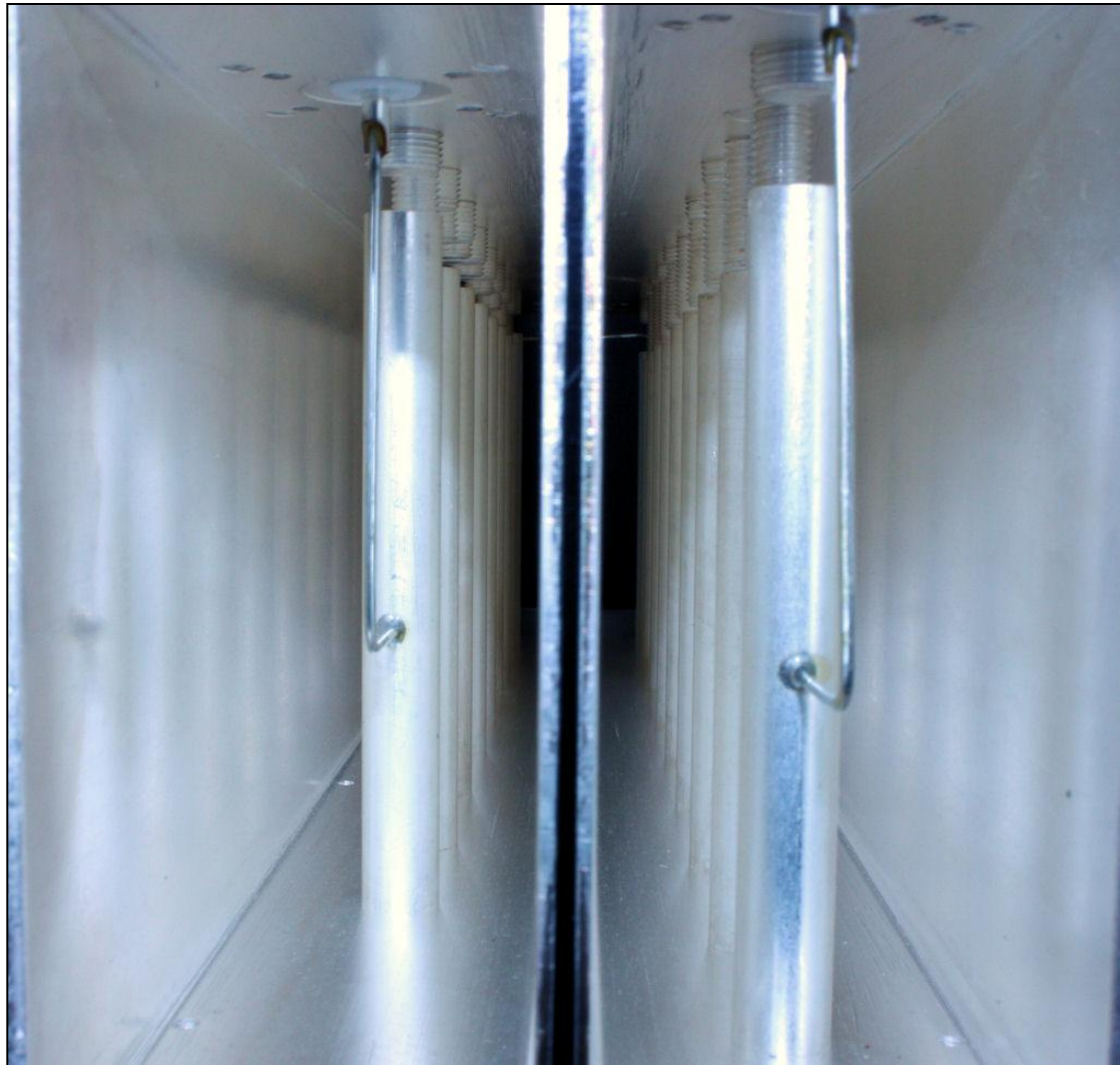
Narda Duplexer Modification

- Two versions of Narda dual combline duplexers (look at top):
 - One has semi-rigid coax coupling lines on top surface of housing. No modification is necessary for this version.
 - The other version has only tuning screws visible. This one needs modification in order to tune to 927/902 MHz amateur frequencies.
- Procedure
 - Remove end covers to allow interior access.
 - Remove tuning screws from top and resonator rods from bottom.
 - Trim approximately 200 mils from resonators (exact dimensions are shown on page 5).
 - Re-assemble combline filters.
 - Tune duplexer: Resonator frequency is adjusted by screw at rod end. Coupling is adjusted by screws between resonators. End resonators affect isolation peaks. Initially tune resonators into passband (return loss is helpful to see mistuned resonators).
- Results
 - Insertion loss should be < 1 dB
 - Isolation should be near 100 dB

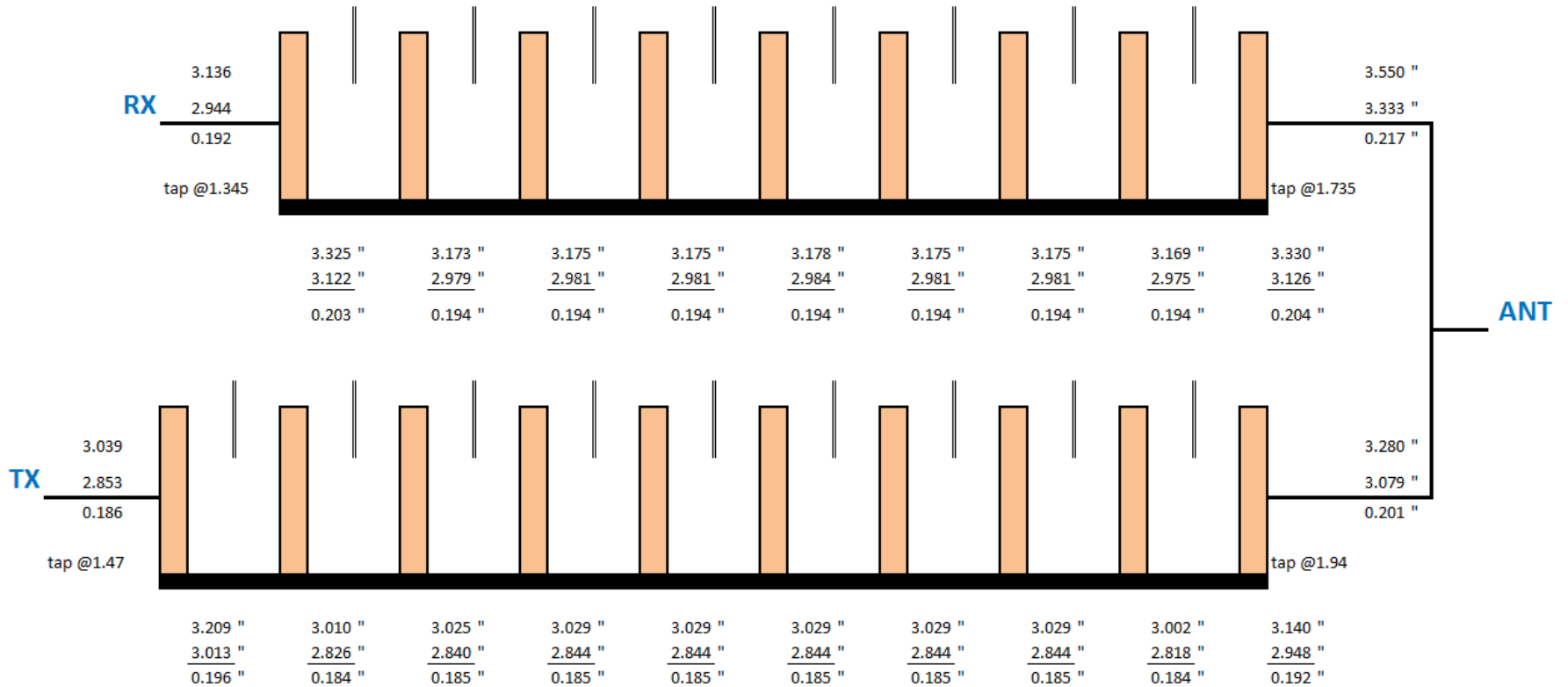
Disassembled Narda Duplexer



Interior View of Resonator Rods



Resonator Rod Scaling

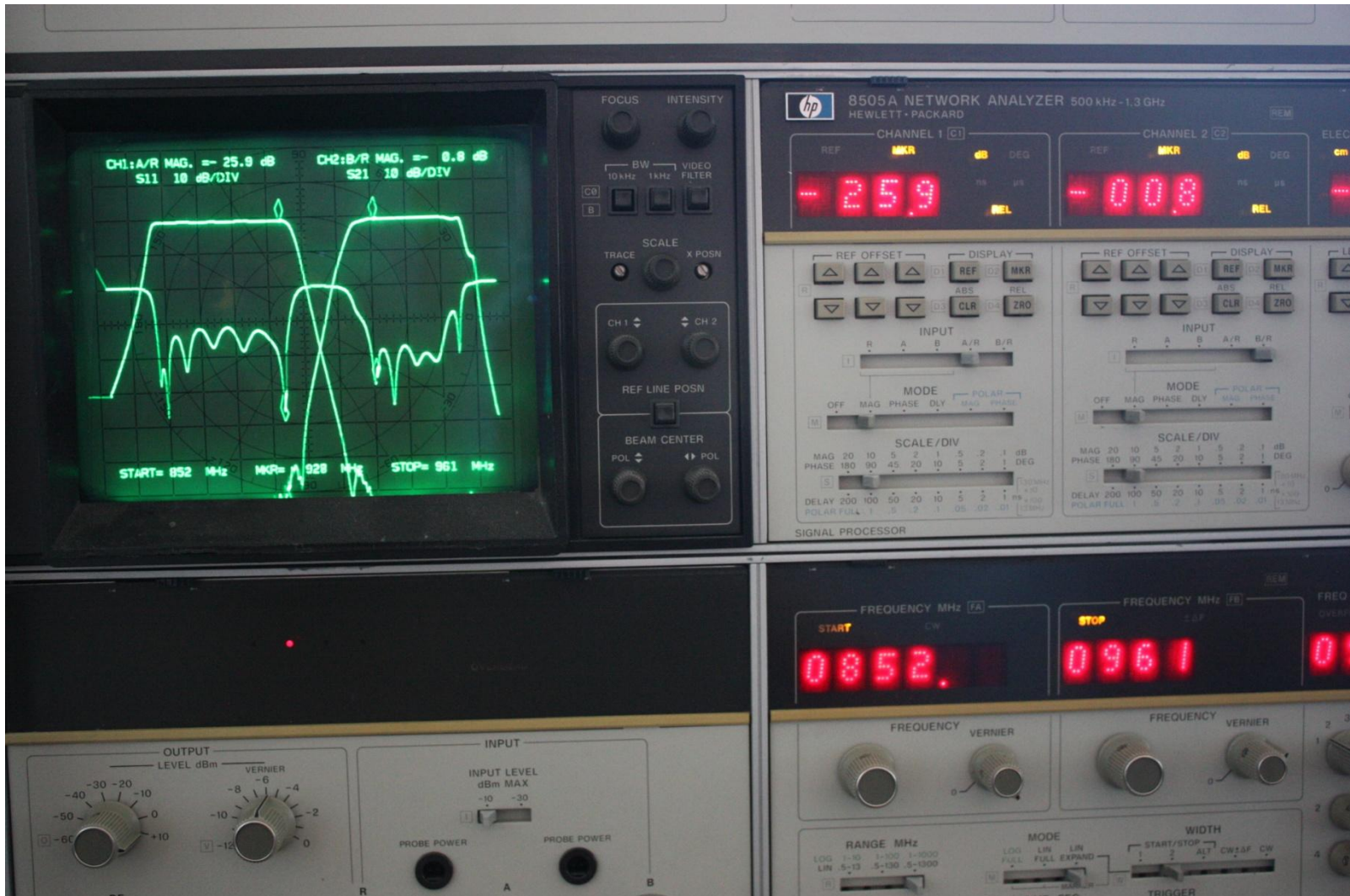


(REMOVE APPROXIMATELY 200 mils FROM ROD LENGTH)

Removed Rod Ends



Swept Response



Completed Narda Duplexer

