

31/3/87

Greetings Jean:

I can't remember what information I left with you. The bandpass filters should have a 3 db bandwidth of 6, 12, 25 kc approximately. This gives ratios of 2 : 1. The shape factor should be less than 1.5 or so. Shape factor is (bandwidth at 60 db / bandwidth at 3 db). Crystals will be needed. If the filters are designed for use with transistors, very well. I'll change the mixer and I.F. tubes to transistors. Please get some literature and send copies to me so I can learn what is available. Don't buy any filters yet.

During 1969/70, I bought several varieties of Litz from:

New England Wire Corp.
(subsidiary of Montgomery Co.)
Lisbon, New Hampshire. fone (603) 838-6629

Their old catalog says they have been in business for 75 years, so they probably still are. The wire has polyurethane covered strands and double nylon covered assembly. Have them send a current catalog. Don't buy any wire, I'll bring some with me.

During same years, I bought ring cores from

Indiana General Co. fone (201) 826-5100
Electronics Division
Keasbey, New Jersey, 08832.

Have them send a current catalog. My cores are size CF-122, material is Q2 ferrite. Using primary 118t of 40/44 litz and secondary of 3/30/44 litz (48t) I built 30-300/600 ohm transformers of 0.1 db loss (2.25%), at 0.9mc. This is better than all but the largest 60cps power transformers. I'll bring wire, ring cores and finished transformer with me, $C_0 \approx 3.6\text{pf}$. We should get some of their rods to compare with rods from Miller. They are 5/16" d x 3.625" long, Q2 material. Find out what they can supply. Longer rods can be shortened.

There is no point to building high inductance, high performance parts if they cannot be measured. At Camden, New Jersey, across Delaware river from Philadelphia is a company that deals in used electronic apparatus. I've forgotten their name. They advertise in electronics magazines. Look for their ads. During same years, I bought a variety of apparatus from them and was well pleased.

The standard Q meter has a minimum capacity of 27pf. There are two high frequency (60-220mc) models. One is type 170 with 10pf minimum. Other is type 1907 with 6pf minimum. Please contact them and purchase a 6pf instrument. I want to modify it to operate in range 1.0 to 2.5mc. You will hear from me again.

Grote
Grote, Eber