

贴片版 CDG2000 BPF 制作记录

BG6RDF

160 米

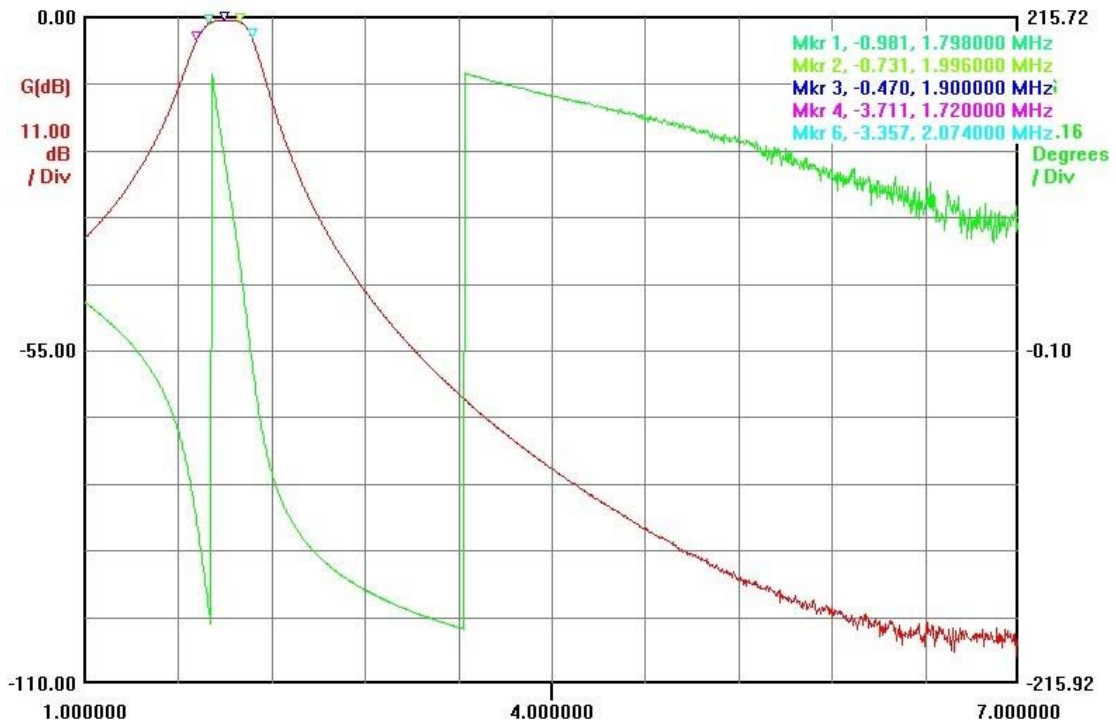
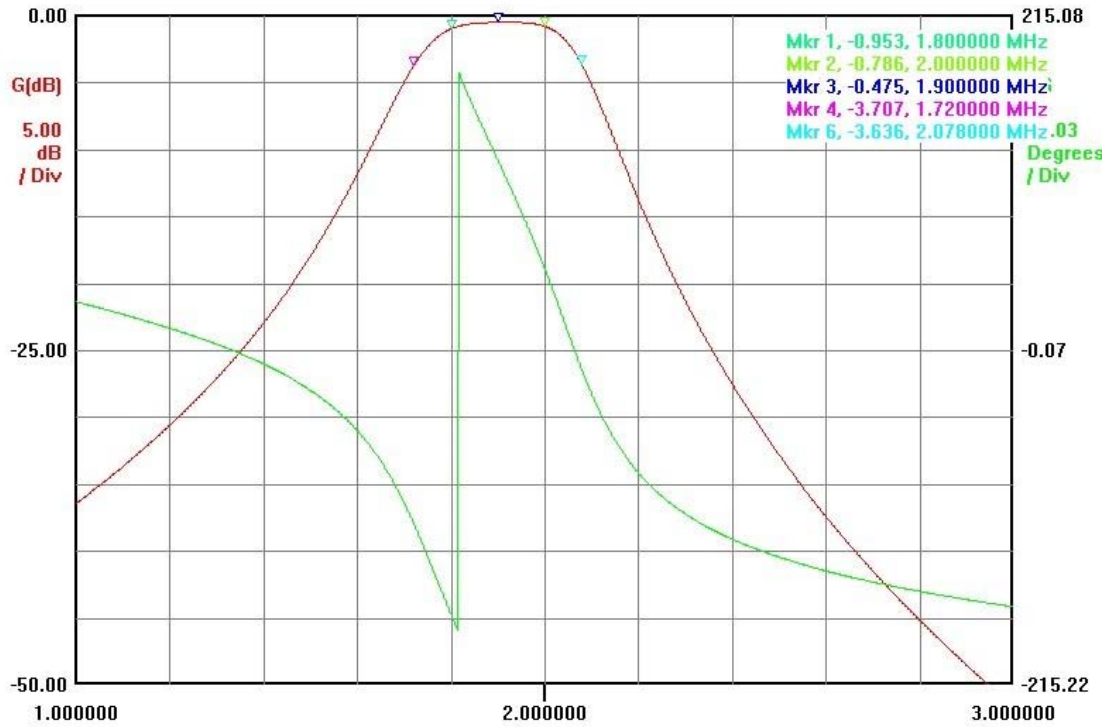
T50-2: 55 匝

C4, C10: 180pF+1000pF

C6, C8: 1800pF+1800pF

C5, C9: 270pF+330pF

C7: 270pF+330pF+27pF



80 米

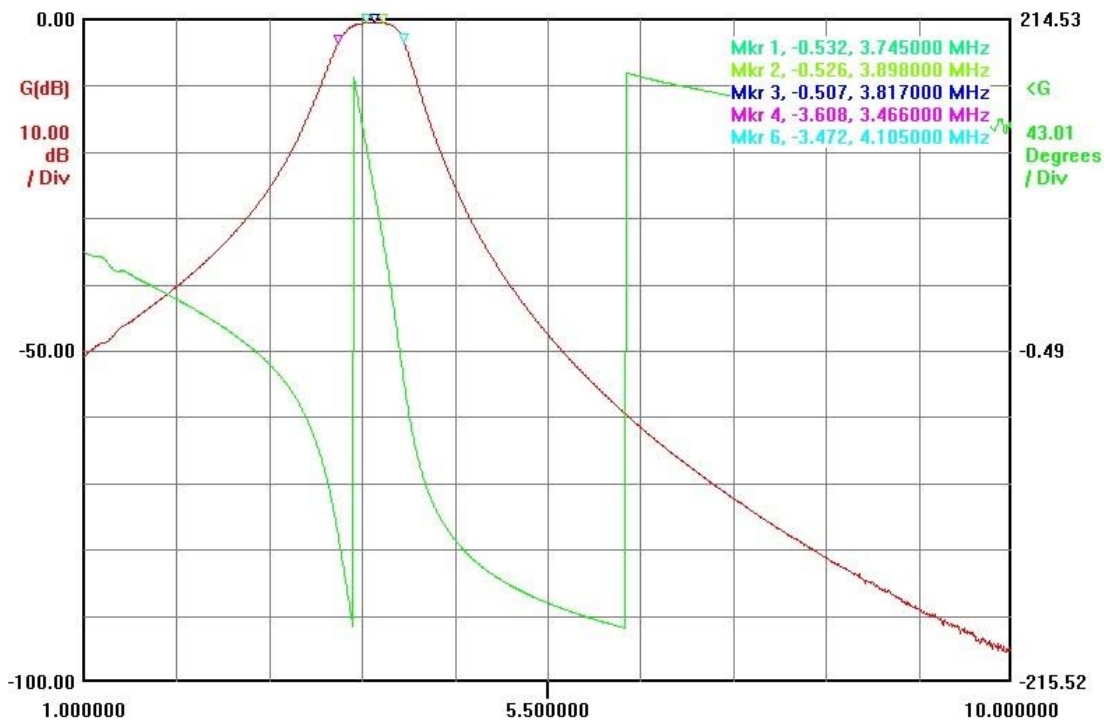
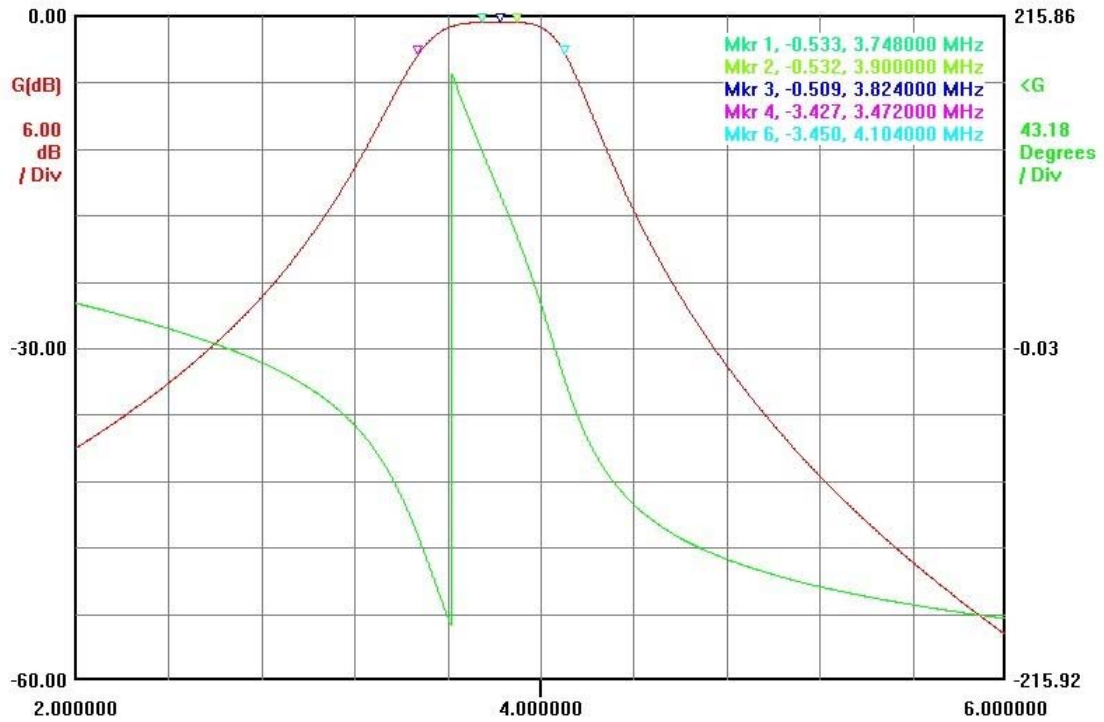
T50-2: 41 匝

C11, C17: 270pF+330pF

C13, C15: 1800pF

C12, C16: 150pF+130pF

C14: 150pF+130pF+5pF



40 米

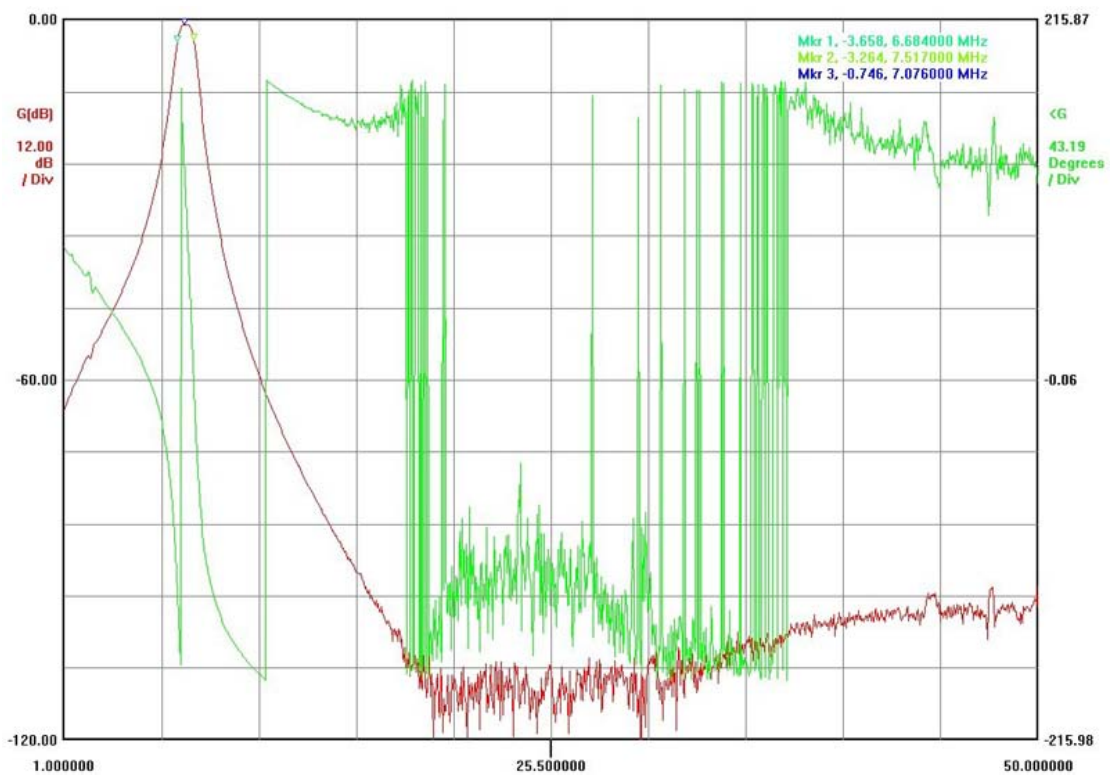
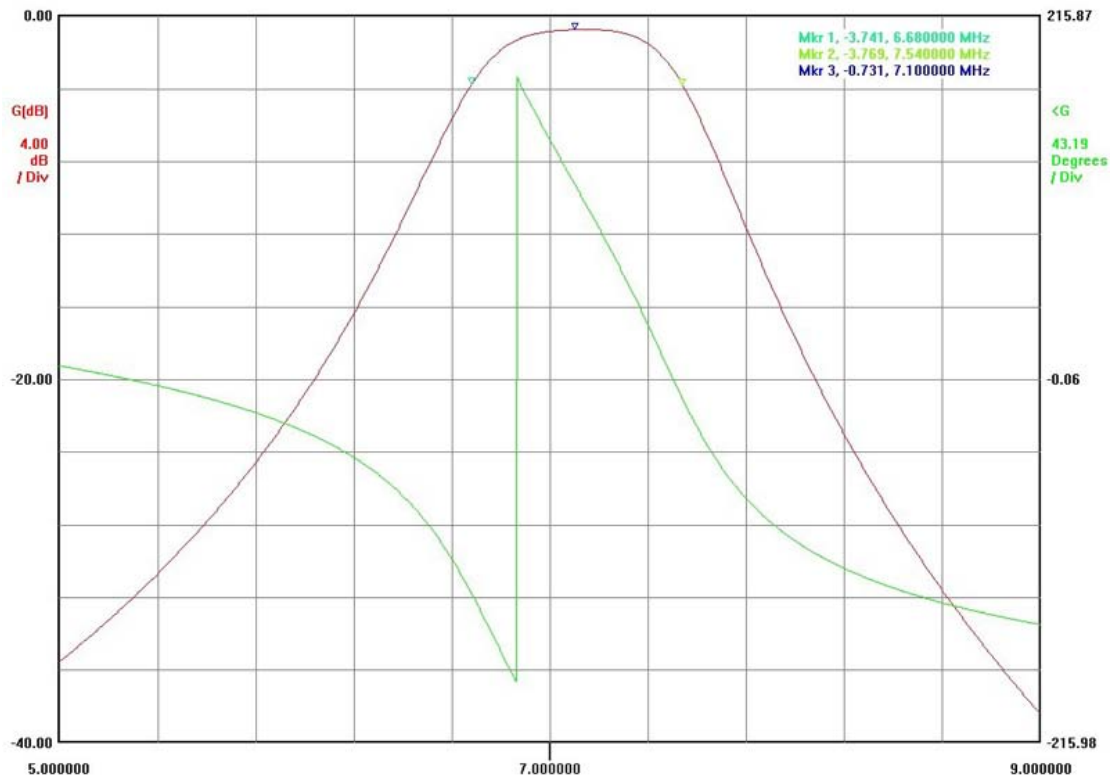
T50-6: 37 匝

C20,C22: 680pF+270pF

C19,C23: 100pF+10pF

C21: 100pF+7pF

C18, C24: 100pF+220pF



30 米

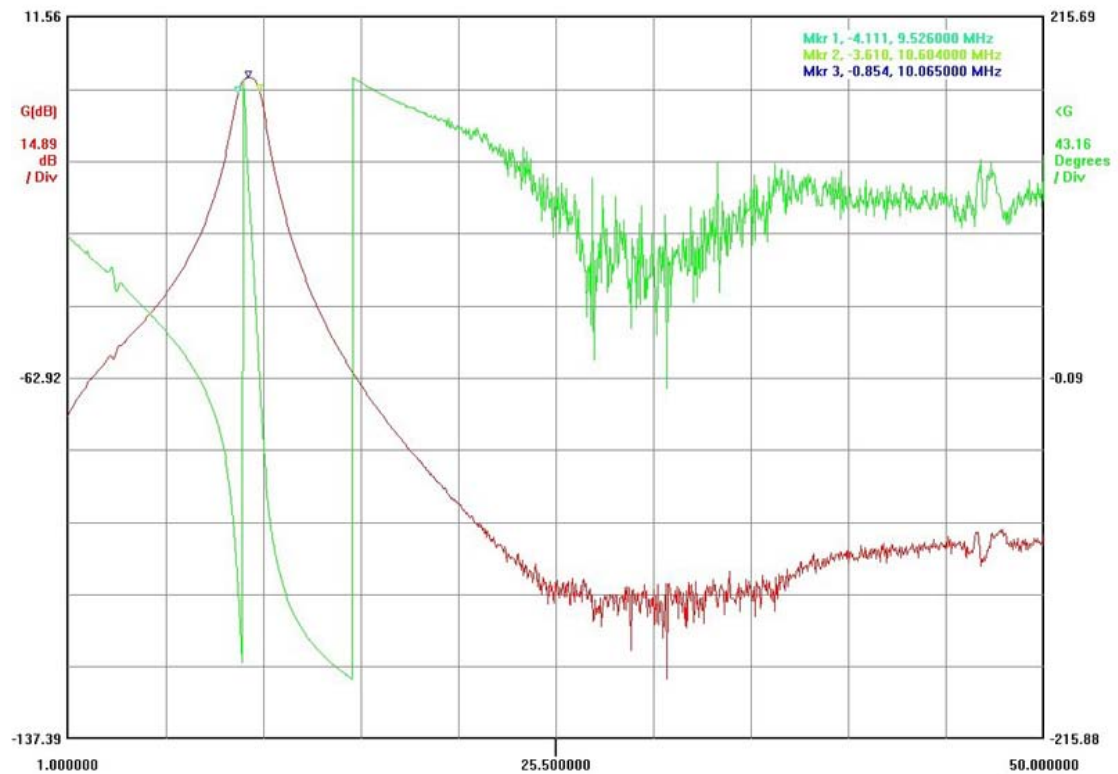
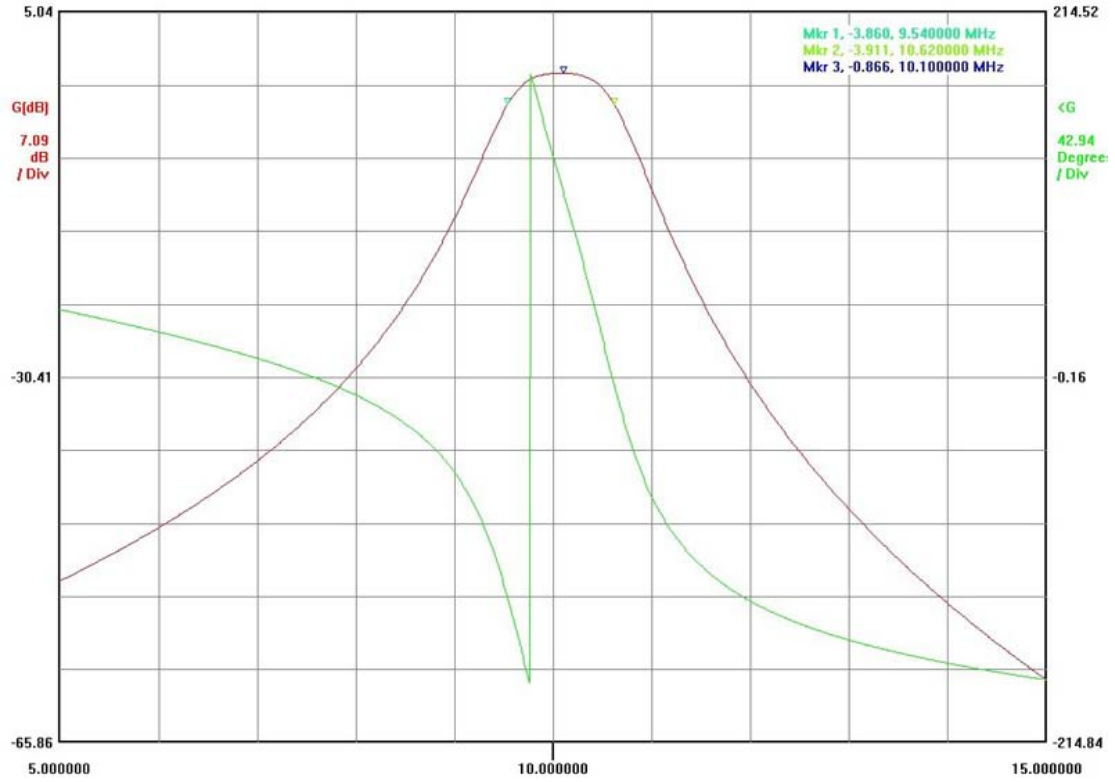
T50-6: 32 匝，不是 33 匝

C26, C30: 68pF

C28: 62pF+3pF+0.5pF

C25, C31: 220pF

C27, C29: 330pF+330pF



20 米

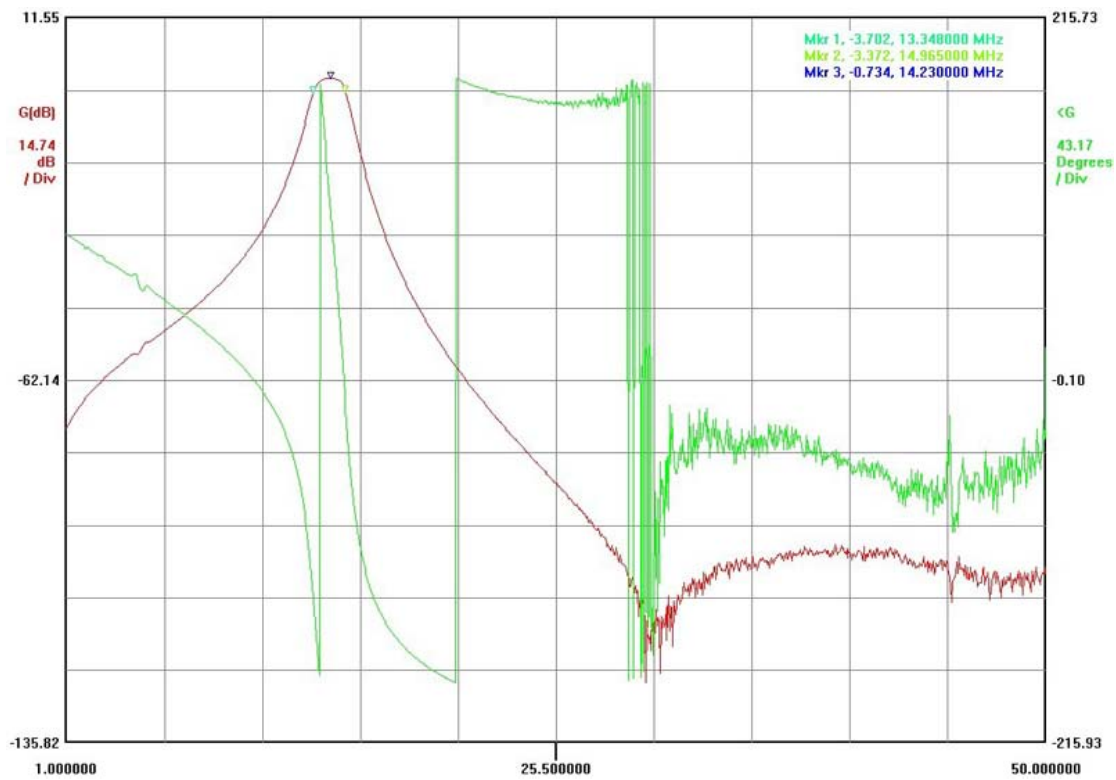
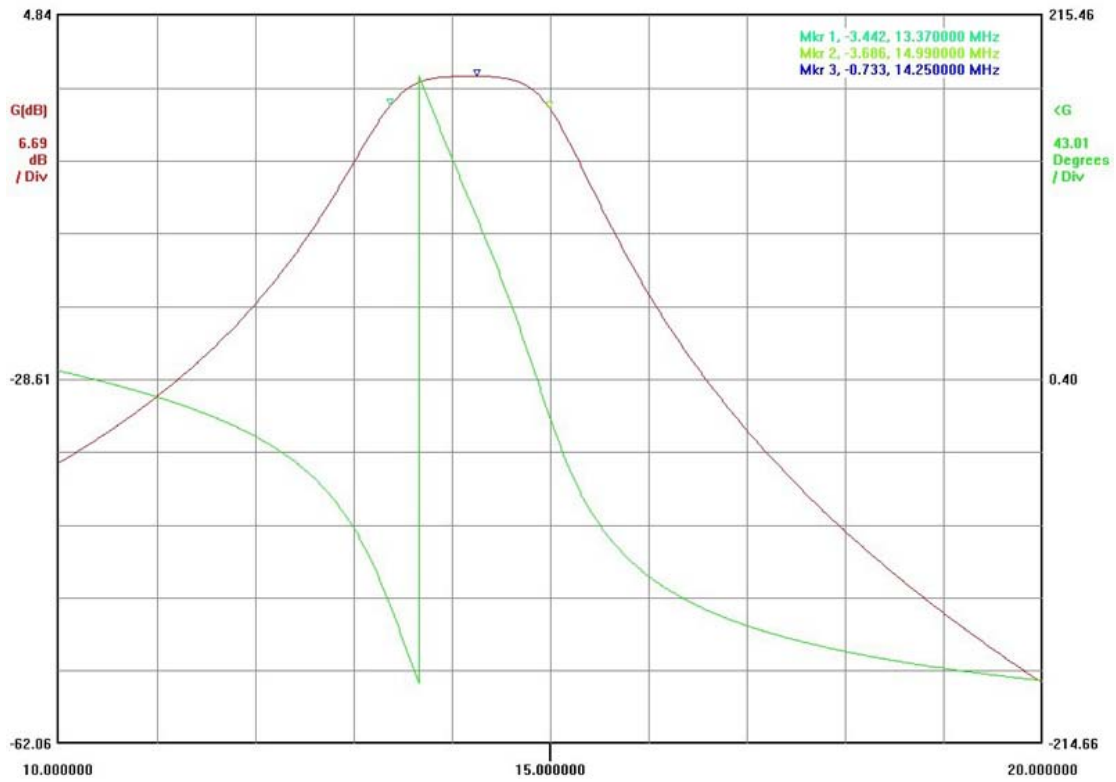
T50-6: 26 匝

C32,C38: 100pF+56pF

C156,C157,C158: 2pF

C33,C35,C37: 47pF

C34,C36: 150pF+150pF+150pF



17 米

T50-6: 24 匝

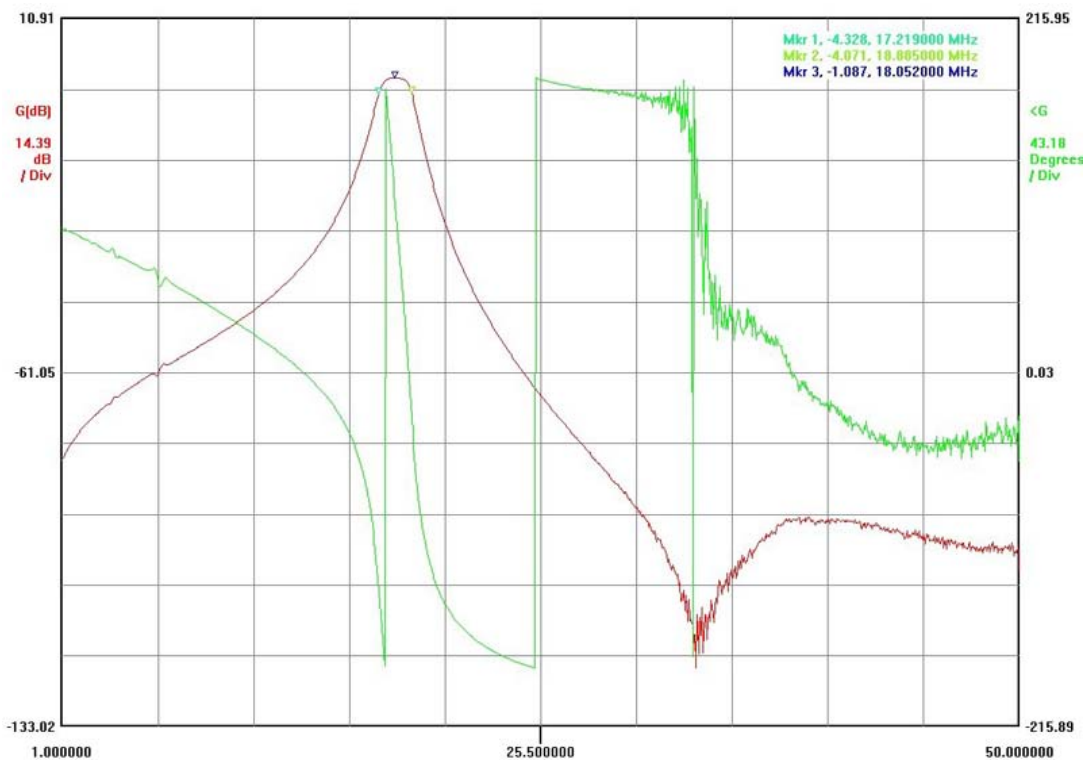
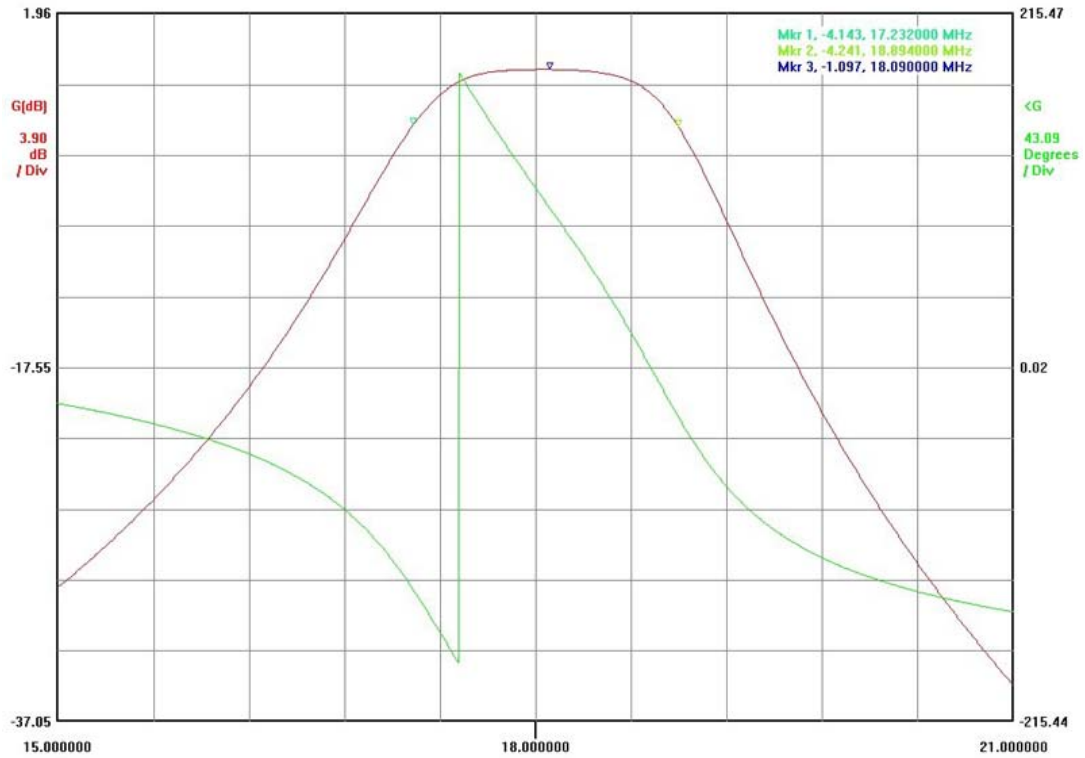
C41,C43: 180pF+180pF

c40,C42,C44: 33pF

C39,C45: 56pF+68pF

C165,C167: 3pF

C166: 3pF+0.5pF



15 米

T50-10: 26 匝

C48A,C50A:200pF

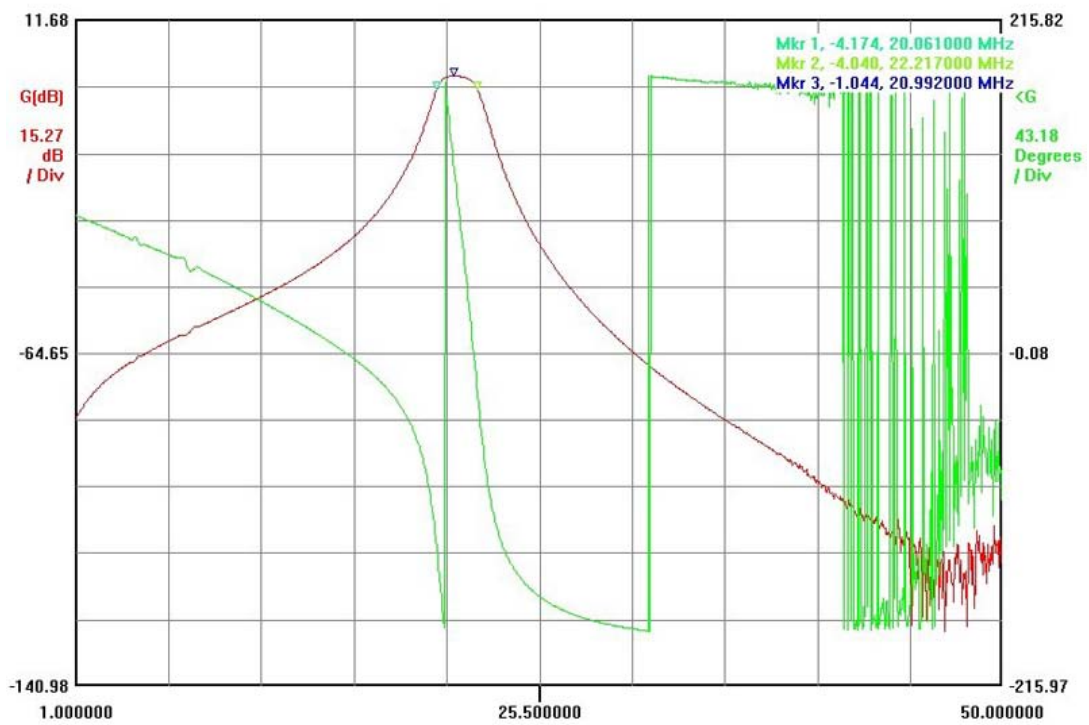
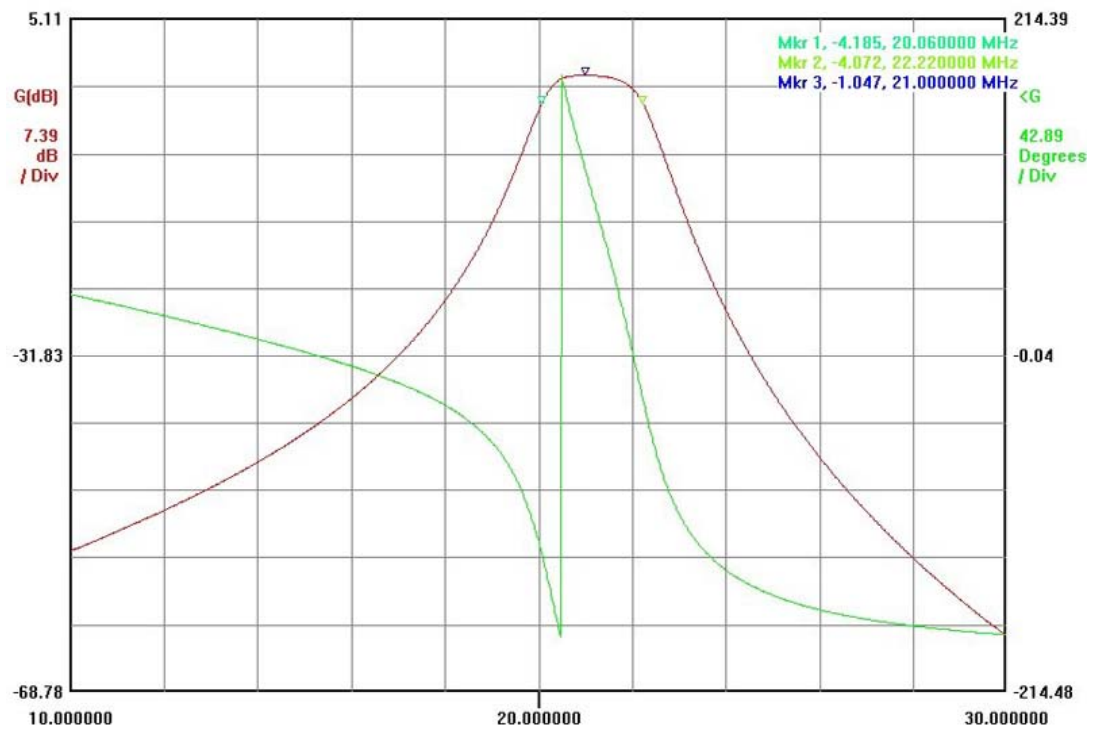
C48B,C50B:100pF

C47,C49,C51:27pF

C159,C160,C161:1pF

C46A,C52A:82pF

C46B,C52B:22pF



12 米

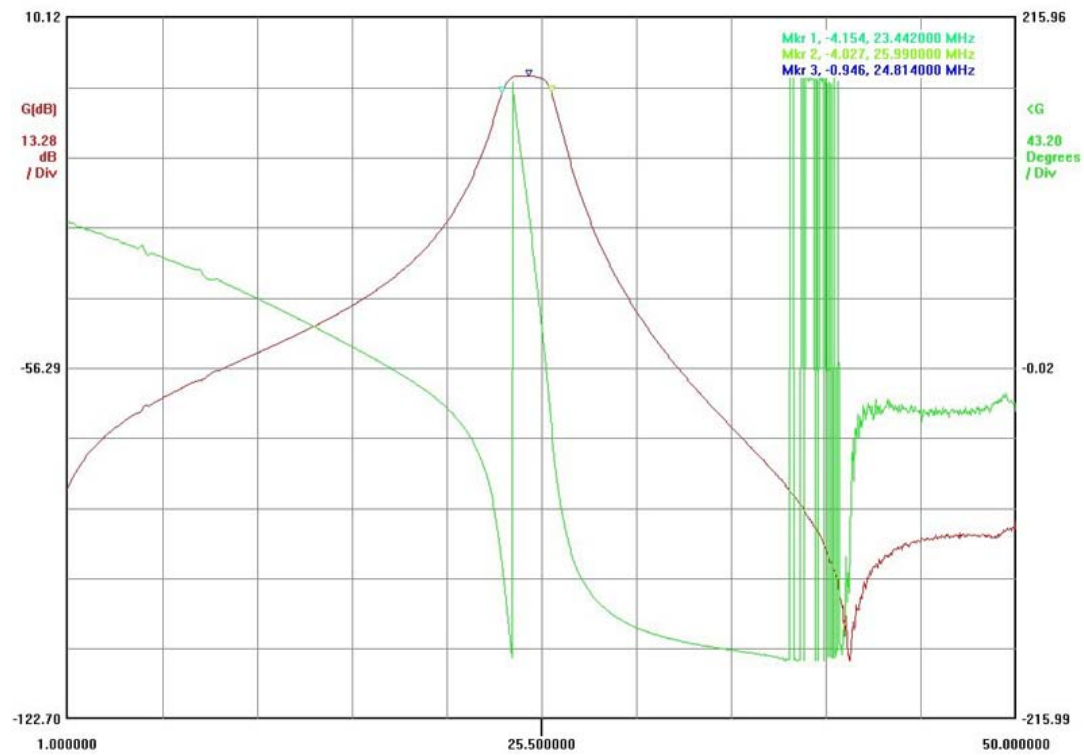
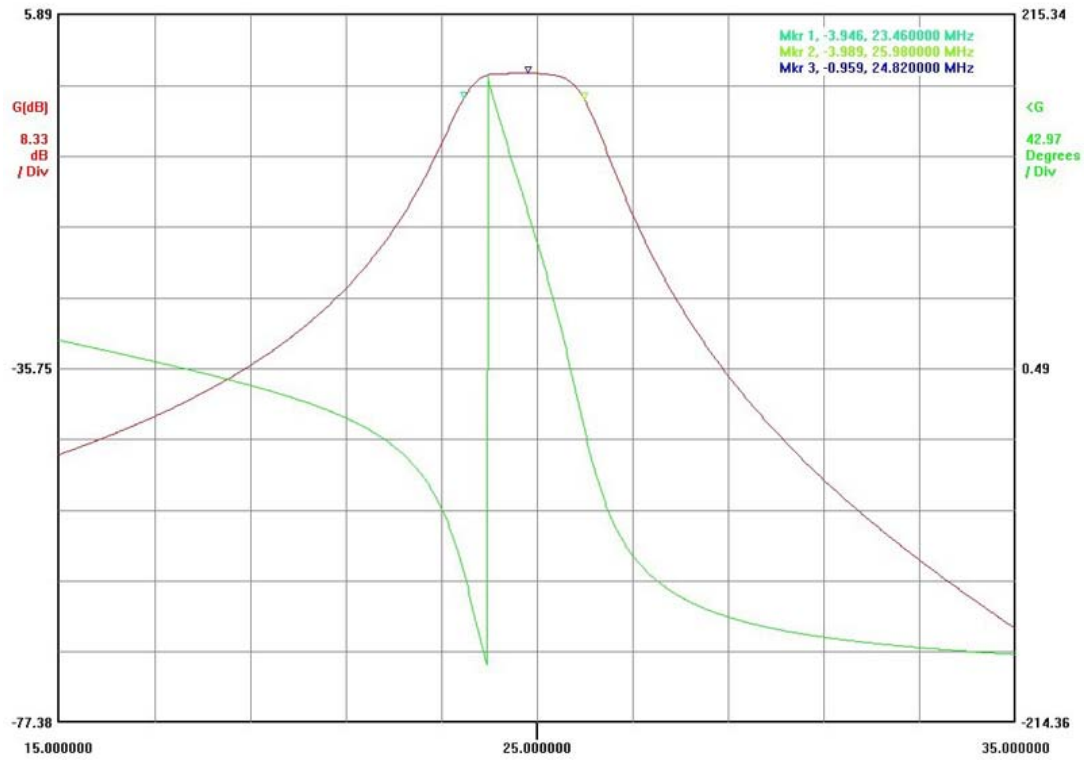
T50-10 22 匝

C57,C55:200pF 并 68pF

C58,C56,C54:27pF

C168,C170:3pF

C169:2pF



10 米

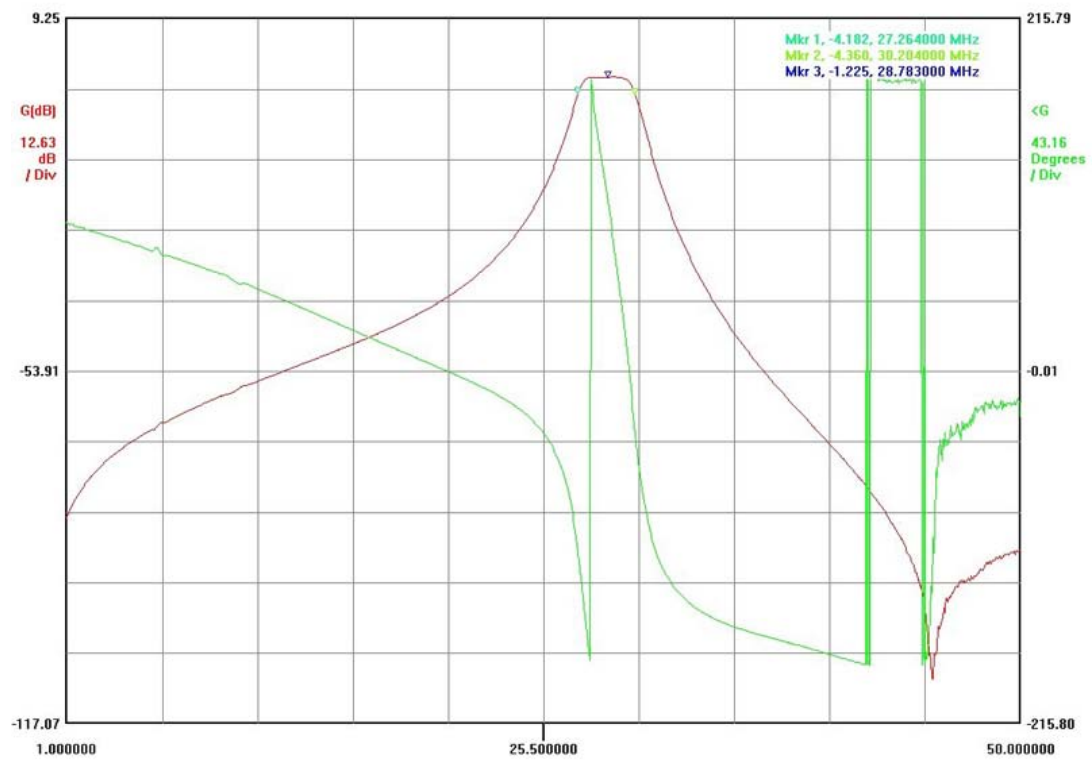
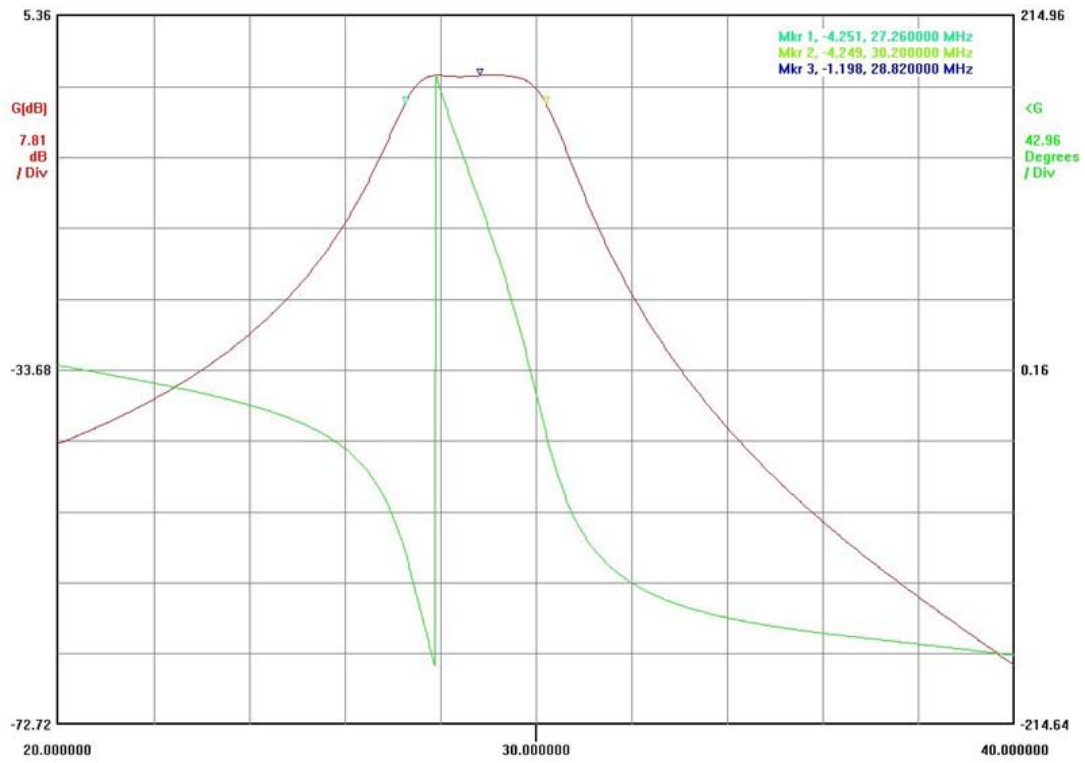
T50-10: 20 匝

C60, C66: 39pF+39pF

C62, C64: 200pF

C61, C63, C65: 22pF

C162, C163, C164: 4pF



小结

1. 焊接 BPF 以前，强烈建议用 N2PK 把电容的 Q 值抽样测试一下(顺便测试一下电容量)，测试花的时间比返工花的时间要少很多。
2. 在绕完电感线圈后，强烈建议用 LC 表测试一下线圈的电感量，一是可以和电路图中的电感量比对一下(当然 LC 表的误差必须比较小才行)，避免匝数不对；二是可以比对一下三个线圈的电感量，避免差异过大。在高频段，因为电感线圈匝数比较少，可以通过调节每匝线圈间距小范围地调节电感量，使三个线圈的电感量基本相同。在低频段，因为电感线圈匝数很多，这样做效果不明显。
3. 高频段 BPF，电感边上有并联谐振电容。当调试时发现通带左侧有峰时，减小中间电感的并联谐振电容，当发现通带右侧有峰时，加大中间电感的并联谐振电容。低频段，电感只有串联谐振电容，这时调整串联谐振电容就可以了，调整方法同上。如果整个通带的中心频率都偏高或偏低，则三个并联谐振电容或串联谐振电容要同时调整。