

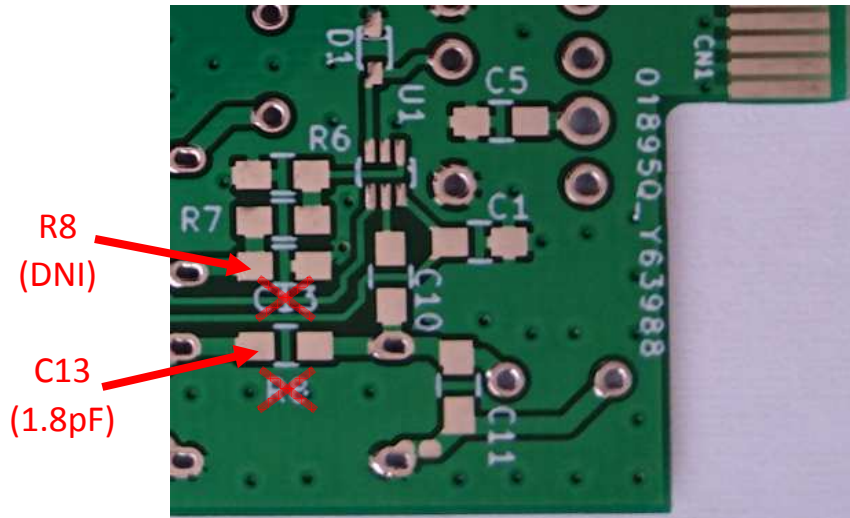
6m Frontend v1.0 PCB Errata

6th May, 2016
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There are two known errata.

1) Wrong Silk

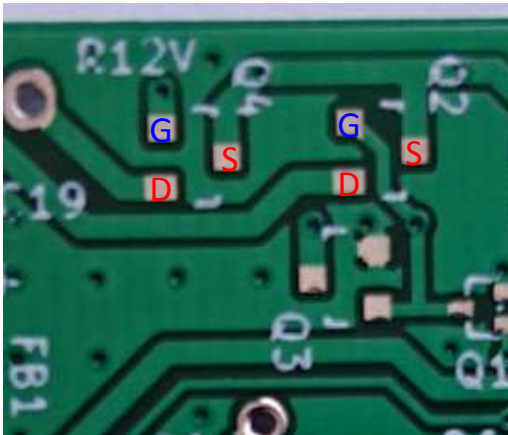
The silks of C13 and R8 are swapped



2) Wrong foot print

Source and Drain of Q2 and Q4 are swapped

PCB



FYI : filter adjustment

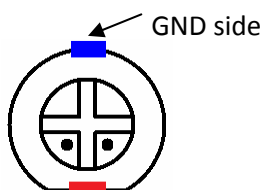
Diplexer and BPF should be adjusted individually.

Also, the parallel resonant circuit of Diplexer should be adjusted individually.

Step1) Diplexer Parallel resonant circuit

install L2, C6, C7, C8, R5

Attention! Trimmer direction
to avoid body effect



adjustment :

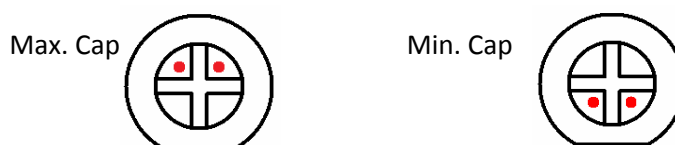
I used Antenna Analyzer. (SA with TG, Network Analyzer or Grid dip meter for toroid are useable)

Antenna Analyzer is connected to R1 (L1 side) and GND.

Adjust C8 so that the VSWR is the worst at 50.300MHz

If the position of trimmer become maximum or minimum, adjust C6 and C7 value.

The error of L1 inductance might be large because the inductance is small.



Step2) Diplexer total adjustment

install L1, C9

adjustment :

I used Antenna Analyzer as signal generator and Scope.

Antenna Analyzer is connected to R1 (L1 side) and GND. And Generate signal at 50.300MHz.

Scope is connected to C9 (R7 side) and GND.

Adjust C9 so that the amplitude is maximized on the Scope.

After that, check Diplexer characteristics using Network Analyzer.

If necessary, do fine tuning.

Step3) BPF adjustment

Install L3, L5, C10, C11, C12, C13, C14, C15, C16

Attention! Trimmer direction (same as Step1)

adjustment :

same as Step2.

Antenna Analyzer is connected to C10 (PE4259 side) and GND. And Generate signal at 50.300MHz.

Scope is connected to C16 (PE4259 side) and GND.

Adjust C12 and C15 so that the amplitude is maximized on the Scope.

After that, check BPF characteristics using Network Analyzer.

If necessary, do fine tuning.

