

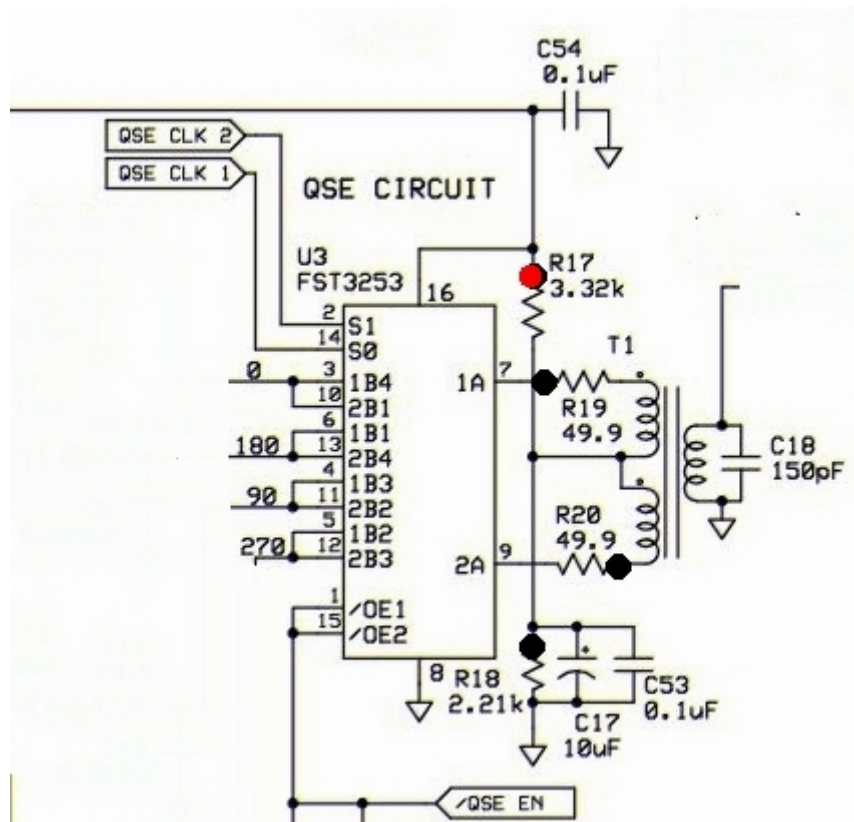
Softrock RXTX V6.2 - 40/30m - TX Mixer

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Introduction

This stage adds the TX Mixer to the board and provides the modulation of the Dividers' output signals by the 4 I and Q signals from the OpAmps. The result is a double sideband RF waveform that will be coupled into the PA stage.

Schematic

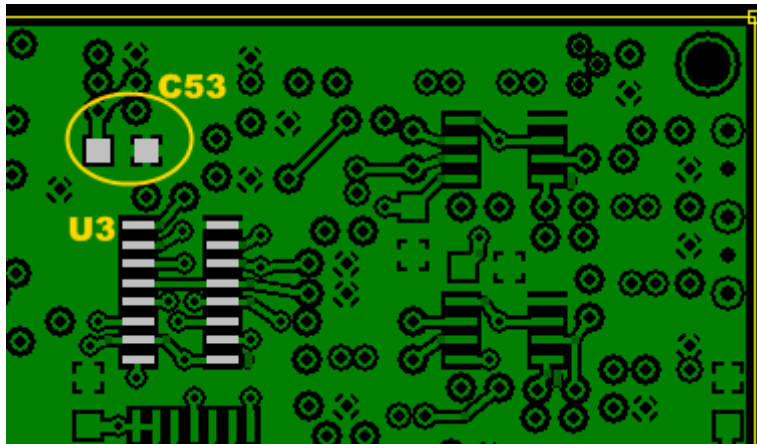
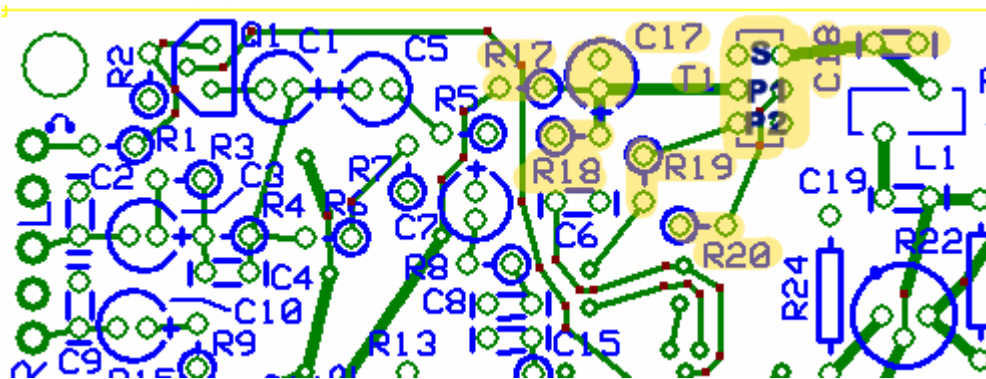


Bill of Materials

Designation	Value	Orientation
C17	10uF/16 VDC Electrolytic	South-North

C18	150pF, ceramic, 5%	n/a
C53	0.1uF, smt 1206	smt
R17	3.32 K, 1/4W, 1%	East-West
R18	2.21 K, 1/4W, 1%	West-East
R19	49.9, 1/4W, 1%	North-South
R20	49.9, 1/4W, 1%	West-East
T01	T30-6 (yellow) (#30) (2.1 uH)	24T/2x11T
U03	FST3253 or SN74CBT3253D	SOIC 16

Build Notes

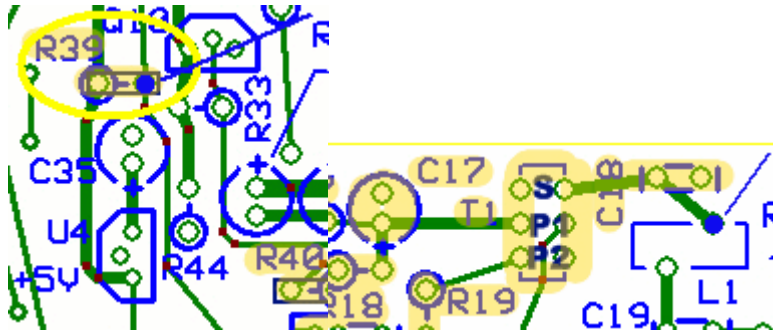


Testing

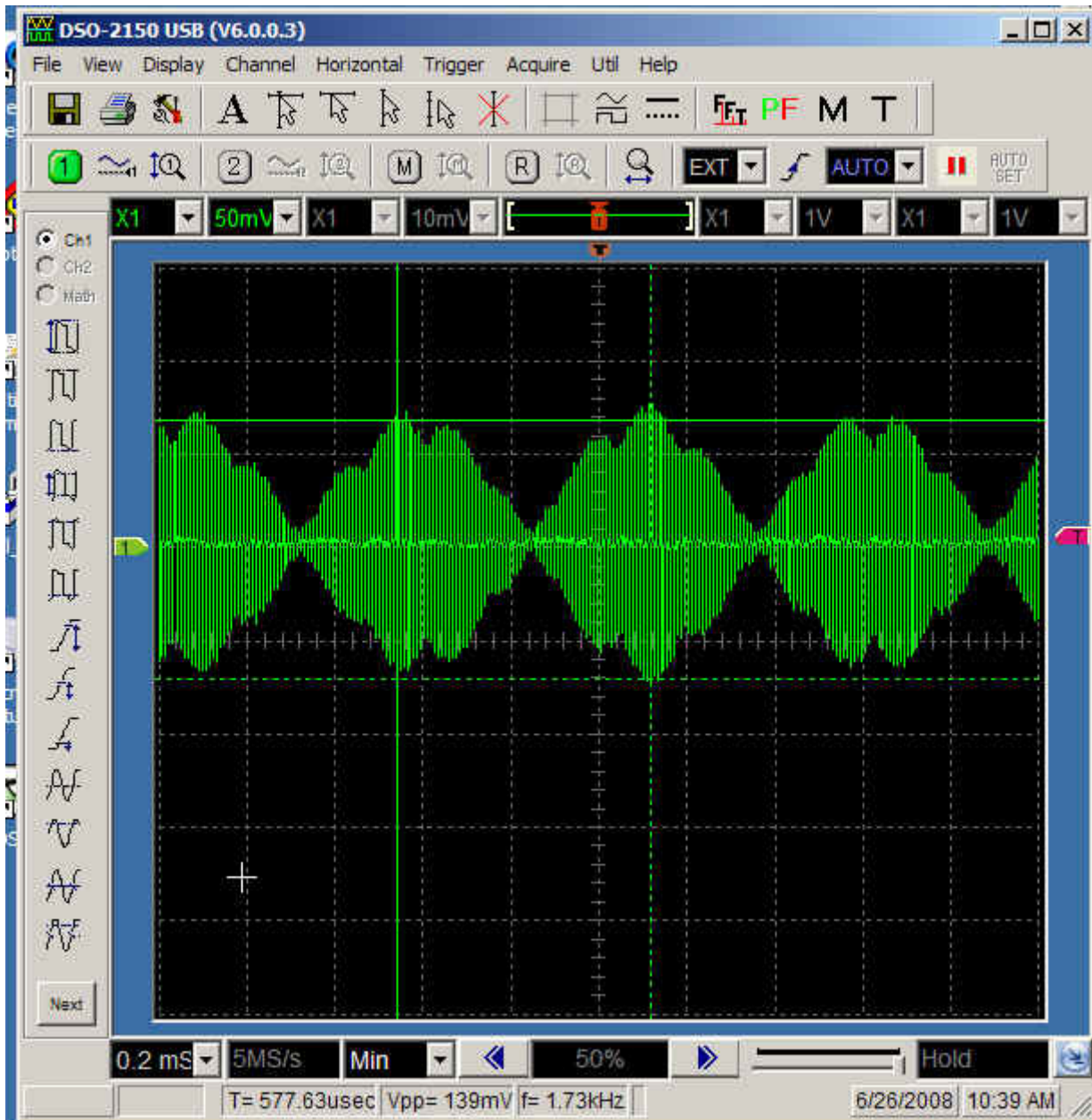
Current Draw

- With limiting resistor:
- Without limiting resistor, you should get ~38.5 mA

Mixer Output



- Enable the chip. Connect the R39 hairpin hole to ground. **Take care to get the correct hole (the right-hand, hairpin hole)**
- Inject 16kHz audio signal into line in Left (or right). (Can use Rocky or IQGen to provide signals out of the computer's sound card)
- Connect scope probe to the top right pad of L1
- The trace should show a clean double sideband signal.
- Try the same for the other line out feed.



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