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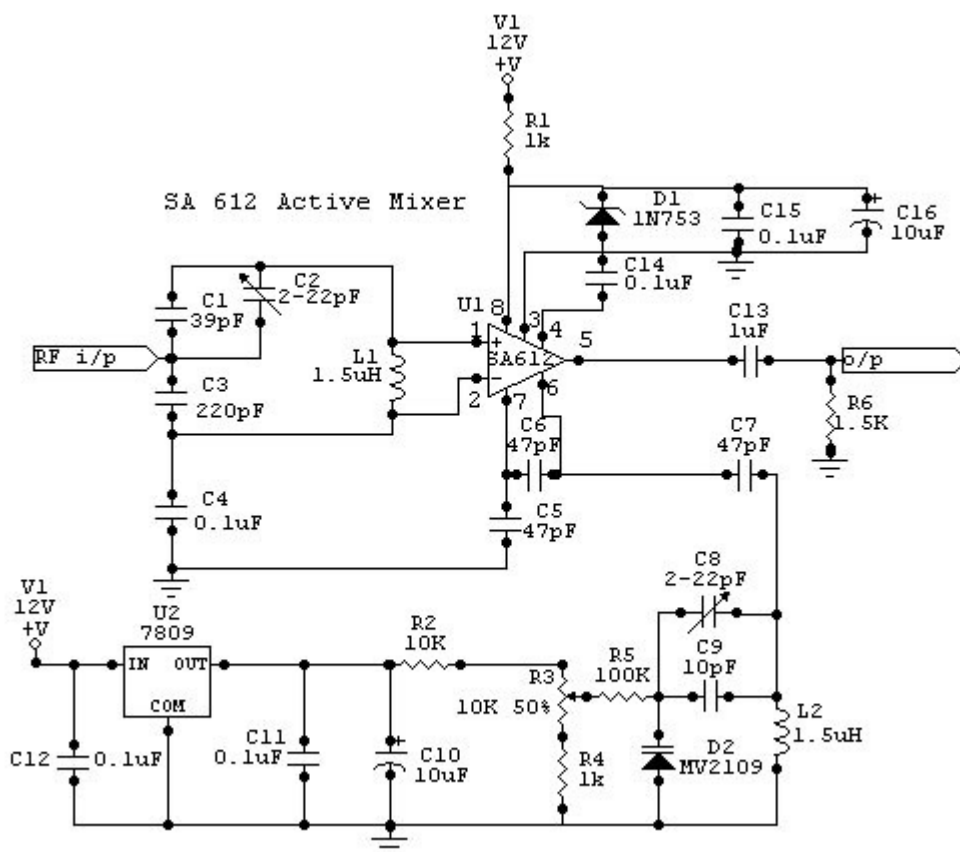
Receiver for Jupiter

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RF Amp	Narrow Band Pass Filter	Mixer	Low Pass Filter	Audio Preamp	Audio Power Amp
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Mixer

The Mixer used in this receiver is Philips SA612. The SA612A is a low-power VHF monolithic double-balanced mixer with on-board oscillator and voltage regulator. Since LO is internally generated no need of external LO. For Guru receiver the LO is tuned to 20.1MHz so that mixer can downconvert the signals to audio frequency range. The LO tuning is done by varying the capacitance of the varactor diode by varying the dc bias across it. The varactor diode mentioned in Jove Receiver manual is MV209; if it is not available one can use MV2109; BB209 and other FM range varactor diodes can be used by proper adjusting the capacitance with use of additional capacitors.



Mixer Pin Voltages: -

Pin 1	1.4
Pin 2	1.4
Pin 3	0
Pin 4	5.12
Pin 5	5.05
Pin 6	6.2
Pin 7	5.79
Pin 8	6.27

[Reflection Characteristics of Mixer i/p Port](#)

[Receiver Considerations for Jupiter](#)

[Block Diagram of Receiver](#)

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