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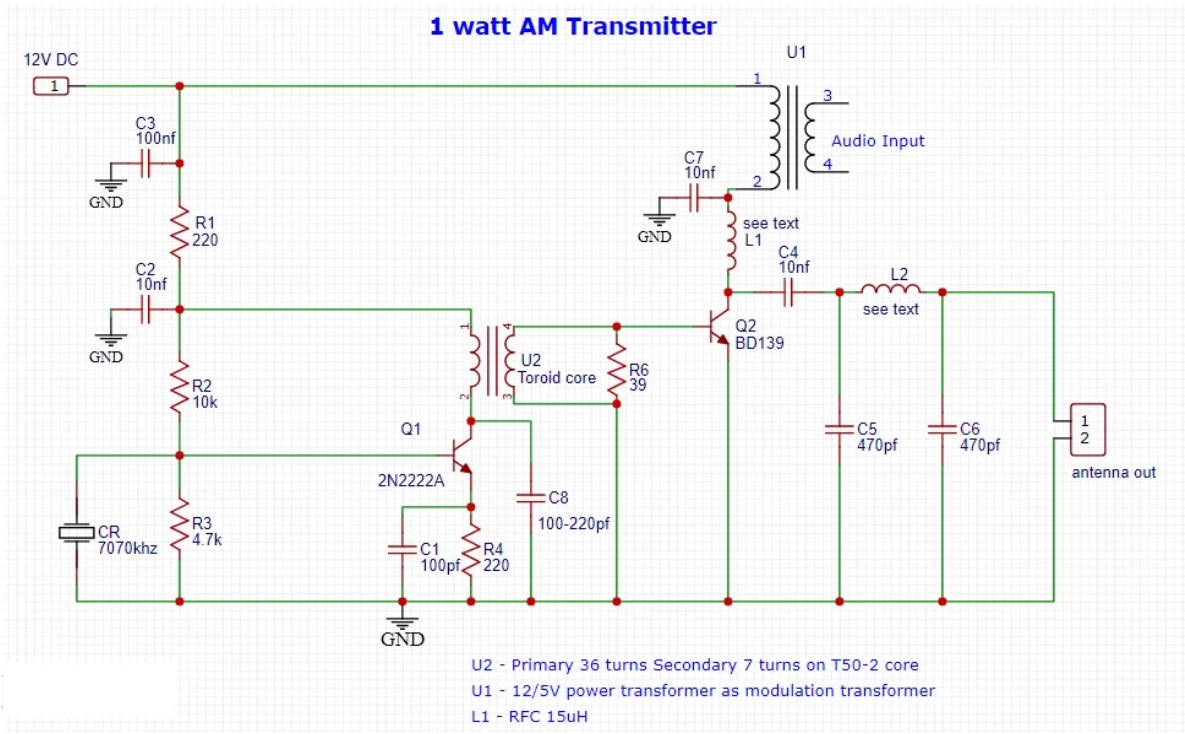
Simple two stage transistor one watt AM transmitter

admin

2–3 minutes



One watt AM transmitter

This is a simple two stage transistor ‘one watt AM transmitter’ for the HF band which gives around 1 watt in output. You can use easily available transistors like BD139, SL100, 2N3866, 2N2219 or a 2N3553 in the final stage. The output with transistor 2N3553 is approx. 1.8 watt @ 12 Volt. The transmitter seems to give more output when you use 7 turns

instead of 4 turns in the secondary section of L1 (the coil between oscillator and final stage). Try with different power transformers to modulate the transmitter in Amplitude Modulation. You have to do experiments to find a suitable modulation transformer to produce a good AM Modulation. Audio output and input transformers used in old radio receivers are suitable for modulation transformer. One amp or half amp rating power transformers are also suitable for modulation transformer.

Also test with different transistors in the final stage. But be careful to not blow up the final transistor
BD139 – gives 1.2 watt output @ 12 volt
C2314 – gives 2 watt output @ 12 volt
BLY88C – gives 2.3 watt output @ 12 volt, 2N2219 – gives 1.3 watt output @ 12 volt, SL100 – gives 1.1 watt output @ 12 volt

Make sure to use a power supply that can provide enough current for the transistor you are using.

Here are some additional tips for building and using this transmitter:

- Use a good quality antenna that is matched to the frequency you are transmitting on.
- Ground the transmitter chassis to a good ground.
- Keep the transmitter away from other electronic devices to avoid interference.
- Be careful not to overmodulate the transmitter, as this can cause distortion.

Please note that it is important to check the laws in your

country before building or using this transmitter. In some countries, it is illegal to transmit on the shortwave band without a license.

Related circuits

Simple series modulated AM QRP HF Transmitter

OXO QRP HF Transmitter