

Comms Noise Squelch IC

By G8MNY

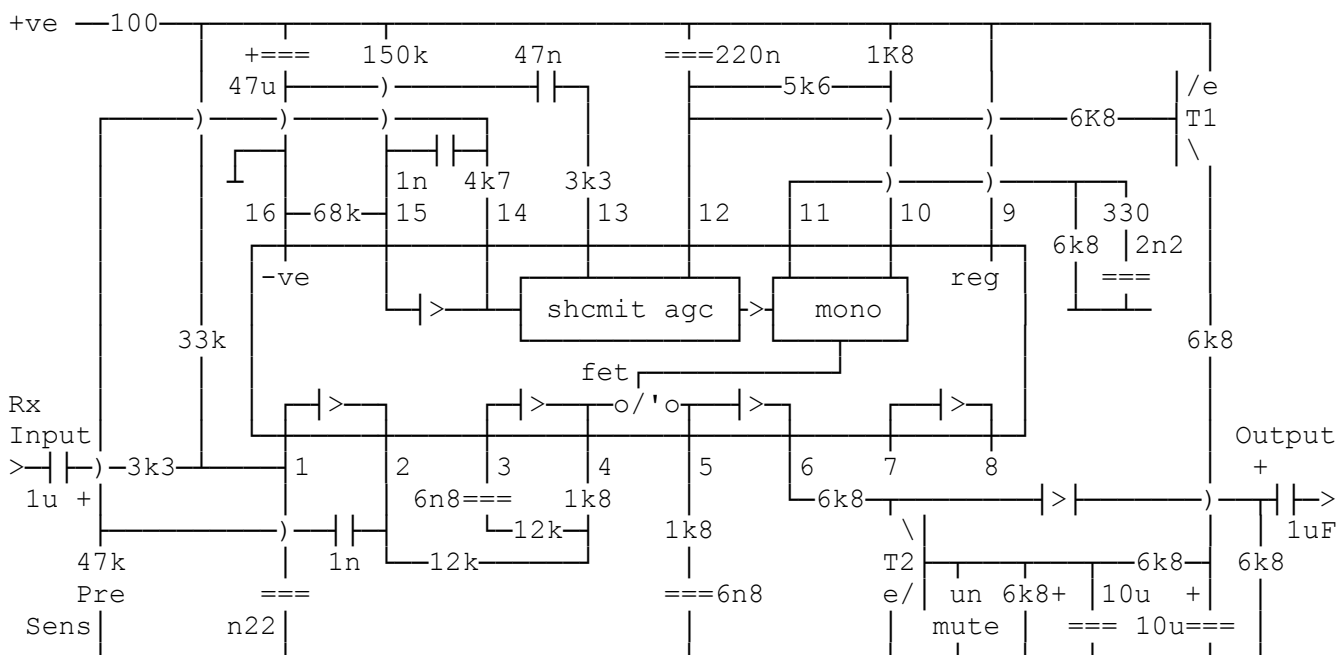
(Correction Nov 09)

(8 Bit ASCII graphics use code page 437 or 850, Terminal Font)

This is an old circuit that was published in Sept 1982 Electronic's World By LJ Forrest.

I have used a HiFi version on the HiFi sound channel on 23cms ATV repeater GB3HV in an attempt to remove radar zips, as well as providing a squelch.

It uses an KB4432, KB4436 or TDA1001(A) IC, that has 5 NPN emitter follower buffers, an FET switch, a Schmitt Trigger, a monostable & a regulator. So it is possible to make up the circuit with discreet components if you can't source this old IC.



HOW IT WORKS

The input signal is fed via a RF filter to biased up the emitter follower amp on Pin 1. Pin 2 output feeds two paths 1/ the audio path, where it goes to a low pass Butterworth filter Pin 3 & 4 amp, & 2/ the noise path, where it feeds an adjustable high pass Butterworth filter on Pin 15 & 16 amp. The noise amp feeds the Schmitt trigger with a level following AGC. With no noise the monostable is not triggered. The un triggered mono stable operates the FET hold level switch that lets the audio pass to the storage CR & to the last buffer amp Pin 5 & 6.

With impulsive noise present, the high frequency content will operate the Schmitt & triggers the short time mono, which turns off the FET path for a few mS. During this time, the mean level stored on CR is used to hold the AF level during the break into the last buffer.

With constant noise the Schmitt trigger output also drives PNP T1 that after a fraction of a second charges up the squelch time constants to operate NPN T2 that mutes the output.

See my Tech bul "Simple Carrier Squelch"

Why don't U sent an interesting Bul?

73 De John, G8MNY @ GB7CIP