AF Noise Generator

By G8MNY  (New Nov 07)
(8 Bit ASCII graphics use code page 437 or 850)
This is a audio noise generator that can make:-

**WHITE NOISE** that has constant energy per Hz.

**PINK NOISE** that has constant energy per octave, with a series of CRs to give a 3dB per octave filter.

**RED NOISE** that has reducing noise per octave, with a single CR for 6dB per octave filter.

**SCHEME**

![Diagram of the noise generator scheme]

**PR NOISE GENERATOR**

After a count of #34113 the PR noise code repeats.
AF FILTERS

SPECTRUMS

Level  Constant Analyser Bandwidth
+0dB  ------------------------- White Noise
-3dB  \
-6dB  \
-9dB  \
-12dB  \
-15dB  \
-18dB  \
-21dB  \
-24dB  \
-27dB  \
-30dB  \

+0dB  "-"  Constant Analyser Bandwidth  Noise
-3dB  "-"  Pink Noise  -3dB/O
-6dB  "-"  Red Noise  -3dB/O
-9dB  "-"  Noise  -3dB/O
-12dB  "-"  Pink Noise  -3dB/O
-15dB  "-"  Red Noise  -3dB/O
-18dB  "-"  Noise  -3dB/O
-21dB  "-"  Pink Noise  -3dB/O
-24dB  "-"  Red Noise  -3dB/O
-27dB  "-"  Noise  -3dB/O
-30dB  "-"  Log Scale

G4APL  GB7CIP  1.1.2008
With constant Q filters in an AF spectrum analyser display the pink noise gives a flat response.

With Magnetic systems like tape, magnetic cutting heads, etc. Red noise will produce a flat spectrum, with constant bandwidth analyser.

SOUND COLOURATION
With good hearing it is possible to judge AF response of system especially when comparing using just these noises.

The White noise lets you predominately hear the top end, as the ear is like a constant Q analyser. The Pink noise lets you judge the whole range, while the Red noise lets you more easily concentrate on the bass resonances.

Used with a good graphic equaliser, mainly of the system colourations (LS + room etc.) can be mostly ironed out.

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP