SoMono Chebyshev

SoMono Chebyshev is a distortion plug-in based on the Chebyshev polynomial $T_n(x)$ which is defined here as $T_n(x) = cos(n \times arccos(x))$. x in this case is an input sample whos' value ranges from -1 to 1 and n is a free parameter that you can choose with a parameter slider. Only odd integer values are allowed for n because even values result in a nasty DC bias due to the fact that if $x = 0$ then $T_n(x) \in \{-1, 1\}$ when n is an even integer. Chebyshev results in a warm harmonic distortion when applied to clean sounds (such as guitar or the TB-303). You can adjust the input gain thus also adjusting the strength of distortion and output gain to prevent clipping.

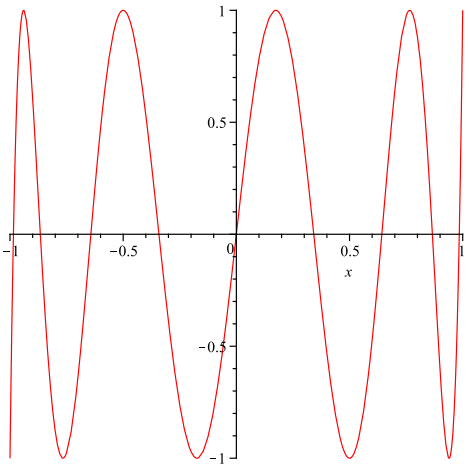

Figure 1 $T_9(x)graph$

Parameter	Min	Max	Units	Meaning
Pre-Gain	-6	+6	dB	Allows you to adjust the volume a bit before feeding the signal to the distortion unit.
n	1	33	Integer	This is the free parameter for the Chebyshev polynomial (only odd integers).
Post-Gain	-6	+6	dB	Allows you to adjust the volume a bit after it comes out from the distortion unit.

Table 1 Parameters