

BW Broadcast PLL+ 1W Exciter



The broadcast warehouse BWPLL+ is a compact fm broadcast exciter with specifications that put many commercial exciters to shame. The modern innovative design allows audio and RF performance never before seen in kit or module exciters.

The 'virtual VFO' dual loop system allows audio flatness to 1 Hz. Afc bounce and modulator overshoot are a thing of the past. You now can pass that low bass without distortion and get that perfect stereo separation that you have been demanding from your exciter. Broadband no tune operation allows for ease of use. The only adjustment required is of the direct reading decimal dial switches for frequency selection. Rf power is muted during out of lock conditions and the built in harmonic filter keeps your signal clean.

The expansion connector allows for external modules to be connected to the board such as the broadcast warehouse BWPLL+ LCD.

The optional LCD expansion board provides frequency readout and the option of front panel frequency control with its PCB up / down switches.

" At this writing, the state-of-the-art in analogue modulated oscillator distortion is approximately 0.02% THD at $\pm 75\text{kHz}$ deviation. In our opinion, if the THD of your exciter is less than 0.1%, it is probably adequate. If it is poorer than this (as many of the older technology exciters are), replacing your exciter will audibly improve sonic clarity and will also improve the performance of any subcarriers. Even if the distortion of your modulated oscillator is sufficient, the performance of the AFC loop may not be. A high-performance exciter must have a dual time-constant AFC loop to achieve satisfactory low-frequency performance. If the AFC uses a compromise single time-constant, stereo separation and distortion will be compromised at low frequencies. Further, the exciter will probably not accurately reproduce the shape of the carefully peak- controlled OPTIMOD-FM output, introducing spurious peaks and reducing achievable loudness."

an excerpt from maintaining audio quality by Robert Orban, Orban Inc, manufacturers of the Optimod audio processors explaining why an exciter with features like the pll plus is better for your sound

Power Output	1000mW +/- 100mW
Distortion	0.02% typ.
Power Requirements	13.8-15Vdc 300mA max
Harmonic Output	-60dBc(tuned)
Spurious Output	-85dBc(tuned)
Frequency Steps	50kHz steps
Out of Lock RF Powerdown	<-50dBc
Freq. Stability	+/- 200Hz
Audio Input Level	adjustable
Audio Response	1Hz-100kHz
S.N.R.	>80dB