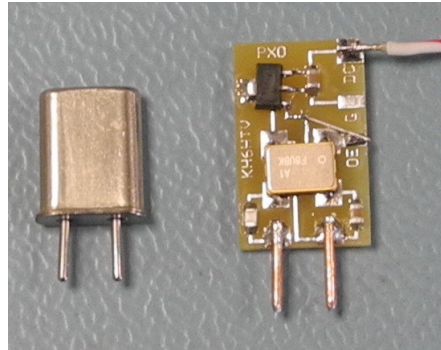




Model PXO-xxx PROGRAMMABLE XTAL OSCILLATOR



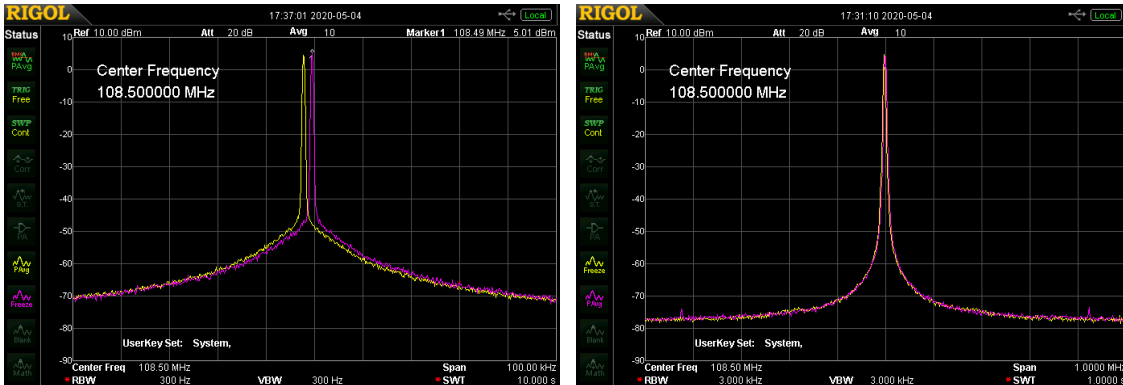
The **NEW** KH6HTV VIDEO Model PXO-xxx is a Programmable Crystal Oscillator. With the demise of International Crystal, it has become very difficult for radio amateurs to obtain replacement crystals for older equipment. To assist in solving this problem, we are offering to supply HC-50/U type oscillators which can often be used in place of the original crystal. We will stock oscillators for the PC Electronics, 70cm, AM-TV transmitters for standard TV frequencies (www.hamtv.com) The price is \$20 each, including 1st class postage. The price for any other frequencies is \$30 each. When ordering, please specify: desired oscillator frequency. The frequency is programmed by the factory. It can not be reprogrammed by the user.

The PXO is a CMOS oscillator running from 3.3V. It includes an on board 3.3Vdc regulator. One of the "xtal" pins, labeled Gnd, goes to ground. The other "xtal" pin, labeled RF, is the ac coupled RF output. Solder a wire to the pad labeled DC. This wire must be attached to a dc power source of +6 to +15Vdc. In the PCE transmitter, the two channel crystal relay provides the ground circuit, thus disabling the power to the unused PXO. For additional details, see Application Note, AN-56a.

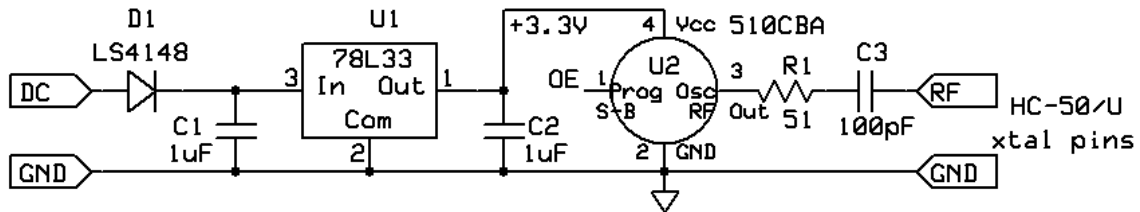
PARAMETER (*)	Value
PXO Device	Silicon Labs, model 510CBA CMOS, 3.3 V
Frequency Range	100 kHz to 212 MHz available. 105-110 MHz stocked, see list p. 2
Frequency Tolerance	± 50 ppm
Temperature Range	-40 to +85 C
Output Voltage	2.3 V, open circuit
Output Power	+7 dBm (into 50 Ω)
DC Current	30 mA
DC Supply Voltage	+6 to +15 V range, internal voltage regulator
Dimensions	similar to HC-50/U crystal package --- 0.5" x 0.8" with 0.25", 0.04" pins

Stock Oscillators are available for the following frequencies for use in PC Electronics, 70cm, TV Transmitters. Note: the PCE transmitter output is a 4 X multiplier of the crystal or PXO frequency.

<u>PXO Frequency</u>	<u>70cm Frequency</u>	<u>TV Channel</u>
105.5125 MHz	421.250 MHz	57
106.5625 MHz	426.250 MHz	
106.8125 MHz	427.250 MHz	58
108.3125 MHz	433.250 MHz	59
108.5000 MHz	434.000 MHz	
109.8125 MHz	439.250 MHz	60



Phase Noise measurement: Comparison of 108.5 MHz, 5th overtone, crystal (yellow trace) and a PXO (magenta trace). Tested in the same oscillator circuit. Left: 10dB/div & 10kHz/div, 300Hz BW Right: 10dB/div & 100kHz/div, 3kHz BW.



PXO-XXX specs. revision 2.0, 23 May 2020

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