This morning I decided to measure a K3 in respect to third-order IMD vs. power supply voltage as read on the K3 metering. The pattern I measured, the higher the voltage, the lower the third-order IMD. At really low voltages, the much higher odd-order products degrade significantly. Test was on 20 meters, at a nominal 100 watts as per the K3 power setting. Two equal tones were generated within the K3. Note: at 14.8 volts on TX, the voltage on RX was 15.1 volts. At 13.8 volts on TX, the voltage on RX was 14.0. The power supply was an Astron VS-35M, and the length of PowerPole cable was 16 inches.

Voltage	IMD in dBc	Note: Add 6 dB for PEP method
11.5	-14.1 dBc	
12.0	-16.9 dBc	
12.5	-17.9 dBc	
13.0	-19.0 dBc	
13.4	-20.0 dBc	
13.8	-21.1 dBc	
14.2	-22.4 dBc	
14.6	-23.7 dBc	
14.8	-24.0 dBc	

Here is some more data all taken at 13.8 volts in transmit mode as read by the K3 LCD.

This K3 has a Rev C PA.

Wattage	3rd order IMD
100 watts	-21.1 dBc
75 watts	-27.8 dBc
50 watts	-33.7 dBc
35 watts	-36.7 dBc
12 watts	-23.4 dBc
10 watts	-29.2 dBc

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