Elecraft KX3 Schematics

March, 2013

This document contains the schematics for the Elecraft KX3 transceiver and its internal options. The schematics are preceded by a block diagram for context.

The schematics are ordered as the basic KX3, then various options.

KX3 Block Diagram
KX3 RF Board
KX3 Control Panel
KXPD3 Paddle
KXAT3 ATU
KXFL3 Roofing Filter
KXBC3 Battery Charger and Real Time Clock
L.O. output is at the operating frequency.

There is no "IF" frequency, the receiver and transmitter are direct conversion on 160m – 6m.

All modulation and demodulation are performed by the DSP.

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2 meter ANTENNA

160 m to 6 m ANTENNA

RF BOARD

KX3 Overall Architecture

W Burdick/L Johnson/R Heineck/R Friess
Rev: 29 March 2012
Place one but NOT both resistors.

Hi = 294 MHz default Clk.
LO = 147 MHz default Clk.

NOTE: nRST=0 then 1, BOOTSPI=1: SPI MASTER BOOT from Flash
nRST=0, BOOTSPI=0: Load SPI Flash from MCU
3-4V in, 1.2V out, 70%, 1.0A

Normally shunted.
Use to monitor DSP core current.

11.2K = 1.3V
10.0K = 1.2V
8.25K = 1.1V

DSP requires +1.2 and +3.3 only.