

W0EB/W2CTX uBITX– programmer's reference guide.

Copyright © W0EB/W2CTX, Aug 24, 2018

This document may be freely distributed as long as nothing is changed and full credit is given to the authors, Jim Sheldon,W0EB and Ron Pfeiffer,W2CTX

In order for PC control of the Micro BITX (uBITX) to work properly, the device controlling the uBITX must have the serial port parameters set to one of the following baud rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600 or 115200 baud, N-8-1 (no handshake, 8 data bits and 1 stop bit). The N-8-1 is implied for all baud rates. Of course the uBITX must be set to the same parameters.

This command list is provided so that anyone wishing to write external control software compatible with our versions of software for the uBITX will have an understanding of what we used and how the commands operate. All commands must terminate with a semi-colon or they will not take effect. All frequency numbers must be exactly 11 digits long (after the command and before the semi-colon. All non used frequency digits must be zeros).

Kenwood™ TS-590S compatible CAT commands are used for convenience to allow use with logging and other programs that use the Kenwood™ command set. You may need to download Kenwood's PC reference manual for their full definitions and usage.

Kenwood command sub set used with the uBITX:

FA; Frequency, VFO A (Example, FA00007025000; sets 07025.00)
FB; Frequency, VFO B (same as above except VFO B)
FR; Select VFO (FR0; selects VFO A, FR1; selects VFO B)
FT; Like FR; excepts selects VFO in SPLIT
KS; Sets Keyer speed, 0-50. (KS25; sets keyer to 25WPM)
MD; Sets the mode. 1-LSB, 2-USB, 3-CW (only these 3 are used here)
RT; Turns RIT on and off (RT0; - Rit OFF, RT1; - RIT ON)
RX; Returns to receive (from TX)
TX0; Switches to Transmit
VV; Make VFO B frequency equal to VFO A

uBITX unique CAT Commands:

uBD; - Band Down
uBU; - Band Up
uBXx; - Band x=0 - 7 determines banduCV;
- Return current active vfo

uERxxxx; - Return EEPROM location
uERxxxxxyyyy; - Returned EEPROM location
uESxxxxxyyyy; - Set EEPROM location xxxx to yyyy

uFLx; - Lock uBITX x = 0- unlock,
1- Lock=encoder active +
freq incr active

uKIA; - Keyer Iambic A
uKIB; - Keyer Iambic B

uKPN; - Keyer Paddle Normal
uKPR; - Keyer Paddle Reverse

uKS; - Request Keyer Speed
uKSxx; - Set Keyer Speed 5 – 50

uKT; - Request Sidetone
uKTxxx; - Set Sidetone 100 – 990

uLA; - Return vfoA
uLAXXXXXXXXXXX; - Load vfoA
(example uLA00007040000; = 07.040.00)

uLB; - Return vfoB
uLBxxxxxxxxxx; - Load vfoB
(same parameters as uLxxxxxxxxxx;)

uMD; - Return Mode 0=USB, 1=LSB, 2=CW, 3=CW, 4=SWU, 5=SWL
uMDx; - Set Mode x--> 0=USB - 1=LSB – etc.

uME; - S-meter End updates
uMDxx; - Return S-meter data, 0 <= xx <= 50
uMS; - S-meter Start updates

uPBX - PBT 1=on 0=off
uPVxxxx - PBT value -2000 XXXX +2000

uRE; - RIT End
uROxxxxx; - RIT Offset -5000 to + 5000
uRS; - RIT Start

uSA; - Select vfoA
uSB; - Select vfoB

uSE; - SPLIT End
uSS; - SPLIT Start

uSM; - Return S-Meter Value
uSMxx; - where 0 <= xx <= 40

uTE; - Tune end
uTS; - Tune start (TX + sidetone)

uVE; - DC input voltage End updates
uVRxxxx; - Return DC input voltage, volts=(xxxx * 15)/constant
uVS; - DC input voltage Start updates

uXS; - Xmit start (TX ONLY)
uXE; - Xmit end

uBITX TEENSY 3.5/3.6 WITH microSD CAT COMMANDS:

uSTxxxxxxxxxxx; - Set RTC Time where xx.xx = gmtime