



KPC-3XE USB

Applications and Features



The KPC-3XE is engineered for dependable and versatile digital communications in the commercial operating environment. These units reflect many years of Kantronics experience and are built with an eye toward emerging applications. The KPC-3XE can fill a variety of roles, including basic packet, GPS/APRS™, and telemetry.

- 'Keyboard to keyboard' communications
- Digipeater – suitable for remote locations
- Local area node and Network node functions standard "KA" Node and K-Net™
- Remote command access with password control
- Personal Electronic Mailbox, with message forwarding and retrieval. Large capacity mailbox flashes Mail LED for up to 10 call signs
- Send/Receive Files (terminal software dependent)
- Remote control devices
- GPS operation mode allows use with APRS® or other geolocation software (when paired with NMEA-0183 compatible GPS receiver)
- Data storage and retrieval
- EMWIN weather information (requires additional software)
- Base, Mobile, portable, or remote installations
- Broad supply voltage range operation
- Low current requirement.
- Supports 300, 400, 600, 1200 (default) bps (Bell 202 only)
- Digital TX audio drive control -- set from keyboard or by remote control
- Telemetry functions with two A/D inputs, and Remote Control switching with two control line outputs
- AX.25, FX25, Packet, BBS, KISS, XKISS, HOST, TERMINAL, GPS, MODEM (and dumb modem) LSUB, TUP, POLL, operating modes
- "Online" HELP feature
- 1M SRAM memory standard
- Includes coaxial power plug and USB cable
- **Made in the USA** -- Limited one-year warranty to original purchaser

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KPC-3XE SPECIFICATIONS



With USB Computer Port

With RS232 Computer Port

Dimensions (H×W×D)	0.8"×5.2"×5.2" (21 mm × 133 mm × 133 mm) without projections
Weight	11 oz (0.32 kg) (approx.)
Power Requirements	5 V dc to 25 V dc, < 30 mA (LEDs on, unit active)
Power Connector Requirements	Coaxial, center pin positive 5mm OD, 2.1mm ID
Power Requirements Internal	Alternate power input through Radio Port
External Signal Ports	DB-9 female (radio)
	USB type B (Computer)
PTT Watchdog Timer	2.5 minutes (approx)
External Carrier Detect	Pulldown to ground
Analog Measurement Inputs (A/D Converter)	Two inputs; 0 V to +3.3 V, 12-bit accuracy, ZIN= 20 kΩ
PTT Output	Open drain, max +50 V dc, 200 mA max
LED Indicators	Power, Xmit, Rcv, Connected, Status, Mail
Remote Control Access	External Reset
Operating Protocols	AX.25 Levels 1 and 2 (user-selectable), FX.25, GPS, HOST, KISS (software defined), XKISS, LINESUB, MODEM, NET,
	POLL, TUP
Compliance	FCC Class B; Europe CE - Conformity

Radio Port

Data Rate	1200 bps (default); 300, 400, 600
Modulation	1200 bps AFSK half duplex (default) Bell-202 1200Hz/2200Hz (only)
Audio Output Level	Continuously adjustable from 1 mV p-p to 2 V p-p
Output Impedance	600 Ω , AC coupled
Audio Input Sensitivity	5 mV p-p
Input Dynamic Range	> 70 dB
Input Impedance	Unbalanced, 10 k Ω (600 Ω with jumper installed)
Max Audio Input Voltage	± 12 V dc; 35 V p-p sinusoidal
Equalization	None or Fixed

Some of the options under the INTERFACE command, while still available, may be limited or non-useable, depending on the computer software used. The options for GPS, KISS, XKISS, MODEM, and NET may not be useable, or may have limited functionality.

The ability of being able to use KISS mode with the KPC-3XE USB, solely depends on the computer software you use, and ITS ability to communicate through the virtual serial port that your computers operating system configures when it sees the USB connection to the KPC.

SO, if your operating system recognizes the KPC-3XE USB version, AND assigns a com port number for programs to use to communicate, AND your KISS mode software can communicate through that assigned serial port number, there will be no difference in the KPC operation, from the RS232 model.

With the USB version of the KPC-3XE, the only input for GPS (or Weather Station) data, is through PIN 2 on the radio port (Usiing GPSPORT).

Interfacing the KPC-3XE with USB interface into a node stack with other TNCs is not available. Interfacing to a computer running as a network node should work as long as the computer program used can access the virtual serial port assigned to the KPC by the computers operating system.

Option jumpers. Two connect analog inputs from the DB9 jack. Optionally, open those jumpers to disable those inputs.

The computer interface chip inside this KPC-3XE with USB interface is made by FTDI. If your computer operating system does not include a virtual com port driver for this interface chip, you can get one from the FTDI web site <http://www.ftdichip.com/Drivers/VCP.htm>