Packet Communicator

The Kantronics KPC-3+ and the KPC-9612+ are engineered for dependable and versatile digital communications. These units reflect many years of Kantronics experience and are built with an eye toward emerging applications. The KPC-3+ can fill a variety of roles, including basic packet, GPS/APRS[™], and telemetry. The

KPC-9612+ is a multi-port, multi-speed data controller capable of over the air speeds up to 38.4 kbps. In use around the world, Kantronics Packet Communicators set the standard by which others are measured!

KPC-3+/KPC-9612+ FEATURES:

- "NEWUSER" mode provides a quick start for packet newcomers.
- Large capacity internal mailbox and mail forwarding feature.
- GPS operation mode allows use with APRS[™] or other geolocation software.
- NEW Remote Control and telemetry functions with two A/D inputs and two control line outputs.
- HCII Motorola central processor.
- Digital audio drive control, set from keyboard or remote control.
- Low current requirements
- 9-V battery power capability

- Network node functions with standard "KA" Node or optional K-Net [™] firmware.
- Optional K-Net node network firmware retains regular TNC functions.
- BBS, KISS, XKISS, HOST, TERMINAL, GPS, and MODEM operating modes.
- Upgradeable as new firmware is released.
- "Online" HELP feature
- 128 k memory standard; 512 k optional
- Comes with data connector, data wire, coaxial power plug, detailed manual, software

KPC-3+

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Use with base, mobile or hand-held radios.



KF C-7012+

KPC-9612+ ADDITIONAL FEATURES:

- Dual Port 1200/9600 bps operation standard.
- Port I supports 1200 bps

- Port 2 supports 4800, 9600, 19,200, 38,400 bps with DFSK modulation
- Multiple user mailbox flashes Mail lamp for up to 10 call signs





SPECIFICATIONS – KANTRONICS KPC-3+

| Dimensions (HWD) | 0.8" x 5.2" x 5.2" or 21 mm x 133 mm x 133 mm (w/o projections) |
|-------------------------|---|
| Weight | 11 oz or 0.32 kg |
| Power Requirements | 6 V dc ~ 25 V dc, less than 30 mA (LEDs on, unit active) 6V dc ~ 25 V dc, less than 15 mA (LEDs off, unit inactive) |
| Plug | Coaxial, center pin positive 2.1 mm |
| Internal | Circuit Board accommodates user installed 9-V battery connector |
| Connection Ports | DB-9 female (radio) DB-25 female (computer/data terminal) |
| Watchdog timer | 2.5 min (approx) |
| External Carrier Detect | Pulldown to ground |
| A/D Converter | Two inputs; 0 ~ 5V dc 8-bit accuracy |
| Data Rate | 1200 bps (recommended); 300,400, 600 |
| PTT Output | Open drain, +50V dc max, 200 mA max |
| Audio Output | Continuously adjustable 1 mv p-p – 4 v p-p |
| Output impedance | 600 ac coupled |
| Modulation | 1200 bps FSK full duplex CCITTV.23 1300 Hz/2100 Hz |
| Audio Input | |
| Sensitivity | 5 mV p-p |
| Dynamic Range | 70 dB |
| Input Impedance | Unbalanced, I0K ; 600 with Jumper J3 installed |
| Max input voltage | ± 12V dc; 35V p-p sinusoidal |
| Operating Modes | Packet,WeFax,KISS, XKISS,HOST, GPS, MODEM |
| LED Indicators | Power, Xmit, Rcv, Connected, Status, Mail (user option on/off) |
| Remote Control Access | External Reset |
| Operating Protocols | AX.25 Levels I and 2 (user selectable) |
| Compliance | FCC Class B; Europe – CE Conformity |

KPC-3+/KPC-9612+ Applications Include:

- Keyboard to keyboard" communications.
 Digipeater
 Personal Mail Box
 Local area node
 Remote control devices
 Remote access of telemetry
 Network node operation (requires optional K-Net[™] firmware)
 Multi frequency "node stacking" capability (with K-Net[™] firmware)
 BBS operations and message forwarding
 GPS positioning transmitting and tracking
- (NMEA-0183 data required)
- Data storage and retrieval
- EMWIN Weather Information (additional software required)



SPECIFICATIONS – KANTRONICS KPC-9612+

| Dimensions (HWD) | 0.8" x 6.7" x 6.9" or 20 mm x 170 mm x 175 mm (w/o projections) |
|-------------------------|--|
| Weight | 18 oz. or 0.5 kg (approx) |
| Power Requirements | 5.5 V dc ~ 25 V dc, 45 mA (LEDs on, unit active) |
| Plug | Coaxial, center pin positive 2.1 mm |
| Internal | Circuit Board accommodates user installed 9-V battery connector |
| External | DB-9 female (radio port I); DB-15 female (radio port 2) |
| Connection Ports | DB-25 female (computer/data terminal) |
| Watchdog timer | 3 min (port I), 40 s (port 2) (approx.) |
| External Carrier Detect | Pulldown to ground |
| A/D Converter | Two inputs; 0 ~ 5V dc 8-bit accuracy Z in = 20 k |
| Data Rate Port I | 4800, 9600, 19,200, 38,400 bps |
| PTT Output | Open drain, +50V dc max, 200 mA max |
| Audio Output Port I | Continuously adjustable 1 mv p-p ~ 4 v p-p |
| Audio Output Port 2 | 2 mV p-p ~ (J20) off; 80 mV p-p (J20 on) |
| Output Impedance | 600 , ac coupled (port1): 600 , ac or dc coupled (port2) |
| Modulation Port I | 1200 bps FSK full duplex CCITT V.23 1300 Hz/2100 Hz |
| Modulation Port 2 | Gaussian Filtered DFSK with normal bandwidth of 0.3, 0.5 or full Duplex 4800, 9600, 19,200, 38,400 bps |
| Audio Input | |
| Sensitivity Port I | 5 mV p-p ~ 35 V p-p |
| Sensitivity Port 2 | Low: 15 mV ~ 200 mv p-p (J 16 on); High 80 mV ~ 2 V p-p (J20 on) |
| Dynamic Range | Port 1: >70 dB;Port 2: >20 dB (either range) |
| Input Impedance | Unbalanced, 10 k , 600 with Jumper J3 installed |
| Max Input voltage | Port I: ± 12V dc; 35V p-p; Port 2: ± 25V dc 25V p-p |
| Equalization | Port 1: None or Fixed; Port 2; Variable, Software controlled |
| RX S/N | $0 \sim 3 \vee dc (Zout = 2.2 k)$ |
| Operating Modes | Packet,WeFax,KISS, XKISS,Host, GPS,Paging, Moder |
| LED Indicators | Power, Xmit, Rcv, Connected, Status, Mail |
| Remote Control Access | All controller functions, user defined password |
| External Reset | Pulldown to ground |
| Operating Protocols | AX.25 version I and 2 (user selectable) |
| Compliance | FCC Class B; Europe CE – Conformity |

Additional KPC-9612+ Applications:

- Send and receive files
- Send and receive paging signals (POCSAG 512, 1200, 2400)

1200<>9600 gateway

You can carry a KPC-3+ into the field as a GPS mobile "tracker" or as a mobile data terminal. Its flexible power requirements (6 - 25 V dc) allow for maximum versatility. You can achieve many hours of use by installing a 9-V battery inside the KPC-3+. Battery life can be extended by disabling the LED displays through a simple keyboard command.



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