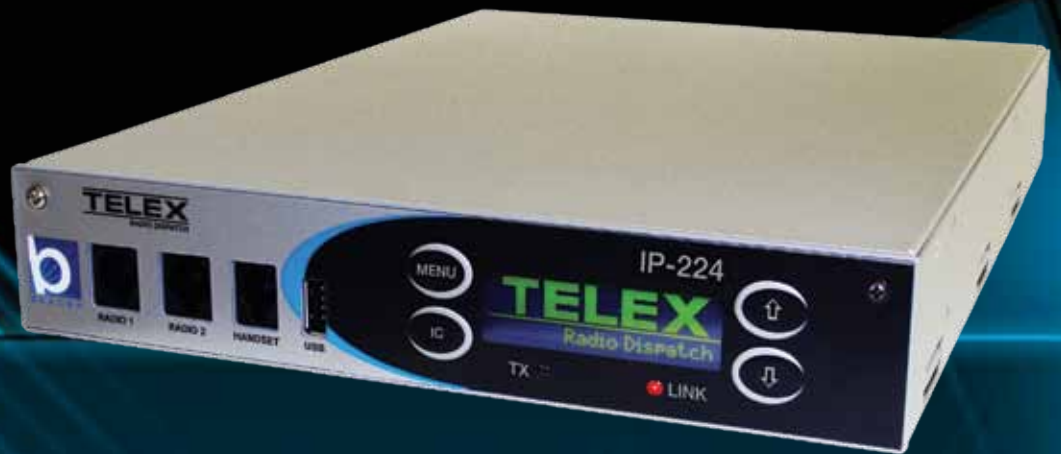


TELEX

Radio Dispatch

IP-224

Ethernet Adapter Panel



Innovating the Future of Mission Critical Communications



The heart of the Telex Radio Dispatch System has Linux OS with software driven settings, state-of-the-art system diagnostics, and configurations.



IP-224 Ethernet Adapter Panel

The IP-224 is the next generation of IP adaptor to form the heart of the Telex Radio Dispatch System.

Based upon the Linux operating system, the IP-224 provides an extremely reliable means of remote-controlling two audio devices. The IP-224 can be easily configured to work with both digital and analog consoles, and it performs a wide variety of other tasks related to using radios on a digital network, including state-of-the-art system diagnostics.

The IP-224's sleek new design combines form with function, allowing easy installation, operation, and servicing. The unit may be rack-mounted or placed directly on a desktop, and it is equipped with an LCD display to clearly provide user feedback when programming. VU meters are also provided via the display for alignment purposes. All other configurations are completed in the web browser configuration windows.

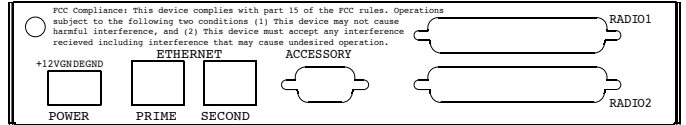
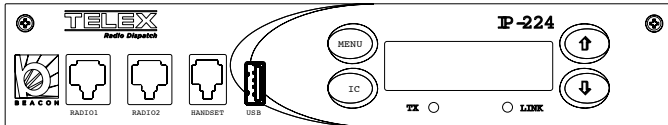
The IP-224 is backward compatible, allowing the use of IP-224 and IP-223 adaptors in the same system. This will allow a migration to the new products when desired.

Available Options

- FleetSync encode and decode
- MDC1200 encode and decode
- iDEN interface
- AHS-1 handset
- E.F. Johnson 1 RS5300 P25 radio interface

Features

- PTT (Push-To-Talk), monitor, and F1 and F2 relays (programmable to any function tone or revert to F1)
- Four PTT modes and three monitor modes
- Nine selectable PTT frequencies
- Eight digital outputs for channel selection, completely programmable per function tone
- CTCSS (Continuous Tone Coded Squelch System) generation (64 frequencies)
- Software gain control
- Local handset port for monitoring activity and transmission back to base or to radio, uses optional AHS-1 alignment handset.
- RX AGC (Automatic Gain Control)
- RX (Receive) audio squelch
- ANI (Automatic Number Identification) over-the-air-protocol decode and display
- Kenwood radio interface
- SoIP (Serial-over-Internet Protocol)
- Supports USB, RS485, CAN-bus, RS232, and TTL
- Radio communication
- Backwards compatible with Telex Radio Dispatch equipment
- Secure remote web-browser-based programming and configuration
- Single- or dual-function tone generation
- Guard tone user-selectable for 2100 Hz, 2175 Hz, 2300 Hz, 2325 Hz, 2400 Hz, 2600 Hz, 2800 Hz, 2850 Hz, or 2900 Hz
- Menu-driven front panel controls for TX, RX, spare audio, IP addressing, and CTCSS
- Number of channels or talk groups up to 1000
- Interface for MOTOTRBO™



Specifications

Power Requirements	+11 VDC to +16 VDC, 600 mA maximum
Ethernet Speed	10 BaseT or 100 BaseTX
Flash Memory	128 MB
SDRAM Memory	128 MB
Lease Line	2-Wire and 4-Wire supported
Radio Interface	±45 VDC withstand rating
Hum and Noise	60 dB below rated output for each line
Non-Relay Outputs	Open collector, active low, 200 mA maximum, 40 V collector to emitter voltage
Radio Input Level	10 mVp-p to 10 Vp-p, adjustable
Line Output Level	10 mVp-p to 10Vp-p, adjustable (Single-Ended)/20 mVp-p to 40 Vp-p, adjustable (Balanced)
Tone Frequencies	Single or dual function tone generation
Function Tone Range	0 Hz–3200 Hz, adjustable in 1 Hz increments
Total Tone Duration	0 ms–999 ms
Tone Magnitude	-60 dB to +12 dB
Vocoder	ADPCM 32/16 Kbits, 50 Kbits simplex (active channel) or 34 Kbits respectively
Relay Contact Ratings	1A at 63V AC/DC
Digital I/O Ratings	Pull up/pull down/float 3.3 VDC/5 VDC/12 V 10K Ohm Pull up
Transmit Output Impedance	600 Ohms for balanced mode, 200 Ohms for single-ended mode
Receive Input Impedance	10/600/10 K Ohms (User-selectable)
Audio Distortion	2% THD maximum
Audio Frequency Response	300 Hz to 3000 Hz + 1, -3 dB less than 3% distortion
LAM Sensitivity	-50 dB to +10 dB
COR Sensitivity	User selectable rising or falling edge from radio
DTMF Detection Bandwidth	±25 Hz around center of frequency
Monitor Timer	10 ms to 9999 ms, adjustable
Control Type	32-bit Digital Media Processor
Electro Static Discharge Immunity	8 kV on all exposed operator control areas. At 8 kV no operation is disturbed. At 8 kV no permanent damage.
Line Protection	Fast-acting solid state surge protection
Memory Protection	Settings preserved in non-volatile memory
Level Controls	Menu driven front panel controls for TX, RX, spare audio, and CTCSS
Operating Temperature Range	0° to 50° C (32° to 122° F) for full specifications
Storage Temperature Range	-30° to 65° C (-22° to 149° F) for full specifications
Dimensions	1.625 in. H x 11.5 in D x 8.5 in W. (41.3 mm H x 292.1 mm D x 215.9 mm W)
Actual Weight	4.125 lbs. (1.9 kg)
Shipping Weight and Dimensions	7 lbs. (3.18 kg), 5" H x 15" D x 16" W (127 mm H x 381 mm D x 406.4 mm W)

Specifications are subject to change without notification.

Product Information

SAP #	Description		
F01U164302	Standard IP-224	F01U165553	MDC1200 encode & decode software @pi
F01U165537	IP-224 with @pi options	F01U165554	MTRBi interface with cables
F01U165538	IP-224 dual mounting brackets	F01U165556	EFJ 5300 software & cable @pi
F01U165539	IP-224 single mounting bracket	F01U165557	iDen software & cable @pi
F01U165540	Kenwood TK x150 / x180 cable	F01U217158	FleetSync decode for field
F01U165541	Kenwood TK x90 cable	F01U217159	FleetSync encode & decode for field
F01U165542	Sepura cable	F01U217160	MDC1200 decode software for field
F01U165543	Viper cable adaptor	F01U217161	MDC1200 encode & decode for field
F01U165544	Cabtone cable assembly	F01U217162	EFJ software & cable for field (per line)
F01U165545	Motorola CDM 1250 cable only	F01U217163	iDen software & cable for field (per line)
F01U165548	IEFJ 5300 cable only		
F01U165549	iDen cable only		
F01U165550	FleetSync decode software @pi		
F01U165551	FleetSync encode & decode software @pi		
F01U165552	MDC1200 decode software @pi		

This specification information is subject to change without notification.
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