

### Conventional IP25™ Voter

#### Conventional IP25 Voter

EFJohnson's Conventional IP25™ Infrastructure System provides secure, reliable communications for First Responders. It combines Project 25 advanced private land mobile radio features and Common Air Interface with the Internet Protocol (IP), the global standard for packet data networks.

The Conventional IP25 Voter helps correct the imbalance caused by high-power transmit sites with a large talk out range, and low-powered mobile and portable radios with a relatively small talkback range. The IP25 Voter works with geographically dispersed receive sites to extend the talkback range of conventional mobiles and portables.



The Conventional IP25 Voter uses a modern, software based design that supports analog, P25 digital, clear or encrypted communication. This mixed mode voting comparator has multiple DSPs, utilizing multiple quality indicators to select the best signal for re-transmission and/or routing to a dispatch console.

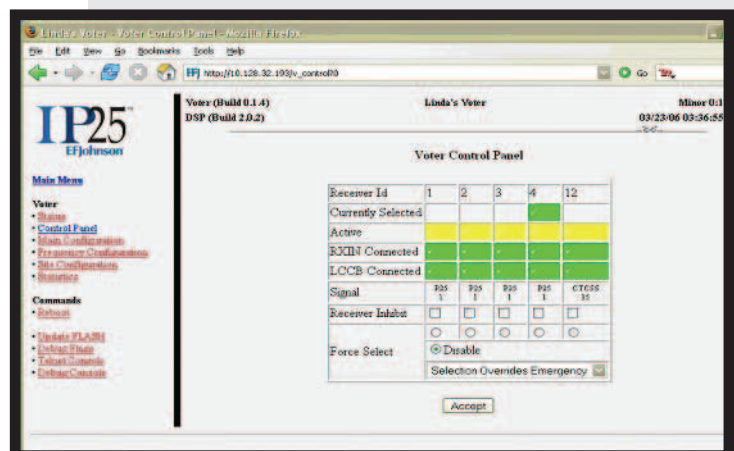
The IP25 Voter is ideal for small or large systems. A single IP25 Voter can support up to 16 receivers operating on the same frequency. Its inherent IP architecture enables low cost, single-site or wide area systems, and simple implementation of features such as multicast and transmitter steering.

Whether public safety or federal government, the IP25 Voter is the ideal choice for First Responders needing fast, reliable, high quality communication.



#### Advantages:

- Integrated solution for Conventional P25 digital and analog voting
- Supports clear and encrypted digital voice
- Modern software based design
- Sophisticated voting algorithms utilize up to 4 methods of comparison to ensure the best signal is selected
- Support up to 16 receivers with one IP25 Voter
- Browser-based Voting System Management
- Native IP-based architecture
- Streamlined 1 Rack Unit design



## Conventional IP25™ Voter

### Integrated Analog and Digital Voting

The IP25 Voter is a conventional voting comparator that supports both analog and P25 digital signal voting in a single rack unit device. It also supports clear and encrypted digital calls.

### Sophisticated Algorithms Using Multiple Quality Methods

The IP25 Voter utilizes multiple DSPs and multiple methods of comparison to ensure the best signal is selected for communication. The type of call (analog or digital) and signal conditions (strong or weak) are used to determine the voting method or methods.

For analog calls, the voting algorithm will use a combination Out-of-Band Energy (OOBE), Received Signal Strength Indication (RSSI), and Signal-to-Noise Ratio (SNR), with OOBE providing the most valuable information in weak signal conditions and RSSI providing the most valuable information in strong signal conditions. For digital calls, quality selection is based on error counts, and in situations where multiple packets have no errors or the same number of errors, the Voter will use RSSI.

### Call Priority and Arbitration

In situations where calls are received from multiple sources at the same time, the Voter will use priority and the configurable rules of Preemption and Ruthless Preemption to determine which call source should take over the channel. Emergency calls are automatically given the highest priority and will preempt any pre-existing non-emergency calls regardless of the configuration of the Preemption or Ruthless Preemption options.

### Voting System Management

The Voting System Management application allows remote configuration, administration and maintenance of the Voting System. The System Management application can be accessed using a standard Internet browser. To ensure the operation of the IP25 Voter, the System Manager can be used for the following:

- Monitor voting system operations including which receivers are connected, active in a call and selected.

- Control the voting system including disabling or forcibly selecting a receiver
- View system alarms including a receiver or link failure, IP25 Voter DSP failure or socket failure.
- Generate hourly, daily, weekly or monthly statistical reports on voting activity.

### Voice-over-IP Architecture

The IP25 Conventional System utilizes a Voice-over-IP (VoIP) architecture. Each element in the system, including the IP25 Voter, has an Ethernet port and software supporting standard Internet Protocol (IP) networking. This native IP architecture allows quick plug and play installation, feature rich, wide area routing and remote software upgrades.

No complicated wiring, crosspatch panels or Centralized Electronics Banks are needed. Multicast and transmitter steering are a snap with IP call routing. New software for the IP25 Voter can be easily sent using FTP.

Specifications:	
Interface	Dual 10/100 Base T Ethernet
Max. Number of Receivers	Up to 16
Analog Voting Methods	Signal to noise ratio (SNR) Received Signal Strength Indication (RSSI) Out of band Noise (OOBN)
Digital Voting Methods	Bit Error Rate (BER) Received Signal Strength Indication (RSSI)
Voting Rate	Up to 50 votes per second
Receiver Protection	
Analog	CTCSS, CDCSS
Digital	NAC
Operating Temperature	-30 to +60
Humidity	5% to 95% Non-condensing
Power Requirements	12-24 VDC 110-240 VAC, 50-60 HZ
Power Consumption	12 Watts
Dimensions	1.75" H x 19" W x 12" D (1 RU)
Weight	10 lbs