FIXED STATION INTERFACE ACCESS POINT (FSIAP-25)

Westel's Fixed Station Interface Access Point (FSIAP-25) provides remote access and control of a P25 Base or Repeater over an ethernet network.

The FSIAP-25, which is located at the console or remote, is connected to the distant repeater by means of any available Wide Area Network (WAN) connection.

The FSIAP-25 incorporates P25 IMBE vocoding to allow direct connection to P25 bases and repeaters. DES-OFB and AES encryption are available as options.

Programming of the FSIAP-25 is accomplished either through via the USB port (a command line interface) through a web browser interface

The FSIAP-25 provides four modes of operation.

Local Mode (P25) – Either a handset with PTT is connected to the rear panel line interface or a speaker-mic is connected to the audio interface.

Audio is digitized using the IMBE vocoder and sent to the repeater over the WAN where it is transmitted as a P25 signal. In the reverse direction a P25 signal received by the repeater is sent over the WAN to the FSIAP-25 where it is de-vocoded and passed to the audio interface as baseband analog audio.

Tone Mode (P25) – Is similar to local mode and allows use of existing tone based legacy remote and console equipment to control the remote repeater.

Local Mode (PCM) – A handset with PTT is connected to the line interface. Audio is digitized into PCM format and sent to the repeater over the WAN where it is transmitted as an analog signal. Analog signals received by the repeater are sent over the WAN to the FSIAP-25 where they are converted from PCM to baseband audio and passed to the audio interface.

Tone Mode (PCM) – Is similar to Local Mode (PCM) and allows use of existing tone based legacy remote and console equipment to control the remote base or repeater.

WAN Mode (P25/PCM) – In addition to being connected to the repeater via a WAN the FSIAP is also connected to a console via the WAN.

The FSIAP receives IMBE speech from the remote repeater over the WAN and converts that to PCM speech including decryption where necessary. The PCM speech is passed to the console.

In the reverse direction the FSIAP accepts PCM speech from the console over the WAN and converts that to IMBE, which is then passed to the remote repeater over the WAN.

Encryption – When operating in Local Mode (P25) and Console Mode (P25) and WAN Mode (P25/PCM) the P25 IMBE signals may be encrypted and decrypted using DES-OFB or AES.

Tones supported – In Tone Mode standard tones (listed overleaf) are supported and may be used to cause the remote base or repeater to transmit or change channels.

Front Panel features:

- 2x20 character backlit LCD display for operating and status information

- USB port for configuration and programming.

Rear Panel connections:

- Power In (12V DC)
- RJ45 Line Interface
- I/O interface with:
  - Tone control select
  - PTT input
  - COR output

  (all I/O is opto isolated)

- RJ-45 Ethernet connector

SPECIFICATIONS

Operating Temperature Range:	0 to 40C
Radio Interface:	10 BaseT or 100 BaseTX
Supported:	P25 Fixed Station Interface Westel Fixed Station Interface (P25 CAI) Westel Fixed Station Interface (PCM)
Line Interface:	2W or 4W internal link selectable
Line output (radio receive)	-10dBm (nominal), adjustable -0, +16dB
Line input (radio transmit)	0dBm (nominal), adjustable +0, -16dB
Speaker-Mic Interface:	
Speaker output	0.5W
Microphone input	0dBm (nominal)
I/0:	
Tone mode select	Opto isolated, 10k in series, 1mA
PTT input	Opto isolated, 10k in series, 1mA
COR output	Opto isolated, 200mA max
Internal Vocoding:	P25 IMBE PCM – 64kbit/s u-law
Tones Supported (in tone mode):	PTT: 2175 Hz
	F1: 1950 Hz F2: 1850 Hz F3: 1750 Hz F4: 1650 Hz F5: 1550 Hz F6: 1450 Hz F7: 1350 Hz F8: 1250 Hz F9: 1150 Hz F10: 1050 Hz F11: 950 Hz F12: 850 Hz
Power Requirements:	+12 to +16 V DC, 15W.
Dimensions:	19”, 1RU shelf (483mm x 44mm x 255mm)
Weight:	3.1 kg

Specifications are subject to change without notice.

Warranty: All Westel products are subject to the company’s standard warranty terms, available on request. In summary, Westel products are guaranteed against malfunction due to defects in materials and workmanship for 12 months from the date of original purchase. If such a malfunction occurs, the product will be repaired or replaced (at our option) without charge if delivered to Westel’s factory. This warranty will be voided if tamper-proof seals placed at the time of manufacture are broken. This warranty does not extend to damage due to finish or appearance or malfunction due to abuse or incorrect operation or operation under other than the specified conditions. The warranty does not extend to incidental or consequential damages.

WESTEL WIRELESS SYSTEMS

Westel products are manufactured in Australia and exported worldwide.

For North, Central and South America, contact:

Icom America Systems Inc

Relm Wireless Corporation Inc

For all other regions, contact:

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