



Irukandji APCO-25 REPEATER/BASESTATION

Westel's *Irukandji* APCO-25 Repeater is a single ergonomic digital radio repeater/basestation, housed in a highly compact package. Only 2RU (88mm) high and designed for mounting in a standard 19" rack, the *Irukandji* incorporates P25 IMBE vocoding, P25 DES OFB Encryption and provides 2W and 4W line interfaces to tone based remotes and consoles, and PSTN interfaces.

The transmitter provides a 50W output and provision is made for an internal transmit/receive relay.

Powered directly from 12V and permitting a wide range of supply options the *Irukandji* is ideally suited for multiple channel installations. Programming and management is performed using powerful Windows® based configuration and diagnostics monitoring tools.

The *Irukandji* will be compatible with Westel's Trunkissimo P25 trunking platform and the web-based diagnostics and monitoring and Voice Over IP (VOIP) already available for Westel's DRB-25 P25 Dual Repeater/Basestation. The APCO-25 IP-based Fixed Station Interface will be available as a software enhancement.



General Specifications

Frequency:	136 – 174 MHz (VHF) 380 – 520 MHz (UHF)
Frequency accuracy:	Better than 0.5 ppm (0.1 ppm optional)
External reference input	10 MHz
Maximum deviation, audio response and audio distortion:	As per EIA/TIA 603 (analog) and ANSI/TIA 102.CAAB (digital).
Antenna impedance:	50 ohms
Dimensions:	483 mm (w) × 89 mm (h) × 485 mm (d)
Mass:	10 kg
Power supply / Consumption:	12 VDC Receive/Transmit: 25 W/165 W

Transmitter Performance

Output power:	50 W
Intermodulation attenuation:	40 dB
Spurious and harmonic emissions attenuation:	67 dB
Hum and noise:	
WB Analog:	>40 dB
NB Analog :	>34 dB
Digital:	Not applicable

Receiver Performance

Sensitivity (12dB SINAD):	-118 dBm
Sensitivity for BER 5%:	-116 dBm
Signal displacement bandwidth:	
Analog:	>40% of rated system deviation
Digital:	1 kHz
Intermodulation rejection:	
Analog:	>70 dB
Digital:	>80 dB (per TIA102.CAAB Class A)
Spurious and image response rejection:	
Analog:	70 dB
Digital:	90 dB (per TIA102.CAAB Class A)
FM hum and noise:	
WB Analog:	40 dB
NB Analog:	34 dB
Digital:	Not Applicable

Applicable Standards

Digital mode operation:	ANSI/TIA102.CAAA/CAAB
Analog mode operation:	TIA / EIA 603/ AS/NZ 4295
EMI / EMC:	NTIA Manual Chapter 5 /FCC part 15
PSTN line isolation:	FCC part 68 (USA)
Encryption:	DES OFB (Type III)

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