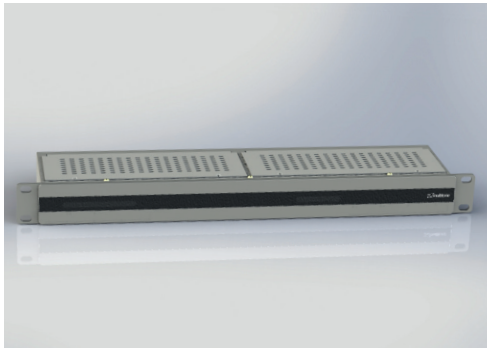
Call Verifcation Unit

Tech Sheet



The Call Verification Unit (CVU) provides an “off air” facility, for the confirmation of transmitted paging calls. The RF input to the unit is connected to a dipole or simple whip aerial and the received RF signal is fed to the radio board. A ‘carrier detect’ facility monitors for the presence of a valid RF carrier signal which when verified, is notified to the Multitone i-Message system. If the CVU detects a failure, the system is programmed to re-send the message up to three times. If the fault persists, i.e. an invalid transmission, then a system alarm is initiated.

The CVU must be used in conjunction with a LAN Peripheral Interface (LPI), which monitors the data stream produced from the CVU and presents the decoded signal to the main system via the LAN interface, for logging and/or display.

Three options are available covering HF, VHF and UHF frequency bands, and each will support the following BAUD rate and code formats:

- 512 baud Multitone Mk7 paging calls
- 1200 baud Multitone Mk7 paging calls
- Multitone Mk6 paging calls
- 512 baud POCSAG paging calls
- 1200 baud POCSAG paging calls

NB: EIA 2-Tone is not supported as this is a tone and not a digital code format and therefore cannot be decoded by the CVU.

Product Variants

IM-CVU-D

Stand-alone variant (desktop, or wall mounting) supplied with 12V DC switch-mode power supply unit. A LAN Peripheral Interface (IM-LPIS-D) will be required for each CVU, to allow direct communication with the Multitone i-Message system.

- Dimensions: 220mm x 113mm x 43mm
- Weight: 0.89kg

IM-CVU-R

Stand-alone variant (rack mounted) supplied with 12V DC switch-mode power supply unit. A LAN Peripheral Interface (IM-LPIS-R) will be required for each CVU, to allow direct communication with the Multitone i-Message system.

- Dimensions: 440mm x 113mm x 43mm (1U Rack Slot)
- Weight: 1.00kg (Approx.)

IM-CVU-LPI-R

A 19” rack-mount version, which incorporates both the CVU and the LAN Peripheral Interface (LPI), enabling direct communication with the Multitone i-Message system.

- Dimensions: 440mm x 113mm x 43mm (1U Rack Slot)
- Weight: 1.85kg (Approx.)

IM-CVU-DBI-R

A 19” rack-mount version, which incorporates both the CVU and Dual Bearer Interface (DBI) , enabling main (TCP/IP) and standby (PSTN) communications with the Multitone i-Message system.

- Dimensions: 440mm x 113mm x 43mm (1U Rack Slot)
- Weight: 1.75kg (Approx.)

Technical Specification

Frequency range: 25 to 54MHz (HF), 138 to 174MHz (VHF), 407 to 417MHz and 430 to 470MHz (UHF)

- Channels: 1
- Bandwidth: 10/12.5KHz or 20/25KHz
- Sensitivity: -110dBm
- Power:
  nominal 13.8Vdc (7 to 18V permitted)
  current 45mA (at 12V)
- Power supply: Multitone part no. 6603-0052
- Outputs:

  0 to 5V data

  -6 to +6V data (RS232 levels)

  0 to 5V carrier present

  -6 to +6V carrier present (RS232 levels)

  20mV received audio (normally for SINAD adjustment)
- RF input connector: 50 Ohms BNC
- Output connector: 9-way ‘D’ socket (use lead 7761-8917 to connect to LPI4)
- Power connector: 2.1mm lockable concentric jack
- Input attenuator: 0 to 70dB in 10 dB steps
- Switches:

  S1-1 10dB input attenuator ON-OFF

  S1-2 20dB input attenuator ON-OFF

  S1-3 40dB input attenuator ON-OFF

  S1-4 HF/VHF or UHF ON = VHF or UHF

  S1-5 Data invert

  S1-6 Not used

Note: The Call Verification Unit will not reliably support 1200 BAUD POCSAG, where an Intelligent Transmitter Interface (ITI) is used in the system. This is because V23 modem tones are not synchronous with the data, but about the same frequency and can therefore introduce excessive jitter. This excessive jitter causes both call verification and decoding to be unreliable. However, the direct connection to a LAN Peripheral Interface (LPI) will work in this application, as there is no modem in the system to cause possible jitter.

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