

# VCE™ MODULE

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VCE OEM telephone module is designed to provide clear, hands-free voice communications in high acoustic noise environments. The module utilises patented digital voice enhancement and advanced Digital Signal Processing (DSP) techniques to provide clear intelligible communications where ambient noise levels can reach 105dBA, as would be experienced in a motorway tunnel. Typical applications are emergency or safety communications where the module is incorporated into telephone systems where calls are set up between high ambient noise environments and a call centre. Designed to be easily integrated into most communication systems using software configurable options and internal diagnostics. On-board facilities are provided to interface and control other devices via configurable digital I/O lines, serial port and switchable power.

## FEATURES

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- Predictive echo cancellation and self adjusting speech algorithms
- Mobile (GSM), fixed line (PSTN) telephone or ethernet (VoIP) options
- Extensive internal diagnostics, accessible locally or remotely
- Configure remotely using tone-dialing, or optional on site via data communication port
- Adaptive volume control and duplex operation
- Programmable send and receive levels
- External battery with charging options (solar, mains or remote power feed)
- Sleep mode to minimise power consumption
- Digitally stored announcements
- Response to remote user commands is by digitised voice
- Real time clock
- Tilt/vandal detection and automatic reporting
- Unique ID for location information
- Up to three auto dialling numbers, 20 digit
- Multiple audio I/O
- Lightning and radio frequency interference protection on PSTN / DC Feed board

## TECHNICAL SPECIFICATIONS: VCE™ MODULE

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### Physical

Box Dimensions: 122W x 257L x 67D (mm)  
Mounting flange: 122W x 281L (mm)  
Mounting holes centres: 71W x 266L (mm),  
6mm diameter for M4 stud

### Environmental

Temperature range: -10 to +70 degrees C  
Humidity: 95% non-condensing

### Power Options

12V Solar Panel, Mains plug pack 15VDC  
1A Remote power feed 22V-70VDC  
External 12V sealed lead acid battery

### Network

PSTN or PABX  
GSM, (Next G SIM compatibility)  
Ethernet (VoIP) (Peer to Peer availability)

### External Interfaces

Serial port, control I/O, Audi I/O

### Audio

Adaptive full duplex  
Automatic volume control  
Noise environments up to 105dBA  
High level audio output, for speaker  
Low level audio output via codec



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**Configuration**

Factory preset  
Remote dial in  
Management Software

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**Maintenance**

Diagnostics via  
1. Remote dial in  
2. Remote PC based management system

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**Security**

Four digit PIN protection  
Automatic tilt/vandalism warning with dial up  
reporting

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**Compliance**

ACMA  
C-Tick

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**Supporting products**

Matched high clarity speaker assembly  
with integrated microphone  
WayPhone Manager for control room  
call management  
WayPhone Tester for  
automatic and remote testing  
WayPhone

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**Warranty**

12 months on parts and labour from date of  
delivery.

# VOIP MODULE

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## Model

VoIP PBA 1162

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## Operating temperature

0°C to 70°C

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## Storage temperature

-40°C to 70°C

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## Humidity

5 to 95% non-condensing

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## Power Requirements

12V - 24V DC 1A

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## Power Consumption:

Idle current 65mA

Typical current while call in progress 80mA

Maximum current while call in progress 150mA

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## Dimensions

140mm by 85mm

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## Supported protocols

G.711 (mu-law + A-Law)

Session Initiation Protocol (SIP) RFC 3261

Real-Time Transport Protocol (RTP) RFC 3550

Session Description Protocol (SDP) RFC 2327

Trivial File Transfer protocol (TFTP) RFC 1350

User Datagram Protocol (UDP) RFC 0768

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## Physical connections

Power (2 way plug in screw in connector)

Local area network (LAN) connector

Button (8 way molex connector)

Programming (5 by 2 way connector)

LED (3 way molex connector)

Microphone (2 way molex connector)

Speaker (2 way molex connector)

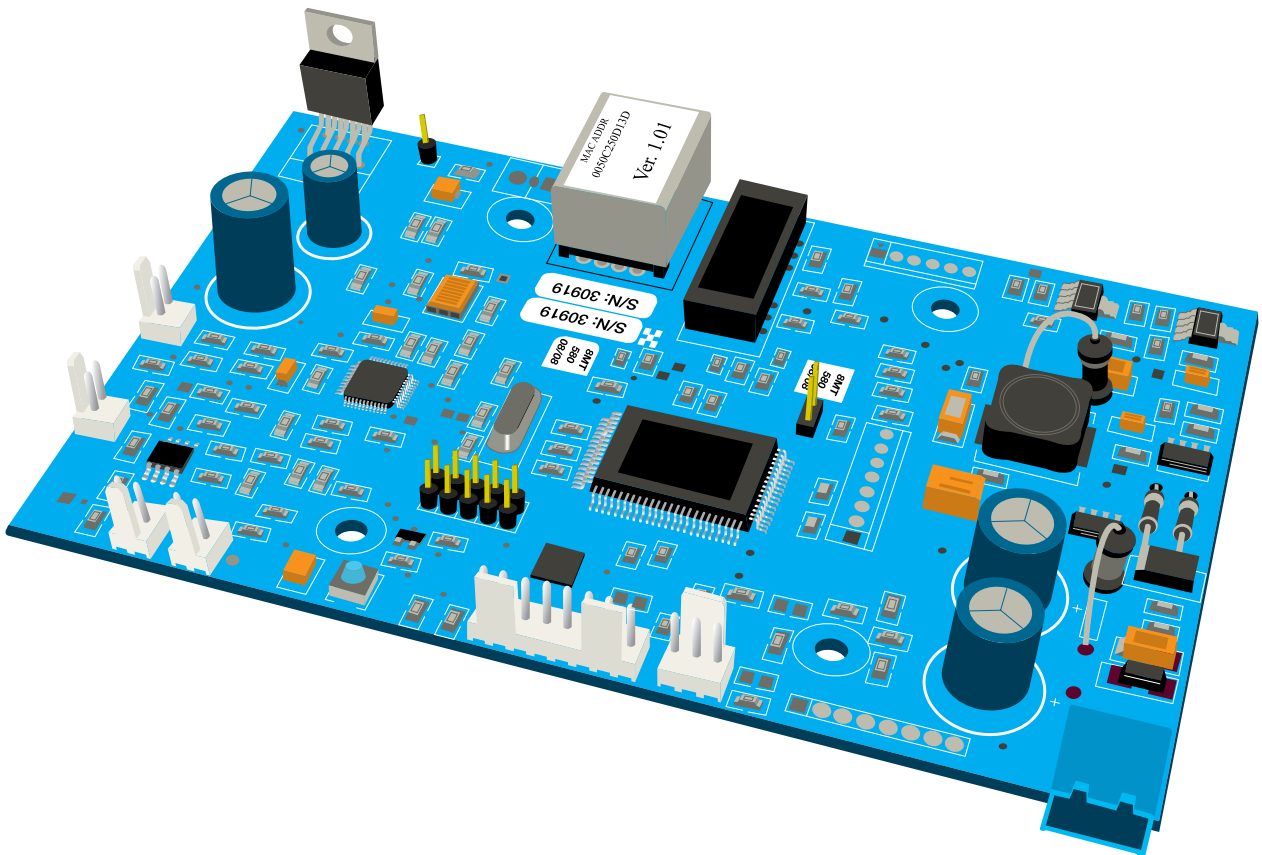
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## Audio specifications

G711 mu-law + A-Law

Audio in 1.0V

Audio out 1.0V



# CS-LVD MODULE

WayPhone Low Voltage Disconnect accessory will extend the life of connected batteries by preventing damaging over discharge. It will also ensure WayPhone operation is not compromised by low battery voltage. When the battery voltage drops to very low levels, it is considered better the phone switches off than operate abnormally.

The disconnect voltage is factory programmable but is typically set at 10.5V, optimal for Sealed Lead Acid cells used in most WayPhones. The loaded battery voltage is periodically tested to determine if the

voltage is too low for reliable operation and approaching the level that causes battery degradation.

If the voltage is too low, the load (WayPhone) is disconnected from the battery.

The charging circuit remains connected to the battery and periodically, the LVD module tests the battery by applying a 'dummy' load and measuring the voltage. If it is considered charged enough for operation, it reconnects the battery to the WayPhone. The decision threshold for reconnection is also factory programmable but will typically be set to 12V.

A slowly blinking red LED indicates the battery has been disconnected from the load. A switched power output can be provided to ensure any ancillary equipment is also disconnected from the battery when the voltage is too low. If the equipment remains connected, the battery will continue to discharge, negating the benefit of the LVD device. Examples of such equipment are Line Extenders, Media Converters or Ethernet Switches.

## Low voltage (Battery) Disconnect within WayPhone.

