

GS-Mobile Phone Interface *A Range Of GSM Mobile Phones For Broadcast*

The Glensound Mobile Phone Interfaces allow integration of GSM telephone calls into the broadcast chain. One portable unit and three subrack units elevate the GSM phone into a broadcast specification product, for outside reporting, comms, or backup.

Key Points

- Quad band GSM phone
- 6.35mm headphone connection for 200 - 2000 ohm headphones or headsets
- XLR mic input with finely calibrated compressor / limiter circuit (GS-MPI004 portable unit), to avoid input clipping
- Individual send and return on XLR sockets with independent level controls. Gives complete separation of send and return circuits.
- Complete RF shielding of all audio circuits to prevent interference in signal path.
- GS-MPI004 operates on 4 x AA batteries, or via external plug top power supply. Subrack versions have an internal switch mode power supply.

The GS-MPI Range



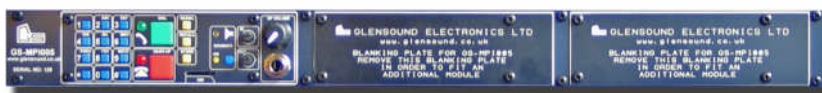
The GlenSound Broadcasters' GSM Phone

The GS-MPIs have been specifically designed for the needs of a modern broadcaster. They are quad band GSM mobiles with broadcast specification input and output interfaces, with full RF shielding of all audio circuits to ensure interference free audio. The digital balancing unit provides complete separation of the send and return circuits for a true GSM digital balancing unit.

- **GS-MPI004**
Portable Broadcasters' Mobile Phone



- **GS-MPI005**
Rack Mount Broadcasters' GSM Phone



- **GS-MPI006**
Rack Mount Broadcasters' GSM Phone With ISDN



- **GS-MPIFW**
Rack Mount Broadcasters' GSM Phone With Twin Four Wire



GSM Features All Models



- Quad Band**
The GS-MPIs contain a quad band mobile phone, that will allow the unit to be used in most places of the world, where standard GSM networks are available. If your own mobile phone works, the GS-MPIs will work too. The SIM card fits into a front panel slot and is recessed to avoid accidental removal during operation.
- Broadcast Headphone Connection**
There is a 6.35mm headphone socket for connecting a pair of headphones or a headset. The units are optimised for an impedance from 200 - 2000 Ohms. As the MPIs will often be used in noisy environments, a high output level is available using a variety of broadcast headphones and headsets.
- Independent Send & Return Audio Connections**
GSM telephone balancing is offered with separate XLR audio connections for the send and return signal. The GS-MPIs offer 100% separation between the send and return paths. The send connection is on a balanced XLR (switchable with a mic input on the GS-MPI004). The return is on a balanced XLR and contains the return audio (caller) only. There is also independent level control for the send and return audio.
- RF Shielding Of Audio Circuits**
A carefully designed RF shield insulates the audio circuits from all radio frequency interference. The GS-MPIs own RF does not interfere with its own audio circuits ensuring that typical GSM RF interference is never heard.
- Auto Answer**
There is a configurable auto-answer, from 'off' to 9 rings.
- Memory Dialling**
There are 10 memories for instant memory dialling of popular numbers.
- Simple LED Status Indication**
A red and green LED indicate network and call status.
- SMA Aerial Connection**
A standard SMA aerial connection is provided for the attached right angle antenna (GS-MPI004) or a separate extension aerial (all rack units)



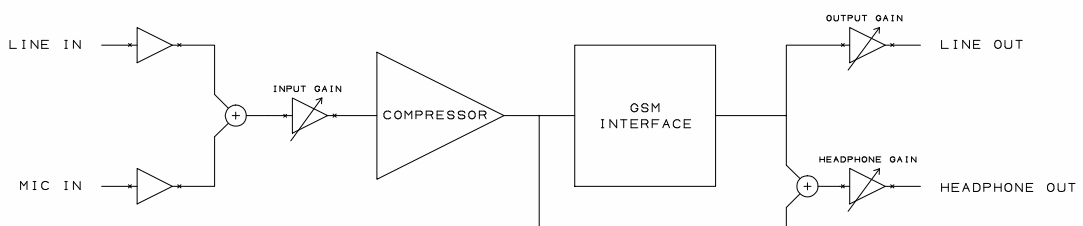
GS-MPI004

Portable Broadcasters' Mobile Phone



Further images on pages 10 & 11

- Broadcast Microphone Connection**
 There is an XLR socket for connection of dynamic handheld or headset microphones. The GS-MPI004 can therefore be used for interviewing with handheld microphones. The mic input is switchable with the line input.
- Compressor / Limiter**
 As the GS-MPI004 will often be used for sports reporting, where high input levels are common, the mic input contains GlenSound's dedicated compressor/limiter circuit that ensures incoming audio is always clear from distortion.
- Portable Belt Pack Case**
 The GS-MPI004 is in a heavy duty belt pack style case. The exposed sides are nylon dipped for maximum resistance to damage. The case overhangs to protect all controls. A belt clip is included and the corners feature holes for shoulder straps or security fixings.
- Powering Options**
 The GS-MPI004 operates from 4 x AA batteries in a convenient 'snap in' cartridge. Regular batteries are used so that an operator can easily obtain them and be ready to broadcast, without having to wait for a unit to charge. High quality batteries give approximately 4 hours of continuous talk time. An optional DC plug top power supply is available.



GS-MPI004 Block Diagram

GS-MPI005

Rack Mount Broadcasters' Mobile Phone

Additional Features



- One To Three Mobile Phones In A 1U Subrack**
Our 1U subrack Broadcasters' Mobile Phone can hold between 1 to 3 GSM phone units. The extra phone modules can easily be added at any time. Unit pictured is with 3 phones.
- Audio Inputs And Outputs**
The rear panel accommodates the line input and output along with the SMA aerial connection. Headphone socket is front panel mounted per phone.
- Extension T Bar Aerial Included**
The rack mount versions of the Broadcasters' Mobile Phone' include a standard SMA aerial connection but with an extension T-Bar aerial on a 3m lead.
- Built In Power Supply**
Internal switch mode power supply is rated from 100V - 240V. This will power all three phones if fitted.



Rear of GS-MPI005 with 1 phone module fitted

NB:

The block diagram of the GS-MPI005 is the same as the GS-MPI004 on the previous page, but with a line input only.



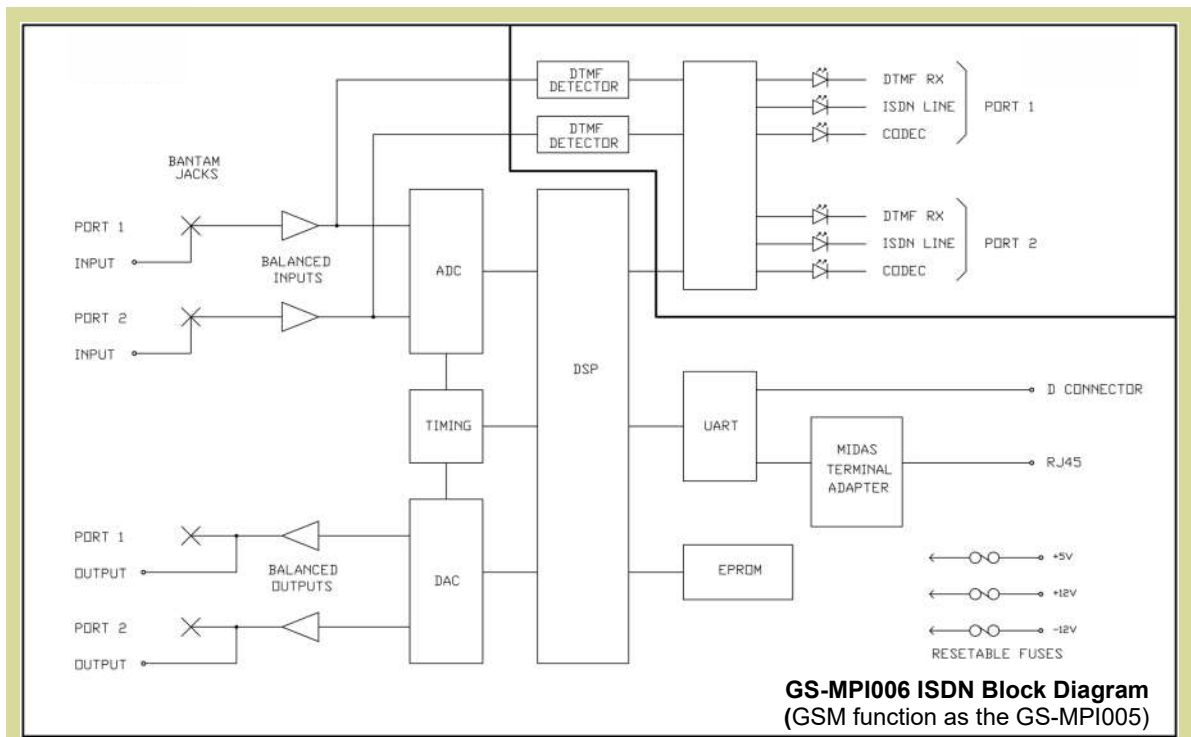
GS-MPI006

Broadcasters' Mobile Phone With ISDN

GS-MPI006 Features



- Contains 2 x GS-MPI GSM Mobile Phones**
 Two separate GS-MPI GSM mobiles phones are included.
- Contains 2 x ISDN Codecs**
 A single ISDN S bus connects the ISDN circuits to 2 separate G711/G722 codecs. The G722 algorithm offers the maximum in worldwide compatibility.
- Make And Receive Ordinary Telephone Calls Via ISDN(G711)**
 The G711 coding is the telephone standard allowing you to dial and receive calls from normal POTS telephone lines.
- Use ISDN Audio Circuits For Dialling And Control Using DTMF**
 The ISDN circuits are controlled via DTMF either from connected phone handsets or from an external DTMF remote (available separately).
- 'Talk To You' Function**
 ISDN status & instructions are given via an on line spoken message, making dialling and investigating status simple.
- Remote Control Available Via RS232 On Front Panel 9 Pin D-Type**



GS-MPIFW

Broadcasters' Mobile Phone With Twin Four Wire/IFB

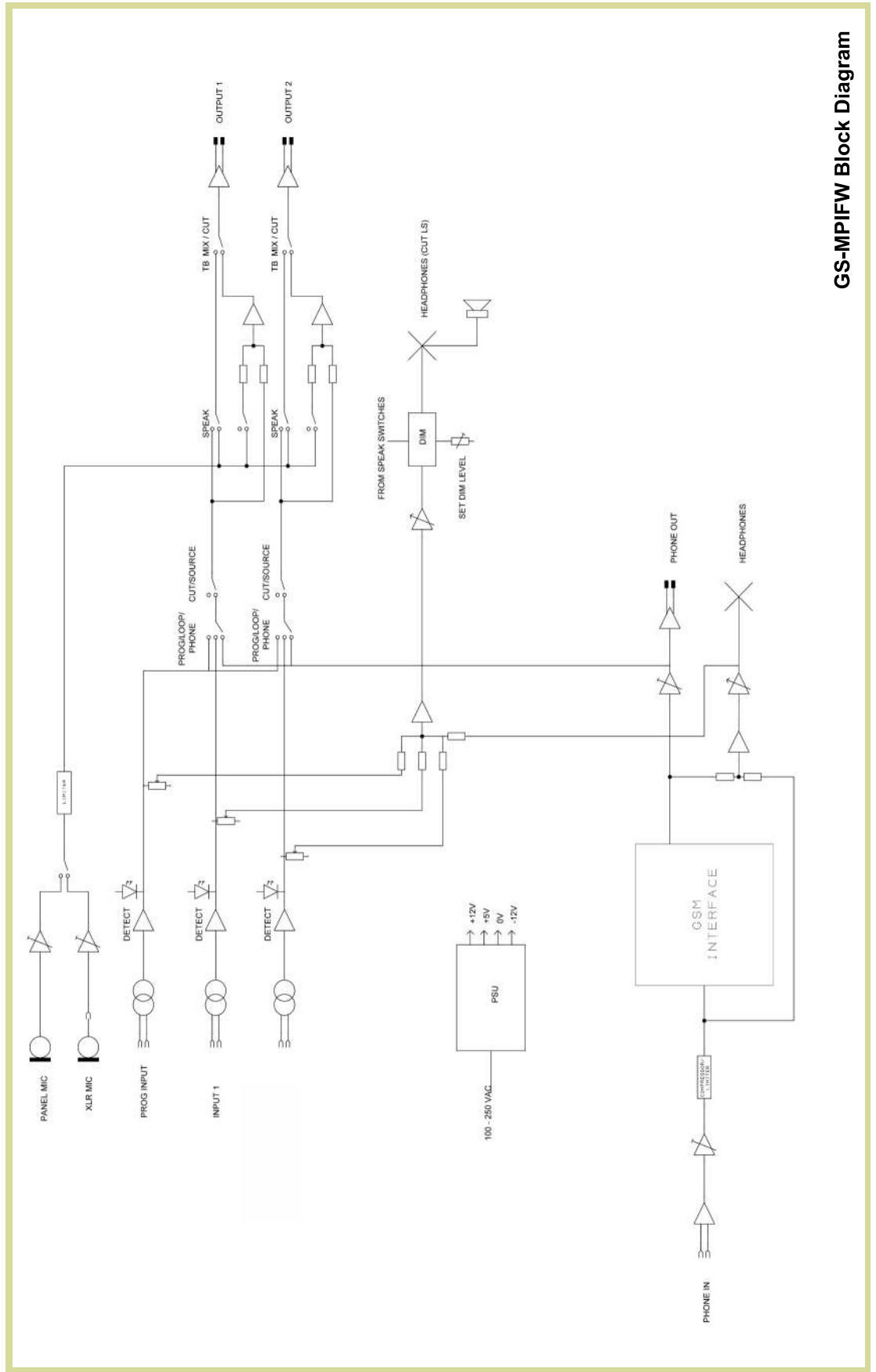
GS-MPIFW Features



- **Single Broadcasters' Mobile Phone**
A single GS-MPI module with the standard GSM features.
- **Two x Four Wire/IFB Circuits**
Each circuit can be used independently in four wire mode.
- **Versatile Four Wire Output Options (Programme, GSM, IFB)**
 1. An external programme input can be switched onto either four wire output.
 2. The incoming audio from the GSM call can be switched onto either four wire output.
 3. One circuit's four wire input can be switched to its output.
- **Interrupted Feed Back**
When the talk button is pressed the talk audio can either replace the selected output or mix over it (IFB).
- **LEDs & Loop Outputs**
Green LEDs give visual indication of return audio, and a d-type connector on rear with loops is active when talkback 1 or 2 are selected.
- **Two Position Speak Key**
The speak keys are in push to talk mode when pushed down, or latch when pushed up. There is a front panel mic or connection for external mic.
- **Front Panel Monitoring**
There is a front panel speaker, with a 6.35mm headphone socket that mutes the speaker when headphones are connected. Adjustable volume control. Programme, phone, and four wire inputs are all mixed here for monitoring.
- **Front Panel Mic Input**
There is a panel mounted microphone and an XLR socket to connect an external mic if required.



GS-MPIFW Block Diagram



GS-MPI**Broadcasters' Mobile Phone****Applications****GS-MPI004**

Portable Broadcasters' Mobile Phone

- Sports and news reporters for quick, live interviews without the need to carry any heavy equipment.
- For out side broadcast reports in remote locations.
- A low cost back up. Should an outside broadcast line fail, the GS-MPI004 is a simple alternative.
- For use in remote applications where clean audio is required without RF interference.
- For TV news presenters IFB feeds

GS-MPI005

Rack Mount Broadcasters' GSM Phone

- For integrating a GSM line into an outside broadcast vehicle or studio.
- For use as an extra, or backup, talk back channel.
- Ideal as the phone in point for part time or temporary studios to avoid the cost of permanent line connections.
- If 100% separation is required between send and return circuits as this is not possible on normal phone lines.

GS-MPI006

Rack Mount Broadcasters' GSM Phone With ISDN

- Space saving by putting multiple outside source comms channels (GSM & ISDN) into a 1U subrack. This is particularly relevant in outside broadcast vehicles.
- Back up talk back or broadcast channel with GSM should the ISDN fail.

GS-MPIFW

Rack Mount Broadcasters' GSM Phone With Twin Four Wire

- A sensible mix of four wire system with the GSM phone for an outside broadcast vehicle.
- Backup for studios and OB vehicles.
- Provides simple talkback facilities for fly aways.
- For seamless integration of local talk back facilities to a remote studio.

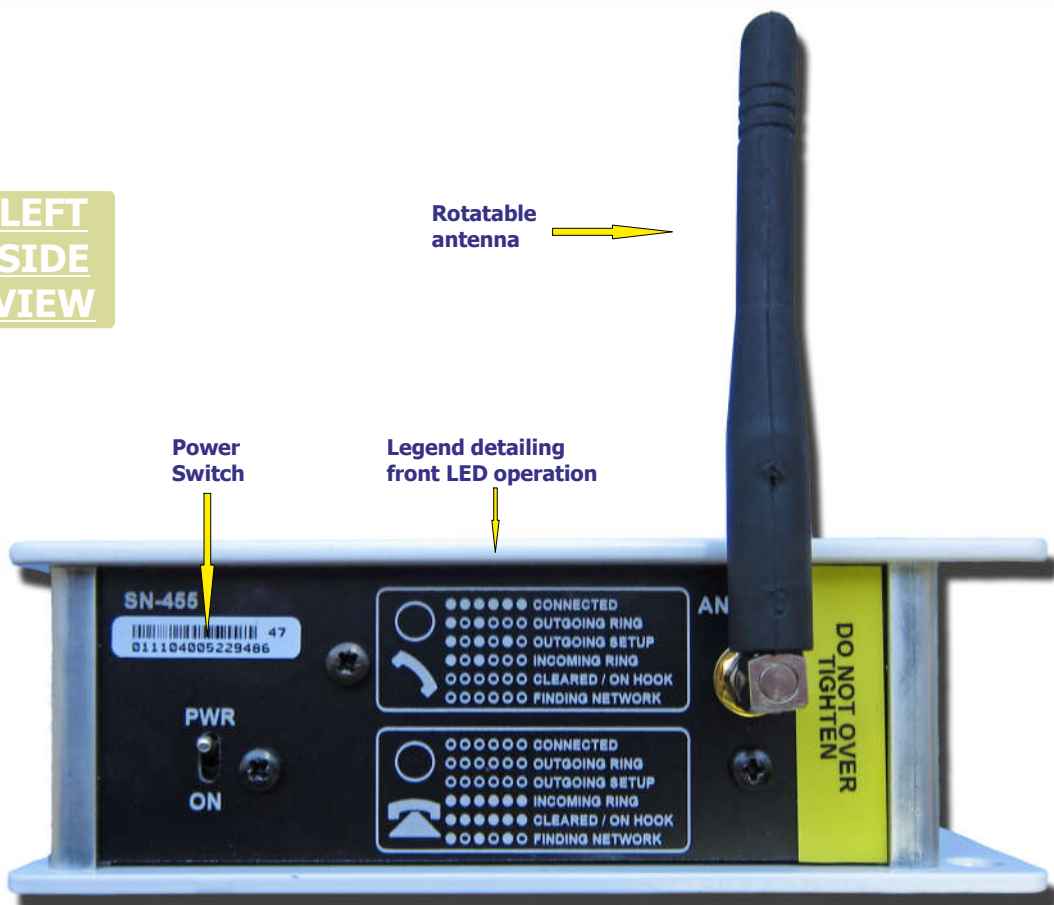


**GS-MPI004
Images**

**FRONT
VIEW**



**LEFT
SIDE
VIEW**



GS-MPI004
Detail Images

**REAR
VIEW**



**RIGHT
SIDE
VIEW**

Headphone socket
accepts 6.35mm jack

Mic input
on XLR

Mic/line
input select

Line input/output
sockets on XLR



VERSIONS

GS-MPI004
GS-MPI005
GS-MPI006
GS-MPIFW

Portable belt pack style
19 inch 1RU including 1 x GSM telephone
19 inch 1RU including 1 x GSM telephone & twin G722/G711 ISDN codec
19 inch 1RU including 1 x GSM telephone and 2 x IFB four wire circuits

AUDIO SPECIFICATIONS - ALL UNITS

LINE IN / OUT CONNECTORS

LINE INPUT LEVEL

Neutrik XLRs

INPUT GAIN CONTROL

0dB

HEADROOM

+/- 10dB

OUTPUT LEVEL

26dB

OUTPUT GAIN CONTROL

0dB

MAX OUTPUT LEVEL (Line out with XLR)

+/- 10dB

HEADPHONE SOCKETS

+13dBu

HEADPHONE IMPEDANCE

6.35mm jack socket

200-2000 ohms

GSM SPECIFICATIONS

AUDIO FREQUENCY RESPONSE

Telephone networks provide 300Hz to 3.4 kHz audio bandwidth

QUAD BAND GSM FREQUENCIES

850 MHz, 1800 MHz, 1900 MHz

NETWORK

Will operate on any mobile phone network, with any SIM card

RF OUTPUT POWER

2 watts

AERIAL CONNECTOR TYPE

SMA

POWER

GS-MPI004

- BATTERIES

4 x AA cells. When 'low battery' LED flashes there is approx. 30 mins remaining
+9 to +12 volts. 2.5mm barrel connector, centre +ve

- EXTERNAL DC INPUT

GS-MPI005, GS-MPI006, GS-MPIFW

- INTERNAL SWITCH MODE POWER SUPPLY

100-240v 50-60 Hz

SPECIFIC SPECIFICATIONS - GS-MPI004 (PORTABLE GSM)

HEIGHT

45.7mm

WIDTH

148.6mm

DEPTH (Excluding Connectors)

138.4mm

MICROPHONE INPUT

Neutrik XLR

MIC INPUT LEVEL

-54 dB

SPECIFIC SPECIFICATIONS - GS-MPI005 (RACKMOUNT GSM)

HEIGHT

1RU

WIDTH

290mm (19")

DEPTH (Excluding Connectors)

258mm

SPECIFIC SPECIFICATIONS - GS-MPIFW (RACKMOUNT GSM WITH 4W)

HEIGHT

1RU

WIDTH

290mm (19")

DEPTH (Excluding Connectors)

208mm

FOUR WIRE CIRCUITS

2

SPECIFIC SPECIFICATIONS - GS-MPI006 (RACKMOUNT GSM WITH ISDN)

HEIGHT

1RU

WIDTH

290mm (19")

DEPTH (Excluding Connectors)

256mm

ISDN

Twin G722 and G711

ISDN DIALLING

DTMF via phone or external remote

REMOTE

RS232

BUS TYPE

S Connector

ACCESSORIES

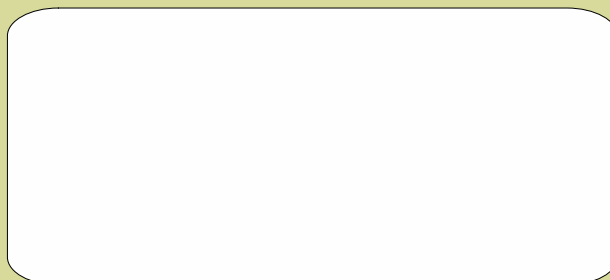
EXTERNAL AERIAL

T-bar

PLUG TOP POWER SUPPLY FOR GS-MPI004

UK 3 pin plug 100-240v 50-60 Hz

Your local dealer:



E & OE

Glensound

6 Brooks Place, Maidstone, Kent, ME14 1HE. UK

Tel: +44 (0) 1622 753662

Email: sales@glensound.com www.glensound.com

sales@glensound.com