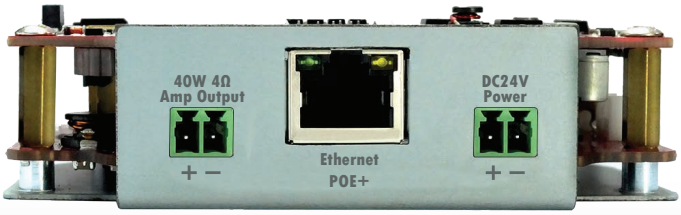
TERRACOM™

FULL RANGE IP SPEAKERS
FOR PAGING & HANDS-FREE INTERCOM

IPSM-1C40 IP SPEAKER MODULE, 1 CHANNEL, 40W
IPSM-1C40M IP SPEAKER MODULE, 1 CHANNEL, 40W WITH MICROPHONE INPUT

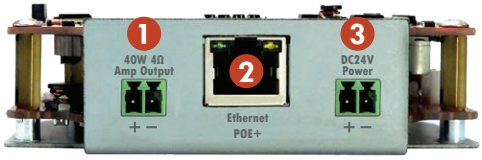


The IPSM module is equipped with 1 channel 40W Class-D amp board into the 4 ohm loudspeaker with PoE+ power (and/or 24VDC power supply if POE+ is not available). With Power over Ethernet (PoE+), both audio control and power can be flowed over the standard female RJ45 Ethernet connector, giving a cost effective way to used as the SIP endpoint of paging, intercom, mass notification system and minimizing the number of cables.

The IPSM-1C40 is designed to embed in the speaker. Both hardwares are applicable for TERRACOM's full range IP speakers. To fulfill hands-free intercom and monitoring, the IPSM-1C40M is equipped with a built-in microphone interface. The YMC0101-004 mic capsule could be connected to this microphone interface.

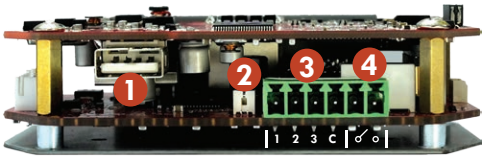
The IPSM have 3 control inputs for level control and source selection using the RAC 5/8 controller, 1 contact output for triggering events via TerraManager. To configure, control, monitor the IP speakers in real-time, this can be easily done through your favorite web browser interface, making the management even the most complex environments simpler than ever. The remarkable features include event management, volume control, paging, intercom, music streaming, routing, logic control, 3rd party control, DSP control, monitoring etc..

FRONT PANEL



1. 40W x 1CH amp output (4ohm load speaker)
2. Ethernet POE+ port
3. 24VDC power input

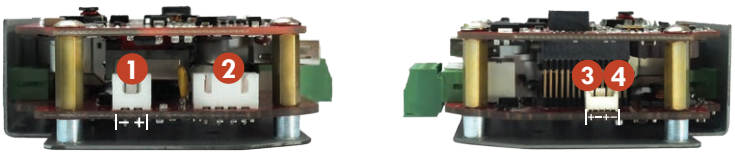
REAR PANEL



1. USB interface (function reserved)
2. Microphone interface:
   The microphone is available for IPSM-1C40M module only.
   The YMC0101-004 mic capsule could be connected to this microphone interface.
3. Three logic control inputs
4. One contact output

1. LED strobe light interface (function reserved)
2. RS232 interface (function reserved)
3. Power LED interface (+-)
4. Status LED interface (+-)

SIDE PANEL



IPSM-1C40
IPSM-1C40M

IP SPEAKER MODULE, 1 CHANNEL, 40W
IP SPEAKER MODULE, 1 CHANNEL, 40W WITH MICROPHONE INPUT BUILT-IN

FEATURES

- Support PoE+ and/or connect to 24VDC power adapter (if PoE+ is not available)
- Standard RJ45 interface, PCB control and Class-D amp board
- Cost effective and simple installation with single cable deployment
- Easily configured, controlled, managed and monitored via web browser
- Microphone input built-in for hands-free duplex intercom (IPSM-1C40M)
- IP based for music streaming, routing, paging and control over LAN/WAN
- Full DSP includes AEC, NR, Ducker, AGC, PEQ, Hi/Low Pass, Compressor, Limiter etc..
- 3rd party control with TERRACOM system
- Support VoIP call via SIP protocol
- Support audio codec G.711, G.722, WAV and MP3
- 3 control inputs for level control and source selection using the RAC 5/8 controller, and 1 relay contact output

TECHNICAL SPECIFICATIONS

ELECTRICAL
- Power over Ethernet (POE+), IEEE802.3af, class 3
- DC power input: 24 VDC (18 ~ 24 VDC)
- Minimum power supply: 2A

AUDIO CHARACTERISTICS (AMPLIFIED OUTPUT)
- Rated output power: 40W x 1CH (Class-D)
- Frequency response: 50 Hz ~ 20 kHz (±3 dB) @ 0 dBu
- THD+N@20W/40W: 1% (50 ~ 20 kHz @ full power)
- SNR: > 85 dB

AUDIO CHARACTERISTICS (MIC INPUT)
- Phantom power: 2 VDC
- Frequency response: 50 Hz ~ 20 kHz (±1 dB) @ 0 dBu
- Input impedance (unbalanced): 1k ohm
- EIN (Equivalent Input Noise): < -90 dBra @ 14 dB gain
- THD+N: 0.1% (50 ~ 20 kHz @ 14 dBu gain)

AUDIO CHARACTERISTICS (YMC0101-004 MIC CAPSULE)
- Directional characteristic: Omni-directional
- Sensitivity: -38 (±2) dBu @ 1 kHz (0 dBu=1VPa)
- Impedance: 2.2k Ω (max.)
- S/N ratio (a weighted network): 62 dB
- Maximum SPL: 110 dB
- Frequency response: 50 Hz ~ 20 kHz (±3 dB) @ 0 dBu

CONTROL INPUTS
- Type: Euro-block terminal
- Mode (analog/TTL): max. 3.3 VDC
- TTL logic input (max.): HIGH active 3.3 VDC, LOW active 1.2 VDC

INTERCONNECTION
- Female RJ45 socket, CAT5/6 cables
- Max. cable length: 100m

SUPPORTED PROTOCOLS
- SIP 2.0 (peer and proxy)
- IETF SIP (RFC3261)
- IETF IGMP version 2 (RFC2236)
- IETF RTP(RFC1889)

CONTACT OUTPUT
- Type: Euro-block terminal
- Default status: OPEN (N.O.)
- Maximum voltage: 100 VDC
- Maximum current: 0.5A

AUDIO
- Audio compression: G.711, G.722, Wav, MP3

NETWORK
- 10/100 Mbps Base TX Ethernet RJ45
- Manual or Dynamic Host Configuration Protocol (DHCP) IP address setup
- Time and date synchronization using NTP

MECHANICAL
- Dimensions (W x H x D): 98 x 35 x 70 mm (3.8 x 1.37 x 2.75 inch)
- Weight: 0.53 kg (0.66 lbs)

ENVIRONMENTAL
- Operating temperature: -5 °C ~ +55 °C (+ 23 °F ~ +131 °F)
- Storage temperature: -40 °C ~ +70 °C (-40 °F ~ +158 °F)
- Relative humidity: 20% to 95%
- Air pressure: 600 to 1100 hPa
- Heat dissipation: 6.82 BTU/hr

CERTIFICATIONS

Europe - CE/EMC	EN 55032
	EN 55035
	EN 61000-3-2
	EN 61000-3-3

ORDERING INFORMATION
- IPSM-1C40: IP Speaker Module/1 channel/40W
- IPSM-1C40M: IP Speaker Module/1 channel/40W w/ mic input
- YMC0101-004: Mic Capsule w/40cm lead & connector for IPSM-1C40M

* Note: IPSM-1C40M is not shipped with the mic capsule, please order YMC0101-004 mic capsule if necessary.

* NOTICE (MICROPHONE CAPSULE)
We recommend to use a temperature controlled soldering iron (360 degree) and the welding time must less than 3 seconds to keep contact of the iron to the microphone capsule as brief as possible.