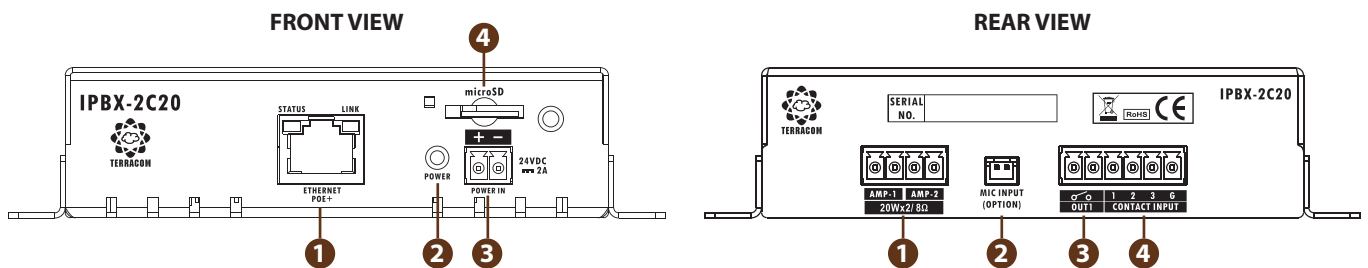


**IPBX-2C20**  
**IPBX-2C20M**
**IP SPEAKER BOX, 2 CHANNEL, 20W**  
**IP SPEAKER BOX, 2 CHANNEL, 20W W/MIC**


IPBX-2C20 is equipped with 2 channels in 20W with 8ohm loudspeaker, or be bridged to 1 channel in 40W with 4 ohm loudspeaker. It supports PoE+ power and user can order an external power adapter to provide greater power to the IP speaker (If PoE+ is not available 24VDC will supply power). With Power over Ethernet (PoE+), 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 IPBX-2C20 is with an outside box as an external connection for general speakers. To fulfill hands-free intercom and monitoring, the IPISM-2C20M/IPBX-2C20M is equipped with a built-in microphone interface. The YMC0101-005 mic capsule could be connected to this microphone interface.

The IPISM/IPBX 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..



- 1 Ethernet port with PoE+ (25W) power
- 2 Power LED indicator
- 3 Optional external power input (24 ~ 27 VDC), PSU65-27 (65W) and PTR-2415 (36W) recommend
- 4 Micro SD Card interface (function reserved)

- 1 Amp output 20W x 2CH for 8 ohm speaker, can be bridged to 40W x 1CH for 4 ohm speaker
- 2 Mic input for IPBX-2C20M, optional mic capsule with lead YMC0101-005 recommended
- 3 1 relay contact output can be programmed to control an external device
- 4 3 programmable contact inputs are controlled by external remotes such as source selector and volume control

**IPBX-2C20**  
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**FEATURES**


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- Support PoE+ and PoE power
- 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 (IPBX-2C20M)
- IP based for music streaming, routing, paging and control over LAN/WAN
- Full DSP includes Ducker, AGC, PEQ, Hi/Low Pass, Compressor, Limiter, etc.
- TERRACOM system can control other system or be controlled (command string) by a 3rd party
- Support VoIP call via SIP protocol
- Support audio codec G.711u, G.711a, G.722, PCM16K and MP3
- 3 control inputs for level control, source selection and 1 relay contact output

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**TECHNICAL SPECIFICATIONS**


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**ELECTRICAL**

- Power over Ethernet (POE+)
- DC power input: 21 ~ 27.5 VDC
- Power consumption
  - PoE+: 25W max.
  - External power: 50W max.
  - Stand-by: 3W

**AUDIO CHARACTERISTICS (AMPLIFIED OUTPUT)**

- Rated output power: 20W x 2CH
- Frequency response: 20 Hz ~ 20 kHz ( $\pm 3$  dB) @ 0 dBu
- THD+N @ full power: < 0.5% @ 1 kHz
- SNR: 85 dB

**AUDIO CHARACTERISTICS (MIC INPUT)**

- Phantom power: 2.5V
- Frequency response: 20 Hz ~ 20 kHz ( $\pm 1$  dB) @ 0 dBu
- Input impedance (balanced): 50k ohm
- EIN (Equivalent Input Noise): < -90 dBra @ 0 dB gain
- THD+N: 0.1%

**AUDIO CHARACTERISTICS (YMC0101-004 MIC CAPSULE)**

- Directional characteristic: Omni-directional
- Sensitivity: -42 ( $\pm 2$ ) dBu @ 1 kHz (0 dBu=1Vpa)
- Impedance: 2.2k  $\Omega$  (max.)
- S/N ratio (A-weighted): 62 dB
- Maximum SPL: 110 dB
- Frequency response: 50 Hz ~ 20 kHz ( $\pm 3$  dB) @ 0 dBu

**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**

- Default status: OPEN (N.O.)
- Maximum voltage: 60V
- 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): 105 x 29 x 60 mm (4.1x 1.1 x 2.4 inch)
- Weight: 231g (0.51 lbs)

**ENVIRONMENTAL**

- Operating temperature: -5 °C ~ +50 °C (+ 23 °F ~ +122 °F)
- Storage temperature: -40 °C ~ +70 °C (-40 °F ~ +158 °F)
- Relative humidity: 20% to 95%
- Air pressure: 600 to 1100 hPa
- Heat dissipation: 34 BTU/hr @ 20W x 2CH

**CERTIFICATIONS**

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

**ORDERING INFORMATION**

IPBX-2C20	IP Speaker Box/ 2 channel/ 20W
IPBX-2C20M	IP Speaker Box/ 2 channel/ 20W w/ mic input
IPBX-2C20L	IP Speaker Box/ 2 channel/ 20W w/o PoE+
IPBX-2C20ML	IP Speaker Box/ 2 channel/ 20W w/ mic input w/o PoE+

- YMC0101-005: Mic Capsule w/40cm lead & connector for IPBX-2C20M and IPBX-2C20ML.

\* Note: IPBX-2C20M and IPBX-2C20ML are not shipped with the mic capsule, please order YMC0101-005 mic capsule if necessary.

**\* NOTICE (MICROPHONE CAPSULE)**

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

**\* NOTICE (EXTERNAL POWER ADAPTER)**

All IP speaker boxes are not shipped with the external power adapter, and please order "PSU65-27" which can supply maximum 65W power to IP speaker if necessary.