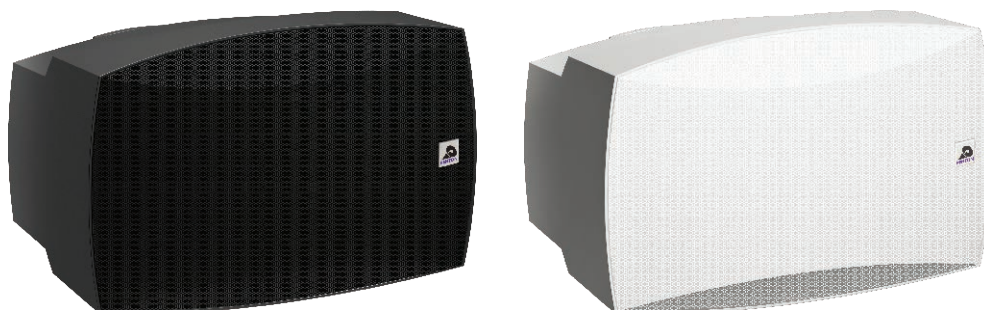


FORMAT

PROFESSIONAL CABINET LOUDSPEAKER



The FORMAT series, FORMAT 20 and FORMAT 40, is designed with very flat frequency response in mind. The coaxial cabinet loudspeaker can reproduce bright midrange, silk-like, high frequencies with an extended Q bass sound.

The FORMAT is designed not only for excellent audio quality in low-Z or 70 V/100 V line systems, but to sound equally good with streaming audio over IP. The IP version of the FORMAT features an IP amplifier module with 20w/40w output, a high sensitivity microphone, and can be used to stream music as well as intercom over SIP networks. The IP amplifier module can be powered from a PoE/PoE+ network switch or an external AC/DC power adaptor. The module features abundant audio DSP functions to further enhance the sound in the specific environment and functions over SIP and OnVIF for easy integration with Video CCTV system platforms.

The high sensitivity microphone with the REPIDO™ AEC algorithm and Active Noise Reduction (ANR) enables hands-free long-distance intercom over IP. With the optional RAC 5/8 controller, using the 3 control inputs, users can select various audio sources from the network as well as adjust speaker volume.

With excellent audio quality, voice clarity, and quick and easy installation, FORMAT combines the functions of background music, intercom, and EVAC paging in one speaker. It is suitable for applications including shops, schools, restaurants, hotels, public houses, and offices.

VERSIONS

- Low-Z : Designed with very flat frequency response, can reproduce nature sound with an extended Q bass sound in 6 ohm drivers
- 70 V/100 V line: With low-z version audio quality, integrating 70 V or 100 V line transformers for high voltage PA/VA sound system
- IP over network: With low-z version audio quality, integrating a POE+ IP DSP amplifier module, can play audio from IP network
- 70 V/100 V line and IP over network: With low-z version audio quality, integrating 70 V/100 V line transformation and a PoE+ IP DSP amplifier module, can play audio from IP network or 70 V/100 V line PA/VA sound system with auto-detection and switch

FEATURES

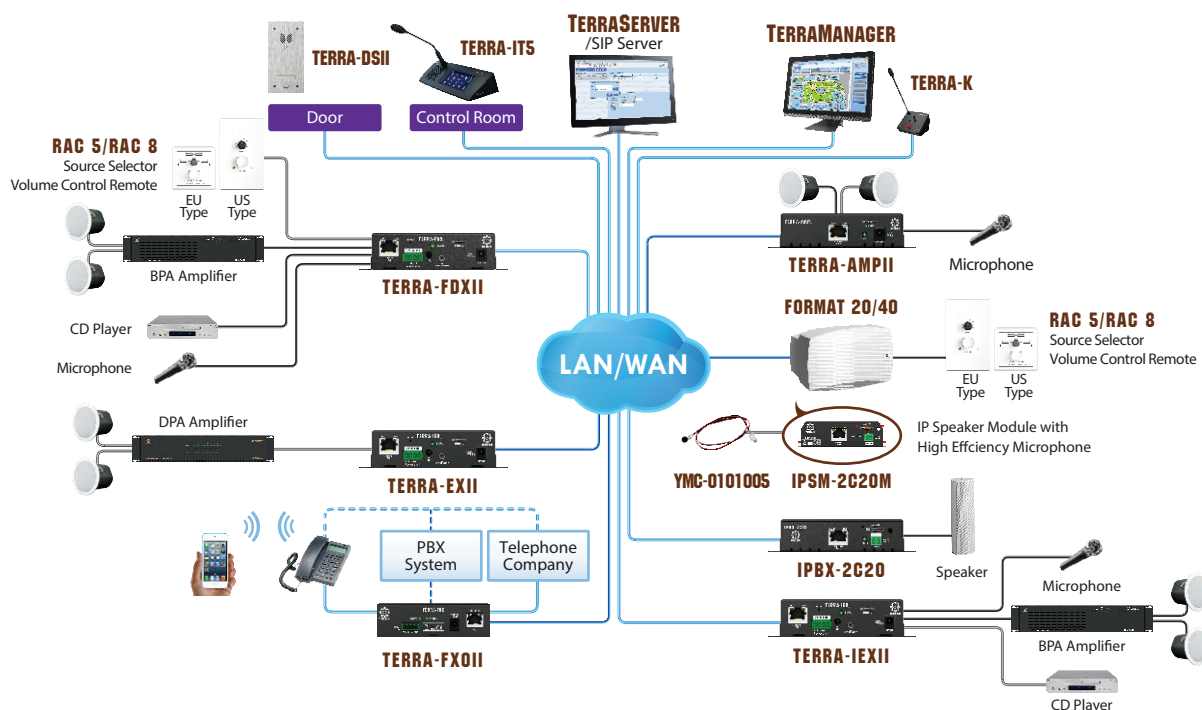
- 70 V/100 V line transformer integrated for PA/VA sound system or Low-Z in 6 ohms
- 20 W x 2 or 40 W high efficiency Class-D audio amplifier built-in IP DSP amplifier module
- Music steaming, routing, paging and control over local area network or internet
- Optional high sensitivity microphone and input module for hand-free duplex intrecom
- Audio DSP includes AEC, ANR and AGC for intercom, also PEQ Hi/Lo pass filters, compressor/Limiter and matrix etc., to enhance audio preference
- Supports audio codecs G.711 ulaw, G.711 alaw, G722, PCM16K, G726-32, G727-32, G729, MP3
- Internal memory (200M) plus micro SD card of up to 512 GB available for message or music files storage
- High Cyber security with AES 128/256 and TLS digitally encrypted over IP network
- 3 control inputs is designed for volume control and audio CCTV VMS platform and 3rd party control over IP network
- Supports SIP client for IP-PBX, Onvif for video CCTC VMS platform and 3rd party control over IP network
- Cost effective of easy installation with one CAT5/6 net cable. Convenient management, configure, control, BGM/Paging streaming and status monitoring via standard IP network
- Supports PoE/PoE+ power or powered from an optional external AC/DC with 24 ~ 27 VDC power adaptor



FORMAT

PROFESSIONAL CABINET LOUDSPEAKER

SYSTEM DIAGRAM



TECHNICAL SPECIFICATIONS

ELECTRICAL

- Power handling
 - FORMAT 20: Rated 20 W, max 35 W
 - FORMAT 40: Rated 40 W, max 60 W
- Tappings 70 or 100 volt line
 - FORMAT 20: 20/10/5/2.5 W
 - FORMAT 40: 40/20/10/5 W
- Transformer impedance
 - FORMAT 20
 - 70V: 250/500/1k/2k ohms
 - 100V: 500/1k/2k/4k ohms
 - FORMAT 40
 - 70V: 125/250/500/1k ohms
 - 100V: 250/500/1k/2k ohms
- High/low driver impedance
 - FORMAT 20: 5.6 ohms
 - FORMAT 40: 6.4 ohms
- Effective frequency range (BSEN60268-5)
 - FORMAT 20: 76 Hz (fo) ~ 20k Hz
 - FORMAT 40: 55 Hz (fo) ~ 20k Hz
- S.P.L. @ 1m, 1 watt, dB, test signal bandwidth 100 Hz ~ 10k Hz
 - FORMAT 20: 85 dB
 - FORMAT 40: 87 dB
- S.P.L. @ 1m, full power, test signal bandwidth 100 Hz ~ 10k Hz
 - FORMAT 20: 98 dB
 - FORMAT 40: 103 dB

MECHANICAL

- Dimensions (W x H x D)
 - FORMAT 20: 265 x 175 x 160 mm
 - FORMAT 40: 365 x 240 x 210 mm
- Weight
 - FORMAT 20: 2.4 kgs
 - FORMAT 40: 3.4 kgs
- Colour (unless specified): White/Black
- Materials: High impact moduled ABS housing with UV inhibitor
- Mounting: Die-cast aluminum swivel arm and fiber PP plastic

ENVIRONMENTAL

- Min/max amb temp: -25 °C ~ +70 °C (+ 23 °F ~ +122 °F)
- Relative humidity: ≤ 95 %

IP SPEAKER MODULE

AUDIO CHARACTERISTICS (AMPLIFIED OUTPUT)

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

AUDIO CHARACTERISTICS (MIC INPUT)

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

AUDIO CHARACTERISTICS (YMC0101-005 MIC CAPSULE)

- Directional characteristic: Omni-directional
- Sensitivity: -42 (±2) dBu @ 1k Hz (0 dBu=1VPa)
- Impedance: 2.2k (max.)
- S/N ratio (A-weighted): 60 dB
- Maximum SPL: 110 dB
- Frequency response: 50 Hz ~ 20k Hz (±3 dB) @ 0 dBu

SUPPORTED PROTOCOLS

- SIP 2.0 (peer and proxy)
- IETF SIP (RFC3261)
- IETF IGMP version 2 (RFC2236)
- IETF RTP (RFC1889)
- Switch requirements (minimum request)
- Transmission rate: 10/100M bps
- Communication mode: full-duplex

NETWORK

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



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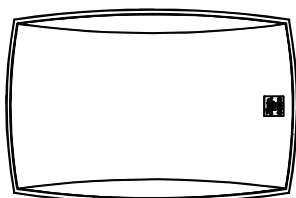
Can Pantiquet, 81 - 08100 Mollet Del Vallés - Barcelona, España
Tel: +35 (0)935 702 623 | www.ateis-europe.com | ateis.iberia@ateis.global



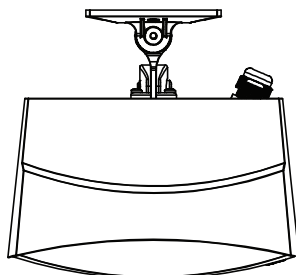
FORMAT

PROFESSIONAL CABINET LOUDSPEAKER

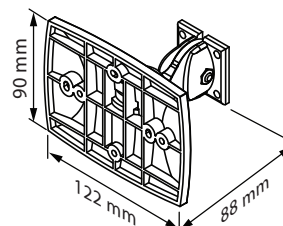
FRONT PANEL



TOP PANEL

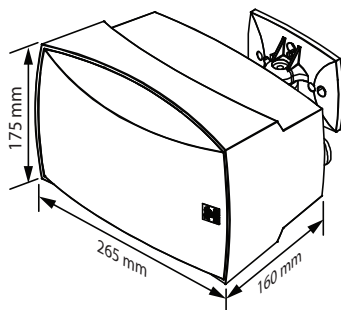


MOUNTING BRACKET

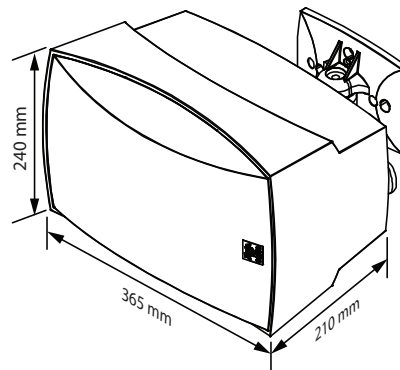


SIDE VIEW

FORMAT 20

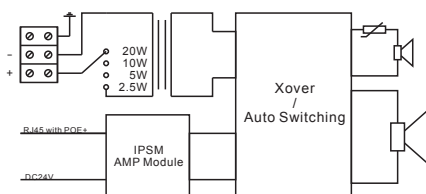


FORMAT 40

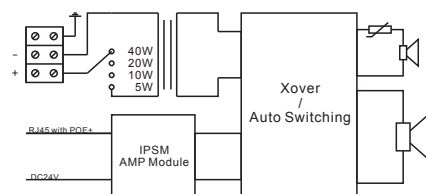


CIRCUIT DIAGRAM

FORMAT20/TB(W)-IPM



FORMAT40/TB(W)-IPM



FORMAT

PROFESSIONAL CABINET LOUDSPEAKER

WITH TRANSFORMER

CERTIFICATIONS AND APPROVALS

70 V line

FORMAT 20				
70 V	10 W	5 W	2.5 W	1.25 W
IMP.(Ω)	500	1K	2K	4K
FORMAT 40				
70 V	20 W	10 W	5 W	2.5 W
IMP.(Ω)	250	500	1K	2K

100 V line

FORMAT 20				
100 V	20 W	10 W	5 W	2.5 W
IMP.(Ω)	500	1K	2K	4K
FORMAT 40				
100 V	40 W	20 W	10 W	5 W
IMP.(Ω)	250	500	1K	2K

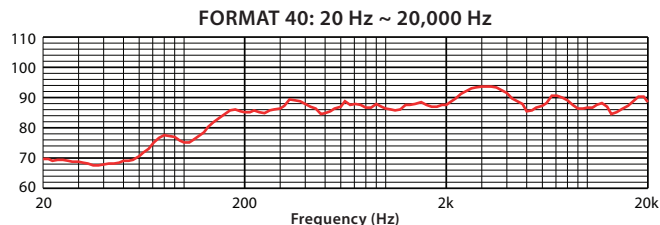
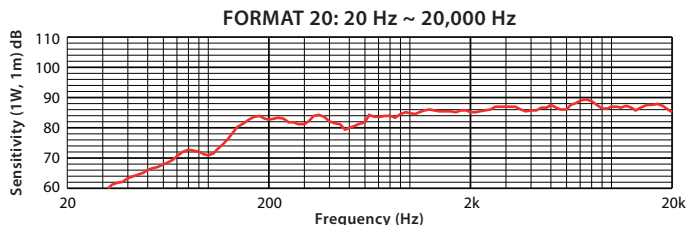
Emergency

All models	
Europe	Pending
UK	BS EN 54-24

Safety

With IP speaker module		
Europe	CE/EMI	EN 55032
Europe	CE/EMC	EN 61000-3-2 EN 61000-3-3 EN 55035
Europe	CE/LVD	EN 62368-1
Great Britain	UKCA	BS EN 55032 BS EN 61000-3-2 BS EN 61000-3-3 BS EN 55035
Northern Ireland	UKNI	BS EN 55032 BS EN 61000-3-2 BS EN 61000-3-3 BS EN 55035

EFFECTIVE FREQUENCY RANGE



Disclaimer: We reserve the right of changes and errors.

ORDERING INFORMATION

Model No.	Step 1	Step 2	Step 3	Step 4	Step 5	Description of Model
FORMAT	Driver Handling	Line Transformer	Colour	- IP Speaker Module	Microphone	Music Cabinet Co-Speaker
Driver Handling						
	20					Driver Handling 20 W
	40					Driver Handling 40 W
Line Transformer						
						IP Speaker Module Only
		L				Low Impedance Only*1
		/T				100 V Line
		/T7				70 V Line
Colour						
			B			Black
			W			White
IP Speaker Module						
						None
				IP		IP Speaker Module
Microphone						
						None
					M	Mic Input Module & Capsule

*1 If model number contain this option, it means this speaker is not include IP speaker module.



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