



MPAC128 Series Acoustic Imager



- 128 Microphone array
- Detection frequency up to 48 kHz
- Detection range up to 120 m
- 8 MP optical camera resolution
- 7" screen
- Intelligent Analytics
- Ultrasonic monitoring

DESCRIPTION

MPAC 128 Series: Cutting-Edge Gas Leak Detection

MPAC128: Locate gas leaks and partial discharge threats swiftly and precisely with Megger's MPAC128. Equipped with 128 sensors, this high-resolution acoustic imager enables clear visualisation of gas, pressure, and vacuum leaks, as well as electrical partial discharge from safe distances up to 120 meters away. With an IP54 rating, it ensures accurate targeting for repairs, preventing safety hazards, production disruptions, and losses, ultimately saving valuable time, energy, and resources.

The MPAC128 series also packs impressive reliability with the units ingenious self-check function, meticulously verifying internal components' integrity and guaranteeing flawless operation of the microphone array, providing unwavering performance day in, day out.

The MPAC128-ATEX is designed for hazardous Zone 2 areas, and provides ATEX-certified safety without compromising performance. Identifying gas, pressure, and vacuum leaks, as well as corona, arcing, and partial discharge faults up to 120 meters away, including challenging areas, this model ensures prompt action to restore safety and system integrity in finished products, process plants, and electrical installations.

FEATURES

- Detects multiple gas types and pressurised gas leaks with ease.
- Simple operation with only two parameters to set.
- Provides leak rate quantification for cost estimation.
- Phase Resolved Partial Discharge (PRPD) for discrimination between different types of partial discharge.
- Focus function reduces unwanted noise in noisy environments.
- Converts ultrasonic monitoring sounds to audible sounds for pinpointing leaks.
- Expandable storage for storing results, images, and videos on site.
- Easy update firmware to latest version via the USB-C memory stick or microSD card.
- Free Acoustic Analysis software.

With the MPAC128 series, experience unparalleled precision and efficiency in gas leak detection, aid maintenance planning and prevention of catastrophic events, ensuring safety and reliability in various industrial applications.

MPAC128 Series Acoustic Imager

- Detection frequency: 2 kHz to 48 kHz
- Detection range: 0.3 to 120 m
- Optical camera resolution: 8 megapixels
- Leak detection rate:
 - 1 m 7 bar 0.37 ml/s
 - 10 m 7 bar 0.7 ml/s
- Microphones in array: 128
- Sound image field of view
 - Horizontal: 62°
 - Vertical: 48°
- Meets IP54

SPECIFICATIONS

Ease Of Use	Intuitive user interface and touch screen
Trend Graphs	Frequency and dB scale
Cursor information	dB level reading at centre point of the image
Supported Languages	English, Dutch, French, Chinese, German, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish

Sensors

Microphone Array	128 channels MEMS microphone
Frequency Band	2 kHz to 48 kHz
Dynamic Range	0.5 dB to 12 dB (user adjustable)

Sound Image

Field of View (FOV)	Horizontal: 62° Vertical: 48°
----------------------------	----------------------------------

Nominal Frame Rate	25 fps (min) Note: frames per second is a measure of how quickly the image on the screen is refreshed each second.
---------------------------	---

Test Sound Pressure Level Range	25.7 dBA to 132.5 dBA
--	-----------------------

Acoustic measurements

Detect distances	0.3 m to 120 m
Leak detection rate	1 m 7 bar 0.37 ml/s 10 m 7 bar 0.7 ml/s

Number of digits	24-bit
-------------------------	--------

Auto max/min dB gain	User-selectable, minimum test bandwidth 1 kHz
-----------------------------	---

Camera

Camera Focal Length	3.04 mm fixed focal length
----------------------------	----------------------------

Camera Image Field of View (FOV)	Horizontal: 62° Vertical: 48°
---	----------------------------------

Saved Picture Zoom Resolution	Manual 8 megapixels
--------------------------------------	------------------------

Display

Resolution	1024 x 600
-------------------	------------

Size	7 inches
-------------	----------

Brightness	Adjustable
-------------------	------------

Touchscreen	Capacitive touch screen
--------------------	-------------------------

Standard palettes	Grayscale, Ironbow, Rainbow
--------------------------	-----------------------------

Storage

Internal Storage	8 GB Storage capacity subject to change based on software version
-------------------------	--

Image Format	JPG
---------------------	-----

Audio Format	WAV
---------------------	-----

Video Format	mp4
---------------------	-----

Video Length	5 min
---------------------	-------

Digital Export	microSD card/USB-C memory stick
-----------------------	---------------------------------

Battery

Battery Capacity	6600 mAh, 7.2 V Rechargeable Li-ion
-------------------------	-------------------------------------

Battery Life	~ 4 hours under full load state
---------------------	---------------------------------

Charge	USB Type-C port Output: USB-C 5.0 V 3.0 A.
---------------	---

Rated input: 100 240 VAC, 50/60 Hz, 1.2 A

Power Consumption	29 W max
--------------------------	----------

Energy management	User selectable Sleep/Auto power off
--------------------------	--------------------------------------

Environmental

Operating Temperature	-20 °C to +50 °C
------------------------------	------------------

Relative Humidity	10% to 95% (no condensation)
--------------------------	------------------------------

Storage Temperature	-20 °C to +60 °C
----------------------------	------------------

Charging Temperature	10 °C to +45 °C
-----------------------------	-----------------

Restriction of Hazardous Substances (RoHS) Compliant	Yes
---	-----

Mechanical

Colours	MPAC128: Grey, Black and White MPAC128-ATEX: Grey, Black and Red
----------------	---

Size	272 x 174 x 42 mm
-------------	-------------------

Weight	1.7 kg
---------------	--------

Ingress Protection (IP)	IP54
--------------------------------	------

Warranty	2 years
-----------------	---------

MPAC128 Series

Acoustic Imager

Safety

General Safety IEC 61010-1

Electromagnetic Compatibility (EMC) International

IEC 61326-1: Portable
Electromagnetic Environment
IEC 61326-2-2
CISPR 11: Group 1, Class A

ATEX

IEC 60079-0, IEC 60079-11
II 3G Ex ic IIC T5 Gc

Software

Report types

Gas/Electricity, ISO 50001-compliant

Analysis

Waveform, spectrum, spectrogram,
leakage assessment, discharge type
discrimination

ORDERING INFORMATION

Description	Part number	Description	Part number
MPAC 128-ATEX acoustic imaging camera	1015-885	Included accessories	
MPAC 128 acoustic imaging camera	1015-886	Hand straps	
		Shoulder strap	
		Universal mains charger	
		USB-C charge cable	
		Headphone	
		Protective box	
		8 GB microSD card	
		USB-A microSD card reader	
		8 GB USB-C/USB-A memory stick	
		Cleaning tool	

SALES OFFICE

Megger Limited
Archcliffe Road Dover
CT17 9EN England
T. +44 (0) 1304 502101
E. UKsales@megger.com

MPAC128-MPAC128ATEX_DS_en_V01

www.megger.com
ISO 9001
The word 'Megger' is a registered trademark

Megger®