

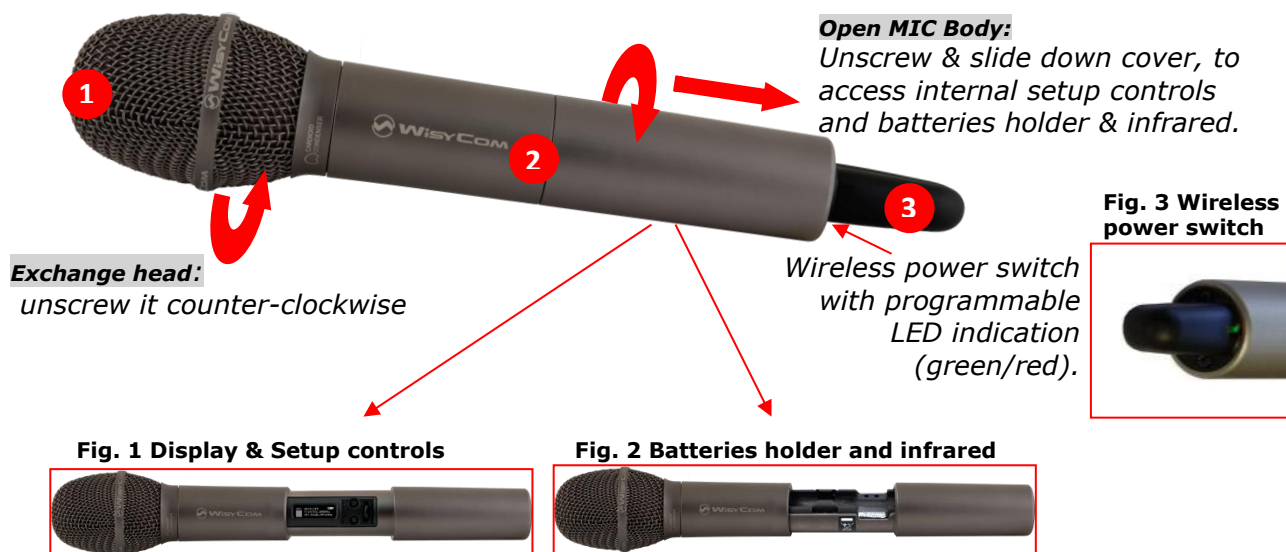
## Main Features

- Up to **232 MHz bandwidth** in 470/952 MHz range(\*)
- Enhanced robustness against intermodulation and antenna performances thanks to special "intermodulation cancellation" circuit and additional circulator (optional)
- Thin and ergonomics body design
- Ultra-light and tough aluminum alloy body
- Software switchable companding systems:
  - ENR (noise optimized)
  - ENC (voice optimized)
- Battery:
  - 2 AA Alkaline, rechargeable NiMH or Lithium with quick release system
- Autonomy: about 11h (50mW with Alk. batteries)  
more 14h (10mW with Alk. batteries)
- Infrared interface
- Easy and quick to setup thru an OLED display
- 1 joggle selectors and 4 quick setup buttons (level/channel adjustment)
- Available also with MCM type premium head (DPA/Schoeps/Milab/Audio-technica)



## General Description

MTH400 is a handheld transmitter especially designed for professional wireless microphone applications. It is very easy and quick to use thanks to OLED display and 1 joggle selector and 2 buttons for straight setup of gain and channel. MTH400 benefits also of the latest WisycOM RF technology, it has been especially designed for robustness against noise and self-interference thanks to a special "intermodulation cancellation" circuit (available also with the RF circulator option).



## TECHNICAL SPECIFICATIONS

<b>Switchable channels</b>	2400 allocated by 40 groups of 60 channels (in specific frequency range), quickly selectable with dedicated buttons
<b>Switching window</b>	Up to 232 MHz, depending on band (see <i>Variants</i> below)
<b>Frequencies</b>	Quartz PLL frequency synthesizer circuit (25 kHz step)
<b>Frequency stability</b>	▪ $\pm 2,5$ ppm (in the rated temperature range)
<b>Temperature range</b>	-10 ÷ +55 °C
<b>Max RF power</b>	▪ 10mW (ERP) (to respect some local norm) ▪ 50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) ▪ 100 mW (ERP) (note: in some countries high power can be disabled, for local norm!)
<b>Spurious emissions</b>	< 2 nW
<b>Modulation</b>	wideband FM, with pre-emphasis
<b>Nominal deviation</b>	$\pm 40$ kHz (Peak deviation = $\pm 56$ kHz)
<b>Telemetry feature</b>	MTH300 transmits also a digitally modulated sub-carrier, suitable for: ▪ <i>tone-squelch operating</i> ▪ <i>remote battery monitoring</i> ▪ <i>optional PTT (push to talk) operation</i>
<b>AF input connection</b>	Directly interchangeable microphone-heads
<b>AF input level</b>	60 dBu adjustable range from -54 to +6 dBu at peak deviation (1 kHz), adjustable in 1 dB steps
<b>Max. input level</b>	+6 dBu
<b>Max sound pressure</b>	150 dB SPL (0,5% THD), with MCM301/MCM302/MCM303/MCM304/MCM305 condenser-heads
<b>Noise-Reduction</b>	ENR (Wisyscom Extended-NR), with independent Attack- and Recovery-time, noise optimized ENC (Wisyscom Extended-NC), with independent Attack- and Recovery-time, voice optimized & with reduced pre-emphasys
<b>AF bandwidth</b>	45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB)
<b>Distortion</b>	< 0.3 % (0.15 % typ.)
<b>Signal-to-noise ratio</b>	typ. 115 dB (A) <sub>rms</sub> with 40kHz deviation typ. 121 dB (A) <sub>rms</sub> with 56kHz deviation
<b>Led</b>	Led indication with bicolor led (red & green) on wireless power switch: ▪ Wireless transmission status: <i>GREEN</i> on/off ▪ Battery lifetime status: <i>GREEN</i> - <u>steady</u> (> 25%) - <u>slowly blinking</u> (< 25%) - <u>quickly blinking</u> (<12%) ▪ Modulation peek (if activated): <i>RED</i> ▪ Ptt status: <i>RED</i> if active
<b>Display</b>	High contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 <u>bars</u> (100%-87%-75%-63%-50%-38%-25%) and " <u>empty bar</u> " quickly blinking (12% remaining)
<b>Power supply</b>	2 AA size cell (Alkaline, rechargeable NiMH or Lithium)
<b>Battery life (alkaline)</b>	approx. 10 hours @ 50mW continuous working; up to 14 hours @ 10mW
<b>Dimensions</b>	⇒ body max. diameter 33 mm (without microphone-head) ⇒ total length 183 mm (without microphone-head)
<b>Weight</b>	Approx. 300g, including battery and MCM3xx (condenser) mic-head ( approx. 260g batteries excluded)

**Note:** The above technical specifications refer to the MTH 400 "transmitter" section. The acoustic specs are relevant to the microphone-head used.

*For the commercial code, see in the Variants area of the Products on our website*

### POWER PROFILE & COUNTRY

#### FREQUENCY RANGE:

**EU** max power 50mW (Europe)  
**0W1 / EUX** max power 100Mw\* (Europe)  
**US** max power 50mW, limited to 698MHz (USA & Canada)  
**JP** max power 10mW, limited to 714MHz (Japan)  
**NZ** max power 100mW, limited to the range 502÷698MHz (New Zealand)  
**CN** max power 50mW (China)

\* MTH400-0W1/MTH400-EUX is not an SRD device, it requires specific authorization by your local frequency authority!  
The MTH 400 transmitter complies with ETSI 300 422.

### VARIANTS:

#### ▪ COLOR

**PV** body color titanium gray (ceramic coating)  
**BI** body color black (powder coating)

#### ▪ FREQUENCY RANGE

**B1** 470-640 MHz  
**B2** 566-798 MHz  
**B3** 510-698 MHz



**Before putting the device into operation, please observe the respective country-specific regulations!**