

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)



TITANIUM CERAMIC COATING



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.



Exchange head:
unscrew it counter-clockwise

Open MIC Body:

Unscrew & slide down cover, to access internal setup controls and batteries holder & infrared.

Wireless power switch with programmable LED indication (green/red).

Fig. 3 Wireless power switch



Fig. 1 Display & Setup controls



Fig. 2 Batteries holder and infrared



TECHNICAL SPECIFICATIONS

Switchable channels	2400 allocated by 40 groups of 60 channels (in specific frequency range), quickly selectable with dedicated buttons
Switching window	Up to 232 MHz, depending on band (see <i>Variants</i> below)
Frequencies	Quartz PLL frequency synthesizer circuit (25 kHz step)
Frequency stability	▪ ± 2,5 ppm (in the rated temperature range)
Temperature range	-10 ÷ +55 °C
Max RF power	▪ 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!)
Spurious emissions	< 2 nW
Modulation	wideband FM, with pre-emphasis
Nominal deviation	±40 kHz (Peak deviation = ±56 kHz)
Telemetry feature	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>
AF input connection	Directly interchangeable microphone-heads
AF input level	60 dBu adjustable range from -54 to +6 dBu at peak deviation (1 kHz), adjustable in 1 dB steps
Max. input level	+6 dBu
Max sound pressure	150 dB SPL (0,5% THD), with MCM301/MCM302/MCM303/MCM304/MCM305 condenser-heads
Noise-Reduction	ENR (Wisycom Extended-NR), with independent Attack- and Recovery-time, noise optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized & with reduced pre-emphasys
AF bandwidth	45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB)
Distortion	< 0.3 % (0.15 % typ.)
Signal-to-noise ratio	typ. 115 dB (A) _{rms} with 40kHz deviation typ. 121 dB (A) _{rms} with 56kHz deviation
Led	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
Display	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)
Power supply	2 AA size cell (Alkaline, rechargeable NiMH or Lithium)
Battery life (alkaline)	approx. 10 hours @ 50mW continuous working; up to 14 hours @ 10mW
Dimensions	⇒ body max. diameter 33 mm (without microphone-head) ⇒ total length 183 mm (without microphone-head)
Weight	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)

VARIANTS:

▪ COLOR

PV body color titanium gray (ceramic coating)

BL body color black (powder coating)

▪ FREQUENCY RANGE

B5 470-654 MHz

B2 566-798 MHz

B3 510-698 MHz

* 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.



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