

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

2400 allocated by 40 groups of 60 shappels (in specific frequency range)

AF input connection AF input level Biggs	Switchable channels	2400 allocated by 40 groups of 60 channels (in specific frequency range), quickly selectable with dedicated buttons		
Frequency stability Temperature range -10 ÷ +55 °C -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!) -50 mW (ERP) (note: in some countries high power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries high power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries high power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries high power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries high power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries high power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries high power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!) -50 mW (ERP) (note: in some countries middle power can be disabled50 mW (ERP) (note: in some countries middle power can be disabled50 mW (ERP) (note: in some countries middle pow	Switching window	Up to 232 MHz, depending on band (see <i>Variants</i> below)		
Temperature range -10 ÷ +55 °C -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 Modulation Wideband FM, with pre-emphasis Nominal deviation Telemetry feature -tone-squelch operating -remote battery monitoring -optional PTT (push to tan operation AF input level -finput level -finp	Frequencies	Quartz PLL frequency synthesizer circuit (25 kHz step)		
### According to the computation of the computation	Frequency stability	• ± 2,5 ppm (in the rated temperature range)		
Spurious emissions Canadian Canadi	Temperature range	-10 ÷ +55 °C		
Modulation wideband FM, with pre-emphasis Nominal deviation ±40 kHz (Peak deviation = ±56 kHz) MTH300 transmits also a digitally modulated sub-carrier, suitable for:	Max RF power	• 50 mW (ERP) (note: in some countries middle power can be disabled, for local norm!)		
Mominal deviation	Spurious emissions	< 2 nW		
Telemetry feature MTH300 transmits also a digitally modulated sub-carrier, suitable for: *tone-squelch operating *remote battery monitoring *optional PTT (push to tail operation) AF input connection AF input level Biteps Max. input level Max sound pressure Misse-Reduction AF in (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 Distortion Signal-to-noise ratio Led indication with bicolor led (red & green) on wireless power switch: *Wireless transmission status: GREEN on/off *Battery lifetime status: GREEN - steady (> 25%) - slowly blinking (< 25%) - guickly blinking (< 12%) *Modulation peek (if activated): RED Pit status: RED if active Bitery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and *empty bar" quickly blinking (12% remaining)	Modulation	wideband FM, with pre-emphasis		
Telemetry feature• tone-squelch operating• remote battery monitoring• optional PTT (push to tail operationAF input connectionDirectly interchangeable microphone-headsAF input level60 dBu adjustable range from -54 to +6 dBu at peak deviation (1 kHz), adjustable in 1 dB stepsMax. input level+6 dBuMax sound pressure150 dB SPL (0,5% THD), with MCM301/MCM302/MCM303/MCM304/MCM305 condenserheadsENR (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-emphasysAF bandwidth45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB)Distortion< 0.3 % (0.15 % typ.)Signal-to-noise ratio typ. 121 dB (A) _{rms} with 40kHz deviation typ. 121 dB (A) _{rms} with 56kHz deviationLed indication with bicolor led (red & green) on wireless power switch:• Wireless transmission status: GREEN on/off• Battery lifetime status: GREEN - steady (> 25%) - slowly blinking (< 12%) - slowly	Nominal deviation	±40 kHz (Peak deviation = ±56 kHz)		
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Max. input levelstepsMax sound pressure150 dB SPL (0,5% THD), with MCM301/MCM302/MCM303/MCM304/MCM305 condenserheadsNoise-ReductionENR (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-emphasysAF bandwidth45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB)Distortion< 0.3 % (0.15 % typ.)	AF input connection	Directly interchangeable microphone-heads		
Max sound pressure150 dB SPL (0,5% THD), with MCM301/MCM302/MCM303/MCM304/MCM305 condenserheadsNoise-ReductionENR (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-emphasysAF bandwidth45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB)Distortion< 0.3 % (0.15 % typ.)Signal-to-noise ratiotyp. 115 dB (A) _{rms} with 40kHz deviation typ. 121 dB (A) _{rms} with 56kHz deviationLed indication with bicolor led (red & green) on wireless power switch:• Wireless transmission status: GREEN on/off • Battery lifetime status: GREEN - steady (> 25%) - slowly blinking (< 25%) - quickly blinking (<12%) • Modulation peek (if activated): RED • Ptt status: RED if activeDisplayHigh contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)	AF input level	60 dBu adjustable range from -54 to +6 dBu at peak deviation (1 kHz), adjustable in 1 dB steps		
heads 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 Distortion Signal-to-noise ratio Led indication with bicolor led (red & green) on wireless power switch: Wireless transmission status: GREEN on/off Modulation peek (if activated): RED Pisplay heads ENR (Wisycom Extended-NR), with independent Attack- and Recovery-time, voice optimized & with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended FNC (Wisycom Extended FNC) with independent Attack- and Recovery-time, voice optimized ENC (Wisycom Extended FNC) with independent Attack- and Recovery-time, voice optimized ENC ENC ENC. Figure 12	Max. input level	+6 dBu		
Noise-Reductionoptimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice optimized & with reduced pre-emphasysAF bandwidth45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB)Distortion< 0.3 % (0.15 % typ.)Signal-to-noise ratiotyp. 115 dB (A) _{rms} with 40kHz deviation typ. 121 dB (A) _{rms} with 56kHz deviationLed indication with bicolor led (red & green) on wireless power switch: • Wireless transmission status: GREEN on/off • Battery lifetime status: GREEN - steady (> 25%) - slowly blinking (< 25%) - quickly blinking (<12%) • Ptt status: RED if activeDisplayHigh contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)	Max sound pressure			
Distortion Signal-to-noise ratio Led Wireless transmission status: GREEN on/off Modulation peek (if activated): RED Pisplay Pisplay Signal-to-noise ratio Led indication with bicolor led (red & green) on wireless power switch: Battery lifetime status: GREEN - steady (> 25%) - slowly blinking (< 25%) - quickly blinking (<12%) Ptt status: RED if active High contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)	Noise-Reduction	optimized ENC (Wisycom Extended-NC), with independent Attack- and Recovery-time, voice		
typ. 115 dB (A) _{rms} with 40kHz deviation typ. 121 dB (A) _{rms} with 56kHz deviation Led indication with bicolor led (red & green) on wireless power switch: • Wireless transmission status: GREEN on/off • Battery lifetime status: GREEN - steady (> 25%) - slowly blinking (< 25%) - quickly blinking (<12%) • Modulation peek (if activated): RED • Ptt status: RED if active High contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)	AF bandwidth	` ,		
typ. 121 dB (A) _{rms} with 56kHz deviation Led indication with bicolor led (red & green) on wireless power switch: • Wireless transmission status: GREEN on/off • Battery lifetime status: GREEN - steady (> 25%) - slowly blinking (< 25%) - quickly blinking (<12%) • Modulation peek (if activated): RED • Ptt status: RED if active High contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)	Distortion	< 0.3 % (0.15 % typ.)		
 Wireless transmission status: GREEN on/off	Signal-to-noise ratio			
- slowly blinking (< 25%) - quickly blinking (<12%) • Modulation peek (if activated): RED • Ptt status: RED if active High contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)		Led indication with bicolor led (red & green) on wir	eless power s	switch:
High contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) 8 step battery lifetime indication: 7 bars (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)	Led	•	•	,
Display 8 step battery lifetime indication: 7 <u>bars</u> (100%-87%-75%-63-50%-38%-25%) and "empty bar" quickly blinking (12% remaining)		Modulation peek (if activated): RED	Ptt status: RED) if active
Power supply 2 AA size cell (Alkaline, rechargeable NiMH or Lithium)	Display	8 step battery lifetime indication: 7 <u>bars</u> (100%-87%-75%-63-50%-38%-25%) and		
	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	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)	Dimensions			
Weight Approx. 300g, including battery and MCM3xx (condenser) mic-head (approx. 260g batteries excluded)	Weight			

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

<u>POWER PROFILE & COUNTRY</u> <u>FREQUENCY RANGE:</u>

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)

BL 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!

