



General Description

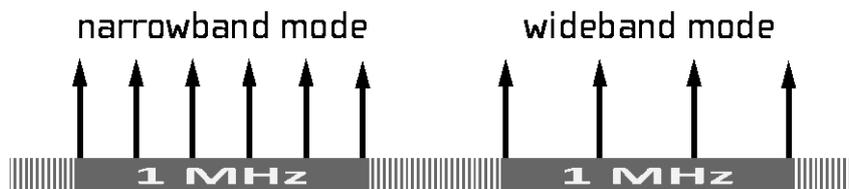
MTH410 is a handheld transmitter especially designed for professional wireless microphone applications. It is very easy and quick to use thanks to OLED display and 1 joggle selector and 2 buttons for straight setup of gain and channel.

It has been especially designed for robustness against noise and self-interference thanks to a dual power amplifier and a special "intermodulation cancellation" circuit. It is the only handheld transmitter able to change the modulation by software working as Wideband or Narrowband.

Main Features



- Up to 232 MHz bandwidth in 470/1260 MHz range
- **Dual power amplifier & phase canceling configuration for intermodulation free operation**, additional circulator (optional)
- **Wideband and Narrowband SW selectable**
- Intermodulation free allows **EQUALLY SPACES** frequency allocation:



Example for 8 MHz:

250KHz space → 33 Mic (narrowband), 350kHz space → 23 Mic

- User selectable multi-companing systems:
 - ENR (noise optimized)
 - ENC (voice optimized)
- Battery: 2 AA Alkaline, rechargeable NiMH or Lithium
Autonomy Alk.: > 10h @ 50mW,
> 7h @ 20L mW (intermod free operation)
- Thin and ergonomics body design
- Infrared interface for management and firmware update
- Easy and quick to setup thru an OLED display

Technical Data

| | | |
|------------------------------------|--|---|
| Frequency ranges | B7 option: 470 ÷ 663 MHz B3 option: 510 ÷ 698 MHz B2 option: 566 ÷ 798 MHz | B8 option: 940 ÷ 960 MHz B6 option: 960 ÷ 1160 MHz B9 option: 1240 ÷ 1260 MHz |
| Switchable channels | 2400 managed in 40 groups of 60 frequencies completely user customizable | |
| Switching-window | Up to 232 MHz, depending on band (see <i>Variants</i> below) | |
| Frequencies | Quartz PLL frequency synthesizer circuit (25 kHz step) | |
| Frequency error | ± 2.5 ppm, in the rated temperature range | |
| RF Power | switchable typ. 10 or 20 mW / 20L mW / 50 mW /100 mW note: in some countries high power can be disabled, for local norm! | |
| Modulation | Wideband/Narrowband FM, with pre-emphasis | |
| Nominal deviation | ±40 kHz Wideband, ±25 kHz Narrowband | |
| Peak deviation | ±56 kHz Wideband, ±35 kHz Narrowband | |
| Spurious emissions | < 2 nW | |
| Telemetry feature | TX transmits also a digitally modulated sub-carrier, suitable for: <ul style="list-style-type: none"> • tone-squelch operating • remote battery monitoring • optional PTT (push to talk) operation | |
| Noise Reduction system | 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) Wideband with LPF at 20kHz 45 Hz ÷ 17 KHz (3dB), 55 Hz ÷ 15 KHz (1dB) Narrowband with LPF at 15kHz | |
| Distortion | < 0.3 % (0.15 % typ.) | |
| SND/D ratio (Analogue) | typ. 115 dB (A)rms with 40 kHz deviation, typ. 121 dB (A)rms with 56 kHz deviation Wideband typ. 115 dB (A)rms with 25 kHz deviation, typ. 121 dB (A)rms with 35 kHz deviation Narrowband | |
| Audio input connector | directly interchangeable microphone-heads | |
| Audio input level | 60 dB adjustable range from -54 to +6 dBu at peak deviation (1 kHz), adj. in 1 dB steps | |
| Max input level | +6 dBu | |
| Max sound pressure | 150 dB SPL (0,5% THD), with MCM30x condenser-heads | |
| Managing interface | IrDA | |
| LED | bicolor led (red & green) on wireless power switch: <ul style="list-style-type: none"> • 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 | |
| Battery lifetime indication | 8 steps : 7 bars (100%-87%-75%-63%-50%-38%-25%) and "empty bar" quickly blinking (12% remaining) | |
| PTT function | with optional PTT accessory | |
| Display | High contrast OLED (Organic light-emitting diode) white display (128 x 32 pixels) | |
| Power supply | 2 AA size cell (Alkaline, rechargeable NiMH or Lithium) | |
| Power consumption | 230mA@3V average (display off, 100mW power) | |
| Battery life | with Alkaline: up to 14 hours @ 10mW, approx. 12 hours @ 20mW, approx. 10 hours @ 50mW , approx. 7 hours @ 100mW or @ 20mW Intermod Free "20L" level with Lithium: approx. 7 hours @ 100mW | |
| Temperature range | -10 ÷ +55 °C | |
| Dimensions | 183 x 33 mm (length x diameter) without microphone-head | |
| Weight | Approx. 150g only body, 280 g with head MCM306, 330g with head MCM306 and batteries | |

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

VARIANTS:

- POWER PROFILE & COUNTRY

FREQUENCY RANGE:

EU max power 50mW (Europe)

EUX max power 100mW* (Europe)

USX max power 100mW (USA & Canada)

JP max power 10/50mW (Japan)

- COLOR

BL body color black

PV body color titanium grey

- FREQUENCY RANGE

B7 470-663 MHz **B8** 940-960 MHz

B3 510-698 MHz **B6** 960-1160 MHz

B2 566-798 MHz **B9** 1240-1260 MHz

* MTH410-EUX is not an SRD device,

it requires specific authorization by your local frequency authority!



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