

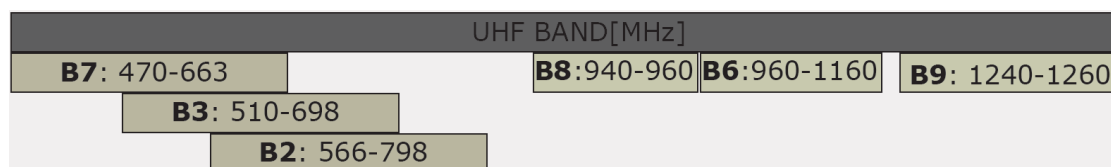


General Description

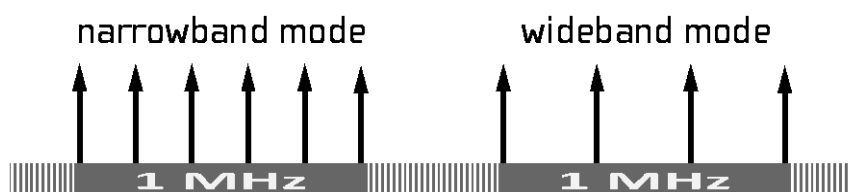
MTH410 is a handheld transmitter especially designed for professional wireless microphone applications. It is very easy and quick to use thanks to OLED display and 1 joggle selector and 2 buttons for straight setup of gain and channel.

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-companding 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: • tone-squelch operating • remote battery monitoring • optional PTT (push to talk) operation	
Noise Reduction system	ENR (Wiscom Extended-NR), with independent Attack- and Recovery-time, noise optimized ENC (Wiscom 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: • 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!