

## Main Features



- Up to 232 MHz bandwidth in 470/798 MHz range
- Enhanced robustness against self-interferences and antenna performances thru a proprietary "intermodulation cancellation" circuit
- Miniature design with flexible pcb (no connectors) for extended reliability
- User selectable companding systems: ENR (noise reduction) & ENC (voice quality optimized)
- Input dynamic extension with an integrated HW limiter (30 dB above peak)
- P48 phantom power for condenser microphones
- New white OLED display
- New XLR-3F connector with locking collar to ensuring an extremely tight noiseless fit!
- Infrared interface for management and firmware update
- Audio input circuitry with high linearity audio transformer
- Battery: 2 AA Alkaline, rechargeable NiMH or Lithium

## General Description

*"MTB40S is an extremely small and light plug-on transmitter especially designed for professional audio applications".*

Very easy and quick to use thanks to OLED display, MTB40S benefit also of the latest Wisycom RF technology along with an enhanced robustness against noise and inter-modulation.



## 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, (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>	<ul style="list-style-type: none"> <li>▪ 10 mW (ERP)</li> <li>▪ 50 mW (ERP)</li> <li>▪ [100 mW (ERP) (note: in some countries high power can be disabled, for local norm!)]</li> </ul>
<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>	MTB40S transmits also a digitally modulated sub-carrier, suitable for: <ul style="list-style-type: none"> <li>▪ <i>tone-squelch operating</i></li> <li>▪ <i>remote battery monitoring</i></li> </ul>
<b>AF input connector</b>	XLR-3F (transformer isolated) with locking collar and 48V phantom power
<b>AF input level</b>	100 dB adjustable range from -54 dBu (775 uV) to 46 dBu (15.5 V) at peak deviation (1 kHz), adjustable in 1 dB steps
<b>Max. input level</b>	+46 dBu (15.5 V) at clipping, +20 dBu (7.75 V) at nominal level
<b>Noise-Reduction</b>	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
<b>AF bandwidth</b>	<ul style="list-style-type: none"> <li>▪ 45 Hz ÷ 21 KHz (3dB)</li> <li>▪ 55 Hz ÷ 20 KHz (1dB)</li> </ul>
<b>Distortion</b>	< 0.3 % (0.15 % typ.)
<b>Signal-to-noise ratio</b>	<ul style="list-style-type: none"> <li>▪ typ. 115 dB (A)<sub>rms</sub> with 40 kHz deviation</li> <li>▪ typ. 121 dB (A)<sub>rms</sub> with 56 kHz deviation</li> </ul>
<b>Led</b>	RGB Led indication (red, green and blue): <ul style="list-style-type: none"> <li>▪ Wireless transmission status                             <ul style="list-style-type: none"> <li>- Green when RF transmission power is on,</li> <li>- Red when RF transmission power is off.</li> <li>- Blue when the input signal is above the peak threshold</li> </ul> </li> <li>▪ Modulation peak (if activated &amp; limiter disabled): <i>RED</i></li> <li>▪ Battery lifetime status: <i>GREEN</i> - <u>steady</u> (&gt; 25%) - <u>slowly blinking</u> (&lt; 25%) - <u>quickly blinking</u> (&lt;12%)</li> </ul>
<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 batteries (Alkaline, rechargeable NiMH or Lithium) – Phantom Power to Mic (max 4 mA)
<b>Dimension</b>	124 x 40 x 34 mm (Height-Width-Depth)
<b>Weight</b>	Approx. 210 g. without batteries (250g with batt)

### **POWER PROFILE & COUNTRY** **FREQUENCY RANGE:**

- EU** max power 50mW (Europe)
- EUX** max power 100mW (Europe)
- US** max power 50mW (USA & Canada)
- USX** max power 100mW (USA & Canada)
- CN** max power 50mW (China)
- JP** max power 10mW (Japan)
- NZ** max power 100mW (New Zealand)
- AU** max power 100mW (Australia)

\* MTB40S -EUX is not an SRD device, it requires specific authorization by your local frequency authority!

### **VARIANTS:**

#### **• FREQUENCY RANGE**

- B1** 470-640 MHz
- B5** 470-654 MHz
- B2** 566-798 MHz
- B3** 510-698 MHz

#### **• COLOR**

- PV** ceramic coating

**Note:** MTB40S series complies with ETSI 300 422