

MTB40S User Manual

Wideband Plug-on Transmitter



SN: _____

Rev.10 (rif. FW 1.30.OP)

Date: 22 May 2019

INTRODUCTION

MTB40S is an extremely small and light plug-on transmitter 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.

FEATURES

- Up to 232 MHz bandwidth in 470/798 MHz range (other on request)
- 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 compander systems: - ENR designed for maximum noise reduction
- ENC designed for maximum audio fidelity
- *Input dynamic extension with an integrated HW limiter (30 dB above peak)*
- P48 phantom power for condenser microphones
- *New white OLED display (128 x 32 pixels)*
- *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

SAFETY INSTRUCTION

- Read this safety instruction and the manual first
- Follow all instructions and information.
- Do not lose this manual.
- Do not use this apparatus under the rain or near the water.
- Do not install the apparatus near heaters or in hot environments, do not use outside the operating temperature range.
- Do not open the apparatus, only qualified service technician are enabled to operate on it. The apparatus needs servicing when it is not properly working or is damaged by liquids, moisture or other objects are fallen in the apparatus.
- Use only accessories or replacement parts authorized or specified by the manufacturer.
- Clean the apparatus only with dry cloths, do not use liquids.
- Report the serial number and the purchasing date in front of the manual. It is needed to have proper replacement parts or accessories from the manufacturer.
- When replacement parts are needed, use only replacement parts authorized from the manufacturer. Substitution with not authorized parts could result in electric shock, hazards or fire.
- Keep attention on all the labels with warnings or hazards on the apparatus.
- Wisycom declines all responsibility for damages to things or people caused by not following the instructions contained in this document
- MTB40S transmitter is intended for use as plug on transmitter. In case of usage near human body the user shall respect the minimum distance of 50 mm between user and the plug-on with MTB40S while operating in order to ensure a safe exposure to RF energy.

LED INDICATION

The front led is a RGB indicator (**red**, **green**, **blue**) which shows the following status of the transmitter:

- Wireless transmission status: **green** when RF transmission power is on (on power on the device, this LED is **red** and become green when the RF transmission power is on).
- Battery status: **green** steady, slowly blinking (< 25%), quickly blinking (<12%).
- Modulation peek (if activated): **red**.
- Limiter in action (if activated): **blue**.

BATTERIES

MTB40S is working with 2 AA alkaline, NiMH or Lithium batteries (select correct type on setup controls). Battery status can be checked on internal OLED display or looking to LED status on front.

BATTERY SUBSTITUTION

- Open transmitter cover and insert batteries.
Attention: always replace both the batteries



OPERATING CONTROL

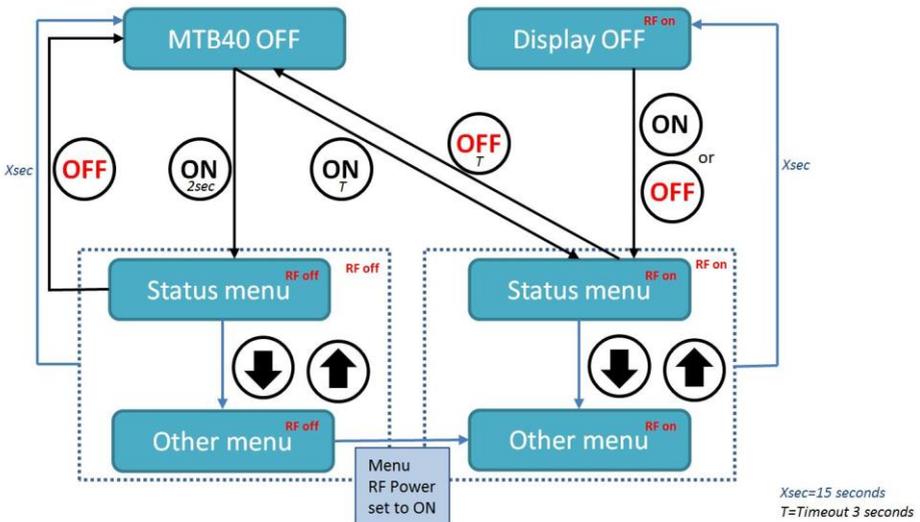
- 1 Shotgun Microphone input, XLR-3F socket (balanced)
- 2 OLED display
- 3 OFF button
- 4 ON/SEL button
- 5 ↓ DOWN button
- 6 ↑ UP button
- 7 LED indicator
- 8 CH/GAIN button
- 9 Battery compartment cover





WARNING: for a correct insertion of the microphone/boom, screw the ferrule up to the end of the threading and then connect the mic/boom.

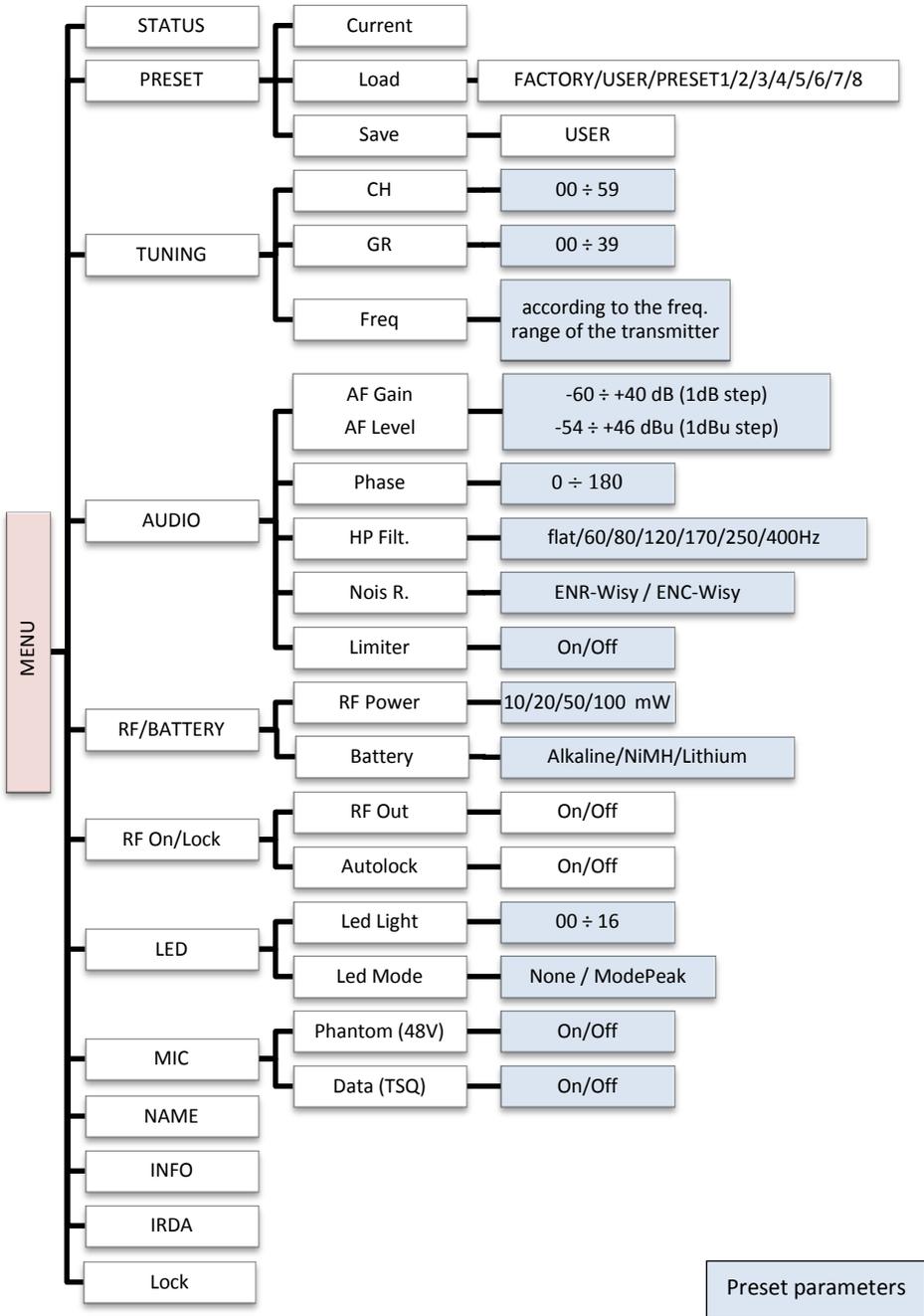
POWER UP/DOWN



Buttons	Mode	To...
OFF	Status display	- power off the device - power off the RF transmission - exit from the operating menu
	Operating menu	Cancel the entry and return to the standard display
	Setting mode	
ON/SEL	Device off	- power on the device - power on the RF transmission
	Status display	- enter on the operating menu
	Setting mode	- store the setting a parameter in the menu

DISPLAY MENU

Setup menu are accessed in sequence:



Preset parameters

Using   selector all menus can be accessed in sequence, push <ON/SEL> to enter edit mode:
 -   to setup field
 - <ON/SEL> again to confirm changes and exit.

Exit without confirmation if:

- no button is pressed after a few seconds (4sec) time out or
- OFF button is pressed

<START UP> menu

These menu are displayed during power up for few seconds.

	<p>This menu gives indication on product:</p> <ul style="list-style-type: none"> - product id (MTB40S), - the firmware release (i.e. 1.30.0A), - the band in extended format and - the serial number. <p>Keep selector pushed to hold this menu!</p>
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<STATUS> menu

This is the first menu displayed after power up.

	<p>Major info are displayed:</p> <ul style="list-style-type: none"> - Current channel/group or the receiver name if the MTB40S is already synchronized with a receiver - Current frequency (i.e. 520.000 MHz) - Gain (i.e. AF: -12 dB) and high pass filter (i.e. HP: 120 Hz) - "RF 10", "RF 50" or "RF off" on top right if RF transmission is ON ("RF 10" if the RF power is set to 10mW or "RF 50" if the RF power is set to 50mW) or OFF - Batteries charger (a bar with 7 level)
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<PRESET> menu

This menu can be entered by pushing .

	<p>MTB40S can recall configuration presets. "FACTORY" recalls the Wisycom factory configuration. "USER" recalls the user configuration (the transmitter configuration is copied into the USER using the "save to" submenu). All "USER" menus are not locked by default, thus this is quick way to unlock features! When the user changes some parameters from the PRESET configuration (for less than frequency) a star appears on the top-right corner until a save command is executed.</p>
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The other 8 configuration presets are user programmable thru the infrared and the PC interface (using the programmer UPK 300/UPKMini or the receiver MRK950/MRK960).

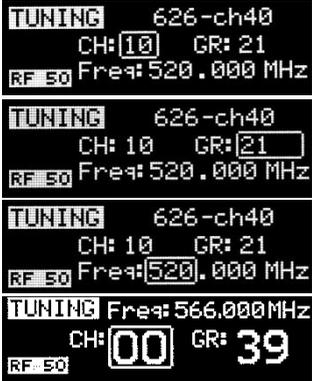
We provide the device with some preset configurations specifically designed for certain types of microphone or applications (it's possible to change these presets in any time using the TX manager).

All parameters can be "left unchanged", "changed" or "changed and lock", allowing a very flexible way to pre-program MTB40S configuration.



<TUNING> menu

This menu can be entered by pushing .



In this menu channel/group and frequencies can be setup. The name of the group is shown on the top right of the display. SYNC group is a quick self-settable channel synchronized by receiver (with SYNC group, on the top right of the display is shown the name of the synchronized receiver). Use the selector ( ) to change values and <SEL> to confirm.

Using quick channel setup buttons (<CH>), it is possible to enter quickly in the tuning menu. Note that the menu has a different layout (see the side image)

<AUDIO> menu

In the AUDIO menu are shown all the audio parameters (this menu can be entered by pushing .



The sensitivity of the audio input is settable between "AF Gain" (measured in dB) or "AF Level" (measured in dBu).

To help proper audio gain setting, an audio bar is supplied (with maximum peak indicator) indicating the headroom to audio peak (0 dB, nominal deviation 40KHz). *Set the gain, with the maximum input signal, avoiding the peak on the audio bar.*

TRY TO SETUP TO HAVE A MAX PEAK HOLD BAR CLOSE TO -6dB.



Using quick gain setup buttons (<GAIN>), it is possible to enter quickly in the audio gain menu. Note that the menu has a different layout (see the side image)



The second <AUDIO> menu allows to set:

- audio phase (0° or 180°)
- High Pass Filter: applies different audio HP filter: Flat/ 60Hz/ 80Hz/ 120Hz/ 170Hz/ 250Hz/ 400Hz.



The third <AUDIO> menu allows to set the noise reduction and setup the limiter:

- MTB40S supports 2 different type of "Companding systems":
 - ENR-Wisy:** designed for maximum noise reduction;
 - ENC-Wisy:** designed for maximum audio fidelity (use this in case of special vocal application or to remote instruments).
- Limiter: if is set "On", an input audio signal above the peak threshold (*up to 30 dB above peak*) is not cut but attenuate, without lost quality. The limiter acts as a variable attenuator (thanks to the feedback system), maintaining a distortion <3%. When the limiter intervenes, the front led turns blue. If this parameter is set "Off", the limiter is disable.



<RF/BATTERY> menu

This menu can be entered by pushing .

<pre>RF/BATTERY RF Power: 50 mW RF 50 Battery: Alkaline RF/BATTERY RF Power: 50 mW RF 50 Battery: Alkaline</pre>	<p>Here it's possible to setup:</p> <ul style="list-style-type: none"> - "RF Power", that can be 10 mW, 20mW, 50 mW - Battery type can be setup in Alkaline, NiMH or Lithium. <p>Use the selector ( ) to change values and <SEL> to confirm.</p>
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<RF On/Lock> menu

This menu can be entered by pushing .

<pre>RF On/Lock RF Out: On Autolock: Off RF On/Lock RF Out: On Autolock: Off</pre>	<ul style="list-style-type: none"> - RF Out: setup to On/Off to activate or not the radio transmission. - Autolock: select ON for lock the transmitter after the auto turn off of the display <p>Use the selector ( ) to change values and <SEL> to confirm.</p>
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<LED> menu

This menu can be entered by pushing .

<pre>LED Led Light: 08 Led Mode: ModPeak LED Led Light: 00 Led Mode: ModPeak</pre>	<p>In "Led Light" the brightness of the front led  can be set from 0 to 16 level.</p> <p>It's also possible to change the mode of function of the LED (in "LED Mode") selecting <i>ModPeak</i> (become RED when audio get close to saturation) or <i>None</i> (never become RED).</p> <p>Use the selector ( ) to change values and <SEL> to confirm.</p>
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<MIC> menu

This menu can be entered by pushing .

<pre>MIC Phantom (48V): Off Data (TSQ): On MIC Phantom (48V): Off Data (TSQ): On</pre>	<p>In "MIC" menu is possible to activate Phantom (48V) and Data (TSQ)</p> <p>When Data (TSQ) is enabled, the transmitter sends the tone squelch and the battery data to the receiver.</p> <p>Use the selector ( ) to change values and <SEL> to confirm.</p>
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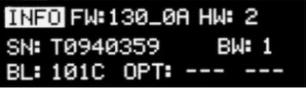
<NAME> menu

This menu can be entered by pushing .

<pre>NAME Freq: 618.000 MHz Actor_01</pre>	<p>In this menu it's possible to see the frequency set on the device and the name of the transmitter.</p>
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<INFO> menu

This menu can be entered by pushing .

 <pre>INFO FW:130_0A HW: 2 SN: T0940359 BW: 1 BL: 101C OPT: --- ---</pre>	<p>In this menu it's possible to see:</p> <ul style="list-style-type: none">- FW version- HW version- Serial number- Bandwidth- Bootloader version- Option
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<IRDA> menu

This menu can be entered by pushing .

 <pre>IRDA IRDA Enabled</pre>	<p>While there is this menu, the device can be connected to IRDA for setup or firmware upgrades.</p> <p><u>Note: if the IRDA interface is enabled and there's no communication for around 10 seconds, the IRDA interface is automatically turned off.</u></p>
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On power on the device, the IRDA interface is enabled for 14 seconds.

<LOCK> menu

This menu can be entered by pushing .

 <pre>LOCK Keep SEL pressed to enable RF & LOCK</pre>	<p>Long pressing (2 sec.) selector button (SEL) it locks MTB40S in transmission mode.</p> <p>To unlock, long pressing (2 sec.) selector button again.</p>
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<BOOTLOAD> menu

This menu can be entered pushing **at the same time** both up and down selector and then pushing the **ON button** (+ & **ON**) or connecting the device via IRDA using the IR Programmer for FW update.

 <pre>BOOTLOAD</pre>	<p>Device is forced in bootloader mode to allow FIRMWARE UPDATE.</p>
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HOW TO USE WISYCOM TX MANAGER

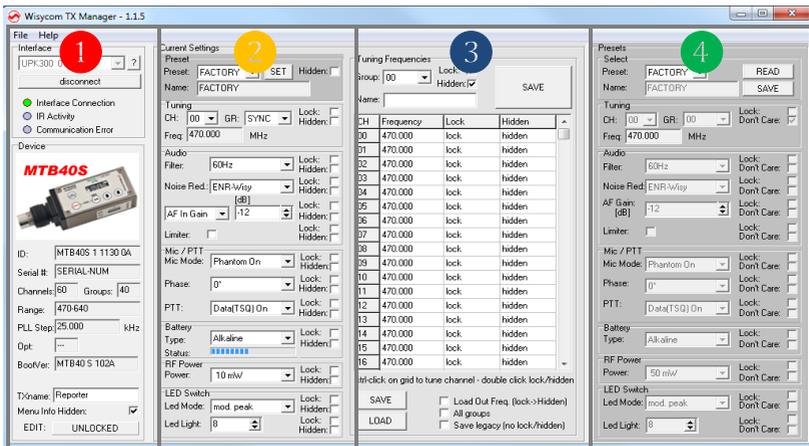
Wisycom TX Manager allows to read, modify and update the configuration of Wisycom transmitters. It is necessary to

- connected the programmer UPK300E/UPKMini or the receiver MRK950/MRK960 to the PC thru **USB connection**
- run the Wisycom TX Manager
- enable the IRDA communication on the transmitter (see IRDA menu)

NOTE: Wisycom IR Programmer doesn't work whit MRK950/MRK960 if it is connected to the PC using an Ethernet cable.

The Wisycom IR Programmer's window is divided in 4 parts (see the image below):

- 1 Interface and Device panel** contains all the major information of the connected device
- 2 Current Settings panel** shows the current configuration. Thanks the PRESET panel, a previous saved configuration can be chosen and loaded like current setting.
- 3 Tuning Frequencies panel** allows to handle Groups, Channels and Frequencies
- 4 Presets panel** allows to read, change and save different configurations



10 different configurations are available:

- FACTORY configuration is a locked configuration: no parameter can be changed.
- USER configuration is the only configuration that can be saved using the OLED display (see <PRESET> menu). Note: It is not possible to change the name of this configuration.
- Other 8 configurations where the user can change both the name and the values of all parameters.

INTERFACE AND DEVICE PANEL (1)

At the beginning, the program checks which IR devices are detected and they appears on the **Interface** panel.

The user has to select the device and push <connect> button in order to open the communication with the IR device. A picture on the top in the Interface panel help the user in this selection showing the type of devices detected. During this process the “IR activity” led blinks to indicate that the program wait connection’s answer from the IR device.

A successful connection is signaled with the “interface connection” green led, while a failed connection is signaled with the “communication error” led.

Once a supported device is found, the software automatically reads all the data related to the remote configuration, as well as the frequencies that are pre-programmed.

Firstly, in order to avoid unwanted operation, no parameters can be changes and the EDIT button, presents on the bottom of **Device** panel, is yellow and set to **LOCKED** state. Pushing the EDIT button, it becomes grey and sets to **UNLOCKED** state to indicate that the configurations can be modified.

In this panel it’s possible to assign a name to the TX (not available for FW v.1.22.0F or previous). Under this parameter, there is a flag to hide the info menu on the TX (not available for FW v.1.22.0F or previous)

CURRENT SETTINGS PANEL (2)

In the Current Settings panel the user can

- with Preset panel → load one of the 10 available configurations
- with other panels → modify all the configuration’s parameters (the same that are changeable in the OLED display). Each parameter can be locked or hidden clicking the related lock/hidden button, so the set value cannot be changed next or cannot be visible on the OLED display.



Preset			
Preset:	USER	SET	Hidden: <input type="checkbox"/>
Name:	USER		



Noise Red.:	ENR-Wisy	Lock: <input type="checkbox"/>
		Hidden: <input type="checkbox"/>

ATTENTION: All the modifies applied to the Current Settings panel are instantaneous: they are applied directly to the device and save in its memory but no saved in the preset configuration.

TUNING FREQUENCIES PANEL (3)

With the Tuning Frequencies panel the user can select a frequencies group (0÷39) and for each one execute the following operations:

- modify the Group's Name
- lock and/or hidden the group
- for each channel (0 ÷59) of the selected group: change the frequency value and the related status (locked/hidden) (in the center grid frequency)

The SAVE button, at the top of the panel, save the changes of the group selected (name group, lock/hidden group).

Tuning Frequencies
 Group: 01 Lock:
 Hidden:
 Name: GROUP01
 SAVE

To change a frequency value for a specific channel: double click on the grid frequency panel (row=channel's number), insert the new frequency value and press OK button.

CH Frequency Lock Hidden

00	630.000		
01	630.000		
02	630.000		
03	630.000		
04	630.000		
05	630.000		
06	630.000		
07	630.000		
08	630.000		
09	630.000		
10	630.000		
11	630.000		
12	630.000		
13	630.000		
14	630.000		
15	630.000		

Frequency

Insert frequency value (range 630-750 MHz)
 Step 25.000 kHz
 Frequency: 720 MHz
 OK cancel

ctrl-click on grid to tune channel - double click: lock/hidden

CH	Frequency	Lock	Hidden
00	630.000		
01	630.000		
02	630.000	lock	hidden
03	630.000		

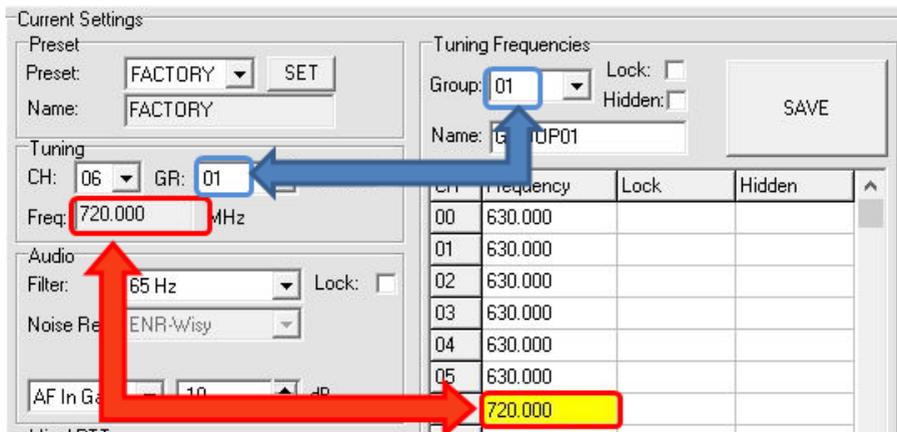
double click to LOCK the channel

double click to HIDE the channel

To lock/hide a specific channel, double click on the grid frequency panel.

NOTE: keeping pressed the CTRL button on the keyboard and clicking the wanted channel/group shown on the frequencies grid, the tuning process is executed. It is equivalent to configure the Tuning in the Current Settings panel but it is easier. The device is re-tuned immediately, so be sure that the RF power is turned off while changing frequencies with other RF systems in use around you!

If the currently tuned channel is on the same group that is listed on the grid, the background color of the related cell (channel) on the grid becomes yellow.



Using the LOAD/SAVE button, at the bottom of the panel, it is possible to **load/save** the frequencies for the selected group from/to a .wdf file. To save the frequencies of all the groups click to the related button above. The legacy option save the channels without the hidden/lock info.



PRESETS PANEL (4)

The Preset panel allows to manage all the 10s available configurations.

For each configuration it is possible to set the name and all the parameters value except for FACTORY and USER configurations (see table below).

PRESETS:	NAME*	LOCK/DON'T CARE	PARAMETERS VALUE
FACTORY			
USER			√
OTHERS	√	√	√

√=change is allowed

* Be careful to write a meaningful name for the preset because the name will appear on the settings list of the device menu! Please, avoid empty names.

If a parameter is “locked”, it cannot be modified by device menu (using OLED display), while if “don’t care” propriety is active, when the user load the configuration, the parameter’s value doesn’t changed.

ATTENTION: Changes are applied only after a “save” action.

NOTE: “a trick” In case of the user have a locked parameter and he is in great need for modify it, he can save the configuration to USER configuration by OLED (see PRESET menu) and then load the USER configuration (in this way all the parameters have the lock propriety disable and the user can modify all the parameters).

FILE MENU



Using a file menu at the top left of the panel it is possible to **load/save all the configuration** values of the device to/from a .wcf file (Wisycom Configuration File).

Save a .wcf file

With an infrared device correctly connected, select File->Save User Configuration and select the destination file.

Load a .wcf file

To load a user configuration select File->Load User Configuration and select a previously saved data file; a form will be shown, where it's possible to select which data has to be restored and which skipped. This allow the user to load a particular configuration while keeping other data.

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> on the next page)
Frequencies	Quartz PLL frequency synthesizer circuit (25 kHz step)
Frequency stability	▪ $\pm 2,5$ ppm (in the rated temperature range)
Temp. range	-10 ÷ +55 °C
Max RF power	▪ 10 mW (ERP) (to respect some local norm) ▪ 20/50/100 mW (ERP) (note: in some countries middle power can be disabled, for local norm!)
Spurious emissions	< 2 nW
Modulation	wideband FM, with 50 μ s pre-emphasis
Nominal deviation	± 40 kHz (Peak deviation = ± 56 kHz)
Telemetry feature	MTB40S 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 connector	XLR-3F (transformer isolated) with locking collar and 48V phantom power
AF input level	100 dB adjustable range from -54 dBu (775 μ V) to 46 dBu (15.5 V) at peak deviation (1 kHz), adjustable in 1 dB steps
Max. input level	+46 dBu (15.5 V) at clipping, +20 dBu (7.75 V) at nominal level
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-emphasis
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 40 kHz deviation ▪ typ. 121 dB (A) _{rms} with 56 kHz deviation
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)
Led	RGB Led indication (red, green and blue): ▪ Wireless transmission status - Green when RF transmission power is on, - Red when RF transmission power is off. - Blue when the input signal is above the peak threshold ▪ Modulation peak (if activated & limiter disabled): <i>RED</i> ▪ Battery lifetime status: <i>GREEN</i> - <u>steady</u> (> 25%) - <u>slowly blinking</u> (< 25%) - <u>quickly blinking</u> (<12%)
Power supply	2 AA size batteries (Alkaline, rechargeable NiMH or Lithium) - Phantom power to Shotgun Microphone (max 4mA)
Dimension	123 x 39,4 x 34 mm (Height-Width-Depth)
Weight	Approx. 210 g. without batteries (250g with batt)



POWER PROFILE & COUNTRY

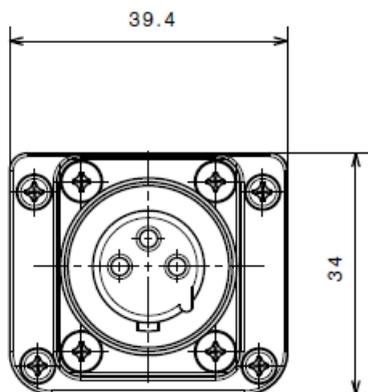
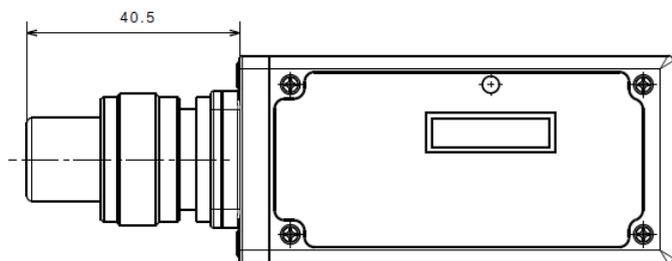
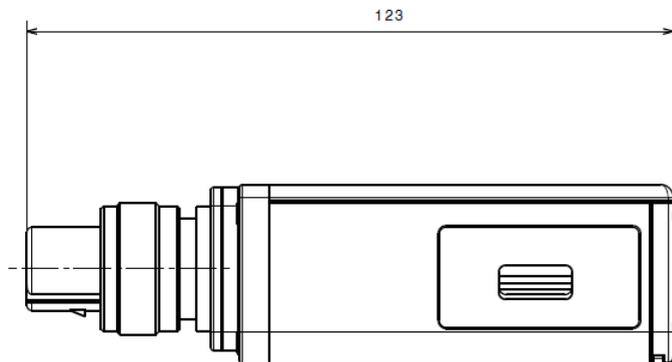
FREQUENCY RANGE:

- 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)
- US8** max power 100mW (USA)

VARIANTS:

▪ FREQUENCY RANGE

- B5** 470-654 MHz
- B2** 566-798 MHz
- B3** 510-698 MHz
- B8** 940-960 MHz



Note: unit is mm

Compliance

Model	In Compliance with	Max Power	Country
MTB40S MTB40S-EU	EN 301 489-1/-9 EN 600065 EN 300 422-1/-2	50mW	Europe CE
MTB40S-EUX	EN 301 489-1/-9 EN 600065 EN 300 422-1/-2 EN 300 454-1/-2	100mW* ¹	Europe CE
MTB40S-US	 PART 74 FCC-ID: POUMTB40SUSX RSS-210 IC: 11967A-MTB40SUSX Limited to 663MHz	50mW	USA, Canada
MTB40S-USX	 PART 74 FCC-ID: POUMTB40SUSX RSS-210 IC: 11967A-MTB40SUSX Limited to 663MHz	100mW	USA, Canada
MTB40S-US8	 PART 74 FCC-ID: POUMTB40SUS8 Limited to 941.50-952.00MHz, 952.85-956.25MHz, 956.45-959.85MHz	100mW	USA

*¹ MTB40S-EUX is not an SRD device, thus it requires specific authorization by your local frequency authority!



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

MANUFACTURER DECLARATIONS

In compliance with the following requirements

- RoHS Directive (2002/95/EC)



- WEEE Directive (2002/96/EC)

Please dispose of the diversity transmitter at the end of its operational lifetime by taking it to your local collection point or recycling center for such equipment



- Battery Directive (2006/66/EC)

The supplier batteries or rechargeable batteries can be recycled. Please dispose of them as special waste or return them to your specialist dealer. In order to protect the environment, only dispose of exhausted batteries.

ITALY ONLY

Obblighi di informazione agli utilizzatori

ai sensi dell'art. 13 del Decreto Legislativo 25 luglio 2005, n. 151 "Attuazione delle Direttive 2002/95/CE, 2002/96/CE e 2003/108/CE, relative alla riduzione dell'uso di sostanze pericolose nelle apparecchiature elettriche ed elettroniche, nonché allo smaltimento dei rifiuti"

Smaltimento di apparecchiature elettriche ed elettroniche di tipo professionale



Il simbolo del cassonetto barrato riportato sull'apparecchiatura o sulla sua confezione indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti.

La raccolta differenziata della presente apparecchiatura giunta a fine vita è organizzata e gestita dal produttore. L'utente che vorrà disfarsi della presente apparecchiatura dovrà quindi contattare il produttore e seguire il sistema che questo ha adottato per consentire

la raccolta separata dell'apparecchiatura giunta a fine vita.

L'adeguata raccolta differenziata per l'avvio successivo dell'apparecchiatura dismessa al riciclaggio, al trattamento e allo smaltimento ambientale compatibile contribuisce ad evitare possibili effetti negativi sull'ambiente e sulla salute e favorisce il reimpiego e/o riciclo dei materiali di cui è composta l'apparecchiatura.

Lo smaltimento abusivo del prodotto da parte del detentore comporta l'applicazione delle sanzioni amministrative previste dalla normativa vigente.

Smaltimento batterie usate



Questo prodotto può contenere batterie. Questo simbolo apposto sulle batterie significa che non possono essere smaltite insieme a normali rifiuti domestici, bensì devono essere depositate negli appositi punti di raccolta delle batterie.

Iscrizione al Registro A.E.E. n. IT0910000006319

FCC Conformity

The Wisycom plug-on transmitter (model: MTB40S-USX or MTB40S-US) complies with the following requirements:

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operations.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC-ID: POUMTB40SUSX option USX

FCC-ID: POUMTB40SUS8 option US8

Industry Canada Conformity

PMN: Transmitter Unit

Product description: Plug-on transmitter

EN

This device operates on a no-protection, no-interference basis. Should the user seek to obtain protection from other radio services operating in the same TV bands, a radio licence is required. For further details, consult Innovation, Science and Economic Development Canada's document Client Procedures Circular CPC-2-1-28, Voluntary Licensing of Licence-Exempt Low-Power Radio Apparatus in the TV Bands.

This device complies with Industry Canada RSS-123.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

FR

Ce dispositif fonctionne selon un régime de non-brouillage et de non-protection. Si l'utilisateur devait chercher à obtenir une certaine protection contre d'autres services radio fonctionnant dans les mêmes bandes de télévision, une licence radio serait requise. Pour en savoir plus, veuillez consulter la Circulaire des procédures concernant les clients CPC-2-1-28, Délivrance de licences sur une base volontaire pour les appareils radio de faible puissance exempts de licence et exploités dans les bandes de télévision d'Innovation, Sciences et Développement économique Canada.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio RSS-123. L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

DECLARATION OF CONFORMITY



EU DECLARATION OF CONFORMITY

We,

WISYCOM S.r.l.
via Spin, 156 - 36060
Romano d'Ezzelino (VI) - Italy

declare under our sole responsibility that the product

Description **MTB40S**
Model **Wireless Plug-on Transmitter**

conforms to the essential requirements of the RADIO Directive 2014/53/EU – Radio Equipment Directive (RED)

Directive	Applicable Standards	Description
Radio	EN 300 422-1 v2.1.2	Wireless Microphones; Audio PMSE up to 3 GHz; Part 1: Class A Receivers; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU
EMC	EN 301 489-1 v1.9.2	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
	EN 301 489-9 v1.4.1	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 34: Specific conditions for External Power Supply (EPS) for mobile phones
Safety	EN 62368-1 2014	Audio/video, information and communication technology equipment — Part 1: Safety requirements (IEC 62368-1:2014, modified)
RoHS	EN 50581 2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Date: 10 July 2018

Franco Maestrelli, Managing director

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