

MTP40 User Manual

Wideband Wireless
Professional Pocket
Transmitter



SN: _____

Rev.02 (rif. FW 1.10.0L)

Date: 12 June 2013

INTRODUCTION

"MTP40 is an extremely small and light pocket transmitter especially designed for professional wireless microphone applications"

Very easy and quick to use thanks to OLED display, dedicated buttons and a joggle selector.

MTP40 benefits also of the latest Wisycom RF technology along with an enhanced robustness against noise and inter-modulation.

Fig. 1



Turn on wireless:

Move the Wireless **power switch** in "I" position: switch becomes green (red indicate PTT/MUTE).

A green blinking gives you indications on battery status.

Turn on display:

Push <select switch> and hold it.

Open MIC Body:

Push the side buttons and flip down the cover, to access internal setup controls and batteries.

- 1 Switch to enable wireless transmission, it also indicates the battery status and peak/mute operation (with PTT)
- 2 In order to allow front visibility same colour information on (1) is replicated with this LED
- 3 Oled display for transmitter setup
- 4 <ch>, <gain> and 3 positions <selector>
- 5 Battery holder
- 6 Cover (to open push side buttons)

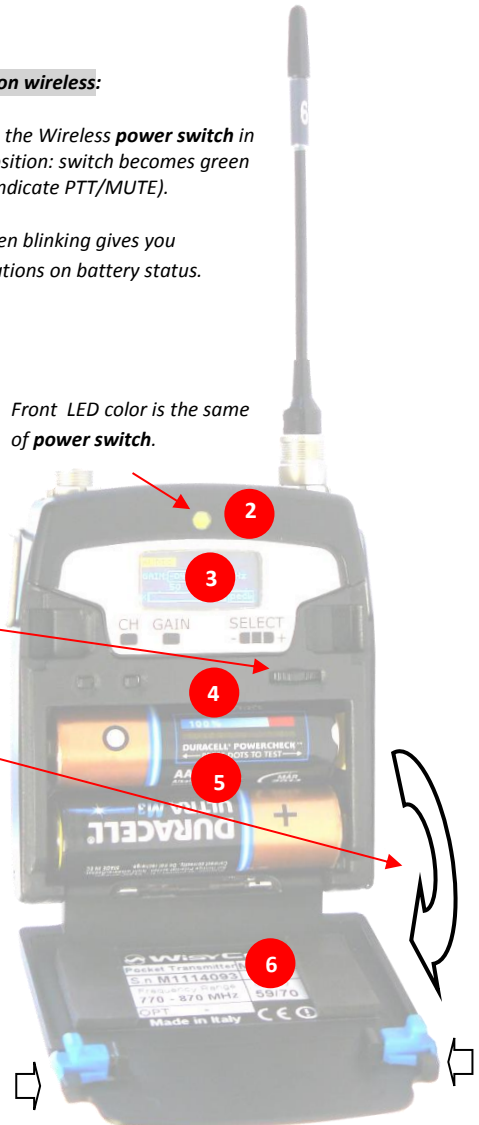


Fig. 2

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.

LED INDICATIONS

Led indication with bi-colour led (red & green) on wireless power switch (1) and in front led (2):

- Wireless transmission status: green when RF transmission power is on.
- Battery status: green steady, slowly blinking (< 25%), quickly blinking (<12%).
- Modulation peek (if activated): red.
- Ptt status: red if active (push to talk “pushed”).

BATTERIES

MTP40 is working with 2 AA alkaline or NiMH batteries (select correct type on setup controls). Battery status can be checked on internal OLED display or looking to LED status on power switch (see 1.1).

BATTERY SUBSTITUTION

- Open transmitter cover and insert batteries following polarity indicated.

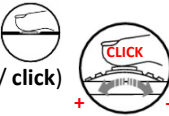
Attention: always replace both the batteries

POWERING UP

Move the wireless power switch (see Fig. 1) in “I” position to activate wireless transmission: a green LED lights up (blinking when battery is low!)

SETUP CONTROL

Open transmitter Body to access the “display and controls” area (Fig. 3):

- A. Graphics Display (OLED)
 - B. Channel selection buttons (ch)
 - C. MIC gain setup buttons (gain)
 - D. 3 position selector (up / down / click)
- 

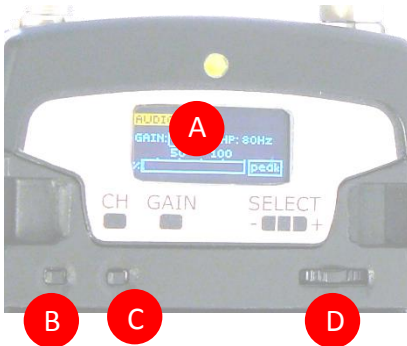


Fig. 3

OLED POWER UP (OLED IS IN OFF CONDITION)

Pushing down selector (**click**), oled turns on. A first menu with serial NO and brand logo is displayed, then <status> menu enters automatically.

Pushing and holding selector (**click**) > 2 sec, serial NO menu is displayed till (-/+) is selected.

OLED POWER DOWN (OLED IS IN ON CONDITION)

Pushing and holding selector (**click**) > 2 sec, display is turned off.

Display turns off automatically after 15 sec, unless in <IRDA> menu or in <AUDIO> menu (with audio level < 5% from nominal).

DISPLAY MENU

Setup menu are accessed in sequence:

→ <STATUS> → <PRESET> → <TUNING> → <AUDIO> → <MIC> → <RF POWER> →
 <NOISE RED> → <OTHER> → <IRDA> → <LOCK> →

Using <+/-> selector all menus can be accessed in sequence, push <click> to enter edit mode:





<+/-> to setup field

<click> again to confirm changes and exit.

exit without confirmation if no button is pressed after a few seconds time out.


<START UP> menu

These menus are displayed during power up for few seconds.

	<p>First one gives information of antenna to be used. The number displayed is the center-band of the antenna to be used.</p>						
	<p>The second menu gives indication on product:</p> <ul style="list-style-type: none"> - product id (MTP40), - a number which identify the working band <table border="1" data-bbox="580 901 882 997"> <tr> <td>1</td><td>470-640 MHz</td></tr> <tr> <td>2</td><td>566-798 MHz</td></tr> <tr> <td>3</td><td>510-698 MHz</td></tr> </table> - a number which identify the hardware version - the firmware release (110.OF), - the band in extended format and - the serial number. <p>Keep selector pushed to hold this menu!</p>	1	470-640 MHz	2	566-798 MHz	3	510-698 MHz
1	470-640 MHz						
2	566-798 MHz						
3	510-698 MHz						

<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 (i.e. CH:00 GR:08) - Current frequency (i.e. 566.075 MHz) - Mic gain (i.e. AF: -04 dB) and high pass filter (i.e. HP:60 Hz) - "RF H" or "RF L" on top right if RF transmission is on at high or low power respectively - On bottom battery bar is displayed
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<PRESET> menu

This menu can be entered by scrolling selector, or pushing **at the same time** both quick channel setup buttons (<ch> & <gain>).



MTP40 can recall configuration presets. “FACTORY” recall the Wisycom factory configuration. “USER” recall 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!



The other 8 configuration presets are user programmable thru the infrared and the PC interface (using the programmer UPK 300 or the receiver MRK950/MRK960). All parameters can be “left unchanged”, “changed” or “changed and lock”, allowing a very flexible way to pre-program MTP40 configuration.

<TUNING> menu

This menu can be entered by scrolling selector or using quick channel setup buttons (<ch>).



In this menu current channel/group and frequencies can be setup. Use the selector to change values (<+/->) and <click> to confirm. Sync group is a quick self-settable channel synchronized by receiver.

<AUDIO> menu

This menu can be entered by scrolling selector or using quick gain setup buttons (<gain>).



“AF In Gain” setup to tune audio input sensitivity:

To help proper audio gain setting, an audio bar is supplied with peak hold bar)

indicating the headroom to audio peak (0 dB).

AF gain is shown with 2 different unit of measurements dB (gain in dB of MTP40 amplifiers) or in dBu peak.




“HighPass Filter” applies different audio HP filter:

Flat / 60Hz / 120Hz / 170Hz / 250Hz / 400Hz.

Use the selector to change values (<+/->) and <click> to confirm.

<MIC> menu


This menu can be entered by scrolling selector.

	<p>Following Mic mode can be setup (for LEMO option)</p> <ul style="list-style-type: none"> -2 wires: (PTT is possible) for external audio input -2 wires + bias: (PTT is possible) for most 2 wires MIC -3 wires: (no PTT) for most 3 wires MIC -2 wires & pha: to connect a wired mic thru a 48V adapter (PHA48) -2 wires+bias & pha: Allow to connect a '2 wires + bias' MIC or a '2 wires & phantom' MIC (with PHA48) <p>Additional field to setup</p> <ul style="list-style-type: none"> - Phase: is audio phase can be 0/180 deg. - PTT operation mode:Normal (pushing make a remote switch)/Muting (pushing mute the audio) <p>Use the selector to change values (<+/->) and <click> to confirm.</p>
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NOTE: For DPA option (2 pin microdot audio connector), even if the MIC mode menu allows to set one of the 5 MIC modes, only **2 wires** or **2 wires+bias** mode are possible.



<RF POWER> menu

This menu can be entered by scrolling selector.

	<p>RF power can be setup to High (50 mW ERP) or Low (10 mW ERP).</p> <p>Use the selector to change values (<+/->) and <click> to confirm.</p>
---	---

<NOISE RED> menu

This menu can be entered by scrolling selector.

	<p>MTP40 supports 2 different type of "Companding systems"</p> <p>ENR: designed for maximum noise reduction</p>
	<p>ENC: designed for maximum audio fidelity (use this in case of special vocal application or to remote instruments)</p>

<OTHERS> menu

This menu can be entered by scrolling selector.



```

OTHERS
Led Light: 08
Led Mode: ModPeak
Battery: Alkaline
  
```

Power switch green LED brightness can be setup → LED light. Modulation peak LED on power switch (become RED when audio get close to saturation) can be enabled/disabled.

Battery type can be setup in Alkaline or NiMH.

<IRDA> menu

This menu can be entered by scrolling selector.



```

IRDA
IRDA Enabled
  
```

While is this menu MIC can be connected to IRDA for setup or firmware upgrades.

NOTE: while in this menu display is not automatically turned off.

<LOCK> menu

This menu can be entered by scrolling selector.



```

LOCK
Keep toggle pressed
to enable RF & LOCK
  
```

Long pressing (2 sec.) selector button (**click**) it locks MTP40 in transmission mode.

To unlock, long pressing (2 sec.) selector button again.

<BOOTLOAD> menu

This menu can be entered only turning on the transmitter while pushing **at the same time** both quick channel setup buttons (<ch> & <gain>).



```

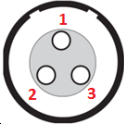
BOOTLOAD
  
```

Device is forced in bootloader mode to allow **FIRMWARE UPDATE**.

The following table sums up which parameters can be set and the related range settings.

MENU	PARAMETER	MEANING	RANGE SETTINGS
TUNING	CH	Channel	0 ÷ 59
	GR	Group	0 ÷ 39 + SYNC GROUP
	Freq	Frequency	depends on the MTP40 Model: 1 470-640 2 566-798
AUDIO	AF In Gain	Gain of the audio signal	depends on the mic mode setting (ex. -40dB ÷ 40dB step of 1 dB)
	High Pass Filter	High Pass filter	Flat/60/80/120/170/250/400 Hz
MIC	Mode	MIC type	'2 wires' '2 wires + bias' '3 wires' '2 wires & phantom' '2 wires + bias & phantom'
	Phase	Audio signal phase	0° or 180°
	PTT Mode	It defines how and what information the transmitter has to send	Disable: when the PTT button is pushed, nothing happen. (the transmitter sends AF+Tone squelch) Normal: when the PTT button is pushed, the transmitter send a different RF signal. According to the receiver configuration the audio can be enabled/disable on LINE (and/or COM). Muting: the transmitter doesn't send the audio. The voice is cut, it doesn't enter to the microphone No Data: the transmitter sends neither tone squelch nor battery data.
RF POWER	RF Power	RF Power	High (50 mW ERP) or Low (10 mW ERP)
NOISE RED.	NRSYS	Noise reduction	ENR: Wisycom Extended-NR, noise optimized ENC: Wisycom Extended-NC, voice optimized
OTHERS	Led Light	Power switch green brightness	0 ÷ 16
	Led Mode	It defines when the power switch led (see Fig. 3) has to become RED	None: never ModPeak: when audio get close to saturation PTT: when the PTT button is pushed
	Battery	Battery type	Alkaline or NiMH

MIC Mode setting (only for LEMO option):

MIC Mode:	Pin out	Gain	PTT	Led Mode
				
'2 wires':	1=GND 3=AF	-40/40 dB	Disable Normal Muting No data	None Mod. Peak PTT
'2 wires + bias':	1=GND 3=AF+5.5V	-20/40 dB	Disable Normal Muting No data	None Mod. peak PTT
'3 wires':	1=GND 2=5.5V 3=AF	-40/40 dB	Disable No data	None Mod. peak
'2 wires & phantom':	1=GND 2=3.1V (power for PHA48) 3=AF	-40/40 dB	Disable No data	None Mod. peak
'2 wires + bias & phantom':	1=GND 2=3. 1V (power for PHA48) 3=AF+5,5V	-20/40 dB	Disable No data	None Mod. peak

WISYCOM IR PROGRAMMER (VER. 1.3.1.1 AND ABOVE)

Wiscom IR Programmer allows to read, modify and update the MTP40 device configuration.

It is necessary to

- install Wiscom IR Programmer (version 1.3.1.1 or above)
WARNING: If it is the first installation and Wiscom USB driver has not already installed in the PC, install the USB driver (run `C:\Program Files (x86)\Wiscom\MTP&MTH Infrared Programmer (TX)\Drivers\DriverInstaller.exe`)
- connected the programmer PK300 or the receiver MRK950/MRK960 to the PC thru **USB connection**
- run the program
- enable the IRDA communication on the transmitter (see [IRDA menu](#))

NOTE: Wiscom IR Programmer doesn't work with MRK950/MRK960 if it is connected to the PC using an ethernet cable.

The Wiscom IR Programmer's window is divided in 4 parts (see Fig. 5):

- 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

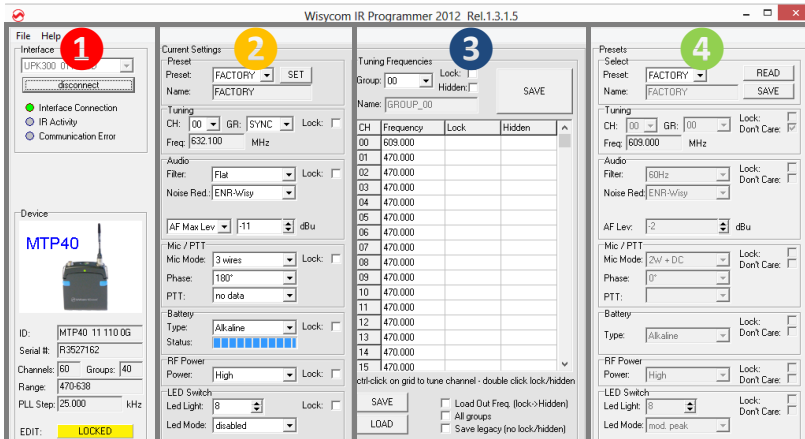


Figure 5: Wiscom IR Programmer's window

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

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.

CURRENT SETTINGS PANEL

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 clicking the related lock button, so the set value can not be changed next using the OLED display.

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

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).

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	lock	hidden
03	630.000		

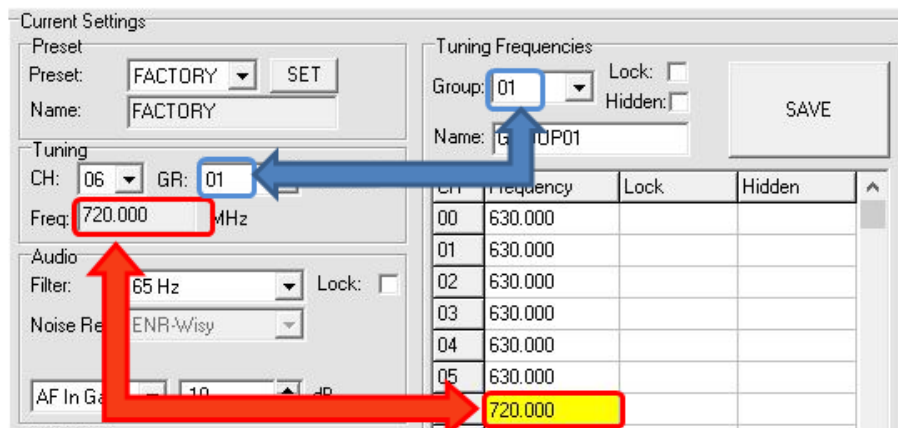
double click to LOCK the channel

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

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

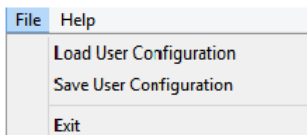
* Be careful to write a meaningful name for the preset because the name will appear on the settings list of the device menu! Please, avoid empty names.

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 (Wisyscom 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 <table> <tr> <td>1</td><td>470-640 MHz</td></tr> <tr> <td>2</td><td>566-798 MHz</td></tr> <tr> <td>3</td><td>510-698 MHz</td></tr> </table> <p>The range is limited by software for US products in the band 470MHz to 698MHz, excluding also the 608MHz-614MHz band.</p>	1	470-640 MHz	2	566-798 MHz	3	510-698 MHz
1	470-640 MHz						
2	566-798 MHz						
3	510-698 MHz						
Frequencies	Quartz PLL frequency synthesizer circuit (25 kHz step)						
Frequency stability	<ul style="list-style-type: none"> ± 2,5 pap (in the rated temperature range) ± 2.5 kHz (in the rated temperature range) 						
Temp.range	-10 ÷ +55 °C						
Max RF power	<ul style="list-style-type: none"> 50 mW (ERP) when high power selected 10 mW (ERP) when low power selected 						
Spurious emissions	< 2 nW						
Modulation	wideband FM, with 50 µs pre-emphasis						
Nominal deviation	±40 kHz (Peak deviation = ±56 kHz)						
Telemetry feature	MTP40 transmits also a digitally modulated sub-carrier, suitable for: <ul style="list-style-type: none"> <i>tone-squelch operating</i> <i>remote battery monitoring</i> <i>optional PTT (push to talk) operation</i> 						
AF input connector	Configurable on 'mic' display menu in 5 options: <ul style="list-style-type: none"> '2 wires': gain selectable -40 ÷ +40 (-54 dBu ÷ +26 dBu peak), no bias voltage '2 wires + bias': gain selectable -20 ÷ +40 (-54 dBu ÷ + 6 dBu peak), 5.5 V on 3k9 bias supply '3 wires': gain selectable -40 ÷ +40 (-54 dBu ÷ +26 dBu peak) '2 wires & phantom': gain selectable -40 ÷ +40 (-54 dBu ÷ +26 dBu peak), '2 wires + bias & phantom': gain selectable -20 ÷ +40, (-54 dBu ÷ + 6 dBu peak), 5.5 V on 3k9 bias supply 						
LEMO option							
AF input level	80 dB adjustable range from -54 dBu (1.2mV) to 26 dBu (15.5 V) at peak deviation (1 kHz), adjustable in 1 dB steps						
Max. input level	+26 dBu (15.5 V) at clipping, +20 dBu (7.75 V) at nominal level						
Noise-Reduction	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	<ul style="list-style-type: none"> 45 Hz ÷ 21 KHz (3dB) 55 Hz ÷ 20 KHz (1dB) 						
Distortion	< 0.3 % (0.15 % typ.)						
Signal-to-noise ratio	<ul style="list-style-type: none"> typ. 115 dB (A)_{rms} with 40 kHz deviation typ. 121 dB (A)_{rms} with 56 kHz deviation 						
Led	Led indication with bicolor led (red & green) on wireless power switch: <ul style="list-style-type: none"> Wireless transmission status: <ul style="list-style-type: none"> Battery lifetime status: <i>GREEN</i> - <u>steady</u> (> 25%) <i>GREEN</i> on/off - <u>slowly blinking</u> (< 25%) - <u>quickly blinking</u> (<12%) Modulation peek (if activated): <i>RED</i> Ptt status: <i>RED</i> if active 						
Display	High contrast OLED (Organic light-emitting diode) bicolor display (96 x 36 pixels) 8 step battery lifetime indication: 7 <u>bars</u> (100%-87%-75%-63%-50%-38%-25%) and "empty"						

	<u>bar</u> quickly blinking (12% remaining)
PTT function	Pin 3 of the AF connector can be setup to an external push button
Power supply	2 AA size batteries (Alkaline, rechargeable NiMH)
MTP40 Battery life	<ul style="list-style-type: none"> approx. 10 hours @ 50mW continuous working approx. 14 hours @ 10mW continuous working
(2 AA alkaline)	
Dimensions	73 x 61 x 17.5 mm (Height-Width-Depth) without clip
Weight	Approx. 80 g. without batteries (120g with batt.)

In compliance with


Europe	EMC: EN 301489-1/-9
CE	Radio: EN 300422-1/-2
	Safety: EN 600065

USA	 PART 74 FCC-ID: POUUMTP40 Limited to 698 MHz
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Note: MTP40 transmitter complies with ETS 300 422

OPTION CODE MTP40-X-YZ :


▪ **AUDIO CONNECTOR (-X)**

 3 PIN LEMO CONNECTOR

(use FVB.00.003.NLN on Mic)

 2 PIN MICRODOT CONNECTOR

▪ **COLOR (-Y)**

 body color "matt black"

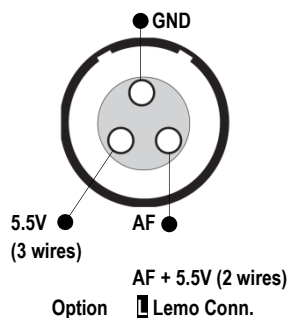
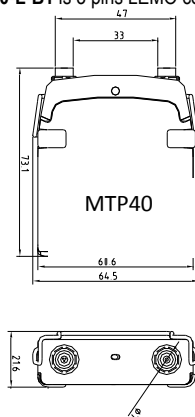
Ex. **MTP40-L-B1** is 3 pins LEMO connector , matt black color and 470-640 Mhz frequency range

▪ **FREQUENCY RANGE (-Z)**

1 470–640 MHz

2 566–798 MHz

3 510–698 MHz



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.

FCC Conformity

The Wisycom microphone pocket transmitter model MTP40 complies with the following requirements:

- FCC (Federal Communications Commission) Part 74

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 can be found inside the battery compartment.

FCC ID: POUMTP40

EC Declaration of Conformity

DICHIARAZIONE DI CONFORMITA' DECLARATION OF CONFORMITY

Il sottoscritto, rappresentante il seguente costruttore
The undersigned, representative of the following manufacturer

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

DICHIARA che l'apparecchiatura descritta in appresso:

DECLARES that the product:

Descrizione Pocket transmitter

Description

Modello Mtp40

Model

è conforme alle disposizioni legislative che traspongono le seguenti direttive:

- direttiva 2004/108 CE (Direttiva EMC)
- direttiva 2006/95 CE (Direttiva Bassa Tensione)
- direttiva 99/5 CEE (Direttiva Apparecchiature Radio)

is in accordance with the following Directives:

- 2004/108 EC Directive (EMC Directive)
- 2006/95 EC Directive (Low Voltage Directive)
- 99/5 EEC (Radio Equipment Directive)

e che sono state applicate tutte le norme e/o specifiche tecniche di seguito indicate
and that all the following standards have been applied

EN 60065:2002 + A1:2006 + A11:2008 + A2:2010 + A12:2011

EN 301 489-1 V1.9.2

EN 301 489-9 V1.4.1

EN 300 422-2 V1.3.1

Luogo Romano D'Ezzelino
Place

Data 25 July 2012
Date

Firma Franco Maestrelli
Sign
(nome e funzione)
(name and title)

WISYCOM s.r.l.

Franco Maestrelli

Amministratore Unico





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