



# Fox 3

## Digital Audio Changeover

(Rev. 1.2 ENG)

## SUMMARY

<b>SUMMARY</b>	<b>2</b>		
<b>SAFETY WARNINGS / ISTRUZIONI PER LA SICUREZZA</b>	<b>4</b>		
PREFACE	5		
SAFETY WARNINGS	6		
CONSIGNES DE SÉCURITÉ IMPORTANTES	8		
ISTRUZIONI IMPORTANTI PER LA SICUREZZA	10		
WICHTIGE SICHERHEITSHINWEISE	12		
INSTRUCCIONES IMPORTANTES DE SEGURIDAD	14		
<b>UNPACKING AND INSPECTION</b>	<b>16</b>		
<b>FIRST INSTALLATION RECOMMENDATIONS</b>	<b>17</b>		
POWER SUPPLY CABLE	17		
PROTECTION AGAINST LIGHTNING	17		
VENTILATION	18		
<b>DEVICE INSTALLATION</b>	<b>18</b>		
<b>DEVICE GENERAL DESCRIPTION</b>	<b>20</b>		
FRONT PANEL	20		
REAR PANEL	21		
<b>1. FIRST DEVICE START</b>	<b>22</b>		
1.1 STARTING YOUR DEVICE - QUICK SETUP	22		
1.2 LOGIN	24		
<b>2. SUMMARY MASK</b>	<b>26</b>		
2.1 SYSTEM	27		
2.2 AUDIO MODULE	29		
2.3 OUTPUT MODULE	31		
		2.4 MULTIMEDIA MODULE	32
		<b>3. MENU</b>	<b>34</b>
		3.1 HOME	34
		3.2 AUDIO INPUT	35
		3.2.1 SOURCES	35
		3.2.2 AUDIO SELECTOR	46
		3.3 AUDIO OUTPUT	48
		3.3.1 DIGITAL 1&2	48
		3.3.2 ANALOG	49
		3.3.3 STREAMING MONITOR	49
		3.1 MPX	50
		3.2 MULTIMEDIA	50
		3.2.1 SOURCES	50
		3.2.2 CHANGEOVER	56
		3.2.3 STREAM ENCODER	57
		3.3 USERS	63
		3.3.1 USER CLASS – USER RIGHTS TO LOGIN THE SYSTEM	64
		3.3.2 ADDING A NEW USER	66
		3.3.3 REMOVING AN EXISTING USER.	66
		3.4 SYSTEM SETTINGS	68
		3.4.1 GENERAL SETUP	68
		3.4.2 NETWORK	70
		3.4.3 NTP	76
		3.4.4 SNMP	78
		3.4.5 SMTP	79

3.4.6	<i>GPIO</i>	81
3.4.7	<i>GPS</i>	84
3.4.8	<i>SYSTEM TOOLS</i>	85
3.1	SAVE/LOAD CONFIG.	91
3.1.1	<i>TO/FROM MEMORY ( SAVE/LOAD CONFIG. )</i>	91
3.2	LOGS	92
3.2.1	<i>USERS LOGS</i>	92
3.2.2	<i>EVENTS LOGS</i>	92
3.2.3	<i>NOTIFICATIONS LOGS</i>	92
3.3	DATA RECORDER	93
3.3.1	<i>SETTINGS</i>	93
<b>4.</b>	<b>TECHNICAL SPECS</b>	<b>94</b>
<b>5.</b>	<b>WEEE DIRECTIVE – INFORMATIVA RAEE</b>	<b>98</b>
<b>6.</b>	<b>WARRANTY</b>	<b>99</b>
	<b>DECLARATION OF CONFORMITY – FOX 3</b>	<b>100</b>
	<b>DICHIARAZIONE DI CONFORMITA' – FOX 3</b>	<b>101</b>

# **SAFETY WARNINGS / ISTRUZIONI PER LA SICUREZZA**

---

**SAFETY WARNINGS**

**CONSIGNES DE SÉCURITÉ IMPORTANTES**

**ISTRUZIONI IMPORTANTI PER LA SICUREZZA**

**WICHTIGE SICHERHEITSHINWEISE**

**INSTRUCCIONES IMPORTANTES DE SEGURIDAD**

(Rel. 1.6)

---

## PREFACE

---

**For your own safety and to avoid invalidation of the warranty all text marked with these Warning Symbols should be read carefully.  
all the texts marked with the Warning Symbols.**



---

Information in this manual is subject to change without notice and does not represent a commitment on the part of the vendor. The manufacturer shall not be liable for any loss or damage whatsoever arising from the use of information or any error contained in this manual, or through any misoperation or fault in hardware contained in the product.

It is recommended that all maintenance and service on the product should be carried out by the manufacturer or its authorised agents. The manufacturer cannot accept any liability whatsoever for any loss or damage caused by service, maintenance, or repair by unauthorised personnel

## SAFETY WARNINGS

*The installation and servicing instructions in this manual are for use by qualified personnel only.*

**Read All Instructions.** All safety and operating instructions must be read before operating the product. They also must be retained for future reference, as it contains several useful hints for determining the best combination of equipment settings for Yr particular application.

**Heed All Warnings.** All warnings on the product and those listed in the operating instructions must be adhered to.

**Heat.** This product must be situated away from any heat sources such as radiators or other products (including power amplifiers or transmitters) that produce heat.

**Power Sources.** This product must be operated from the type of power source indicated on the marking label and in the installation instructions. If you are not sure of the type of power supplied to your facility, consult your local power company. Make sure the AC main voltage corresponds to that indicated in the technical specifications. If a different voltage (ex. 110/115 VAC) is available, open the equipment closure and set the voltage switch on the main supply circuit, located behind the AC socket.

**Power Cord Protection.** Power supply cords must be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to the cords at AC wall plugs and convenience receptacles, and at the point where the cord plugs into the product.

**Use only with a cart,** stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

**Lightning.** For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods, unplug it from the AC wall outlet and the audio connections. This will prevent damage to the product due to lightning and power-line surges.

**Installation.** Configuration and installation should only be carried out by a competent installation engineer.

**Cabling.** Using high-quality wires, well-protected. Make sure the cable is integrity.



This symbol alerts you to the presence of dangerous voltage inside the closure – voltage that may be sufficient to constitute a risk of shock. Do not perform any servicing other than that contained in the operating instructions. Refer all servicing to qualified personnel.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Do not change the voltage setting or replace the main fuse without first turning the unit off and unplugging the main cord.



Make sure the AC main voltage corresponds to that indicated in the technical specifications.

**THIS APPARATUS MUST BE EARTHED!**



To avoid the risk of fire use the correct value fuse, as indicated on the label stuck on the right side of the unit.



This apparatus uses a single-pole main switch and does therefore not separate the unit completely from the main power. To completely separate from the main power (f.i. in the event of danger) unplug the power cord. As the main plug is disconnected from the device, the disconnected device shall remain readily operable.

## CONSIGNES DE SÉCURITÉ IMPORTANTES

**Lire ces consignes.**

**Conserver ces consignes.**

**Observer tous les avertissements.**

**Suivre toutes les consignes.**

**Ne pas utiliser cet appareil à proximité de l'eau.**

**Ne pas obstruer les ouvertures de ventilation.** Installer en respectant les consignes du fabricant.

**Ne pas installer à proximité d'une source de chaleur** telle qu'un radiateur, une bouche de chaleur, un poêle ou d'autres appareils (dont les amplificateurs) produisant de la chaleur.

**Ne pas annuler la sécurité de la fiche de terre**, la troisième branche est destinée à la sécurité. Si la fiche fournie ne s'adapte pas à la prise électrique, demander à un électricien de remplacer la prise hors normes.

**Protéger le cordon d'alimentation** afin que personne ne marche dessus et que rien ne le pince, en particulier aux fiches, aux prises de courant et au point de sortie de l'appareil.

**Utiliser uniquement les accessoires spécifiés par le fabricant.**

**Utiliser uniquement avec un chariot**, un support ou une table spécifié par le fabricant ou vendu avec l'appareil. Si un chariot est utilisé, déplacer l'ensemble chariot–appareil avec précaution afin de ne pas le renverser, ce qui pourrait entraîner des blessures.

**Débrancher l'appareil** pendant les orages ou quand il ne sera pas utilisé pendant longtemps.

**Confier toute réparation à du personnel qualifié.** Des réparations sont nécessaires si l'appareil est endommagé d'une façon quelconque, par exemple: cordon ou prise d'alimentation endommagé, liquide renversé ou objet tombé à l'intérieur de l'appareil, exposition de l'appareil à la pluie ou à l'humidité, appareil qui ne marche pas normalement ou que l'on a fait tomber.

**NE PAS exposer cet appareil aux égouttures et aux éclaboussures.** Ne pas poser des objets contenant de l'eau, comme des vases, sur l'appareil.





**Ce symbole indique la présence d'une tension dangereuse dans l'appareil constituant un risque de choc électrique.**



**Ce symbole indique que la documentation fournie avec l'appareil contient des instructions d'utilisation et d'entretien importantes.**



**Avant de modifier le commutateur de changement de tension ou remplacer le fusible il faut débrancher l'appareil de la prise électrique. Pendant son usage, l'appareil doit être branché à la prise de terre.**



**Utiliser le fusible principal AC avec la valeur qui est indiquée sur l'étiquette collée sur le coffret.**



**Assurez-vous que la tension principale AC correspond à celle indiquée dans les spécifications techniques.**



**L'interrupteur d'alimentation interrompt un pôle du réseau d'alimentation excepté le conducteur de terre de protection. En cas de danger, débrancher le cordon d'alimentation. Parce que la prise du réseau de alimentation est utilisée comme dispositif de déconnexion, ce dispositif doit demeurer aisément accessible.**

## ISTRUZIONI IMPORTANTI PER LA SICUREZZA

**Leggere le presenti istruzioni.**

**Conservare queste istruzioni.**

**Osservare tutte le avvertenze.**

**Seguire scrupolosamente tutte le istruzioni.**

**Non usare questo apparecchio in prossimità di acqua.**

**Non ostruire alcuna apertura per il raffreddamento.** Installare l'apparecchio seguendo le istruzioni.

**Non installare l'apparecchio accanto a fonti di calore** quali radiatori, aperture per l'afflusso di aria calda, forni o altri apparecchi (amplificatori inclusi) che generino calore.

**Non rimuovere il terminale di connessione a terra sul cordone di alimentazione:** esso ha lo scopo di tutelare l'incolumità dell'utilizzatore. Se la spina in dotazione non si adatta alla presa di corrente, rivolgersi ad un elettricista per far eseguire le modifiche necessarie.

**Evitare di calpestare il cavo di alimentazione o di comprimerlo,** specialmente in corrispondenza della spina e del punto di inserzione sull'apparato.

**Utilizzare solo dispositivi di collegamento e gli accessori specificati dal produttore.**

**Utilizzare l'apparecchio** solo con un carrello, un sostegno, una staffa o un tavolo di tipo specificato dal produttore o venduto insieme all'apparecchio. Se si utilizza un carrello, fare attenzione negli spostamenti per evitare infortuni causati da ribaltamenti del carrello stesso.

**Scollegare l'apparecchio dalla presa di corrente** durante i temporali o quando inutilizzato a lungo.

**Per qualsiasi intervento,** rivolgersi a personale di assistenza qualificato. È necessario intervenire sull'apparecchio ogniqualvolta si verificano danneggiamenti di qualsiasi natura. Ad esempio, la spina o il cavo di alimentazione sono danneggiati, è entrato liquido nell'apparecchio o sono caduti oggetti su di esso, l'apparecchio è stato esposto alla pioggia o all'umidità, non funziona normalmente o è caduto.

**Non esporre a gocciolamenti o spruzzi.** Non appoggiare sull'apparecchio oggetti pieni di liquidi, ad esempio vasi da fiori.



Questo simbolo indica la presenza di alta tensione all'interno dell'apparecchio, che comporta rischi di scossa elettrica.



Questo simbolo indica la presenza di istruzioni importanti per l'uso e la manutenzione nella documentazione in dotazione all'apparecchio.



Non sostituire il fusibile o cambiare la tensione di alimentazione senza aver prima scollegato il cordone di alimentazione. **L'APPARATO DEVE ESSERE CONNESSO A TERRA.**



Sostituire il fusibile generale con uno di identico valore, come indicato sulla etichetta applicata sul mobile dell'apparato



Assicurarsi che la tensione di rete corrisponda a quella per la quale è configurato l'apparecchio.



Questo apparato utilizza un interruttore di alimentazione di tipo unipolare e l'isolamento dalla rete elettrica non è pertanto completo. Per ottenere un isolamento totale (ad esempio in caso di pericolo), scollegare il cordone di alimentazione. Inoltre, poichè la spina di alimentazione è utilizzata come dispositivo di sezionamento, essa deve restare facilmente raggiungibile.

## WICHTIGE SICHERHEITSHINWEISE

**Diese Hinweise LESEN.**

**Diese Hinweise AUFHEBEN.**

**Alle Warnhinweise BEACHTEN.**

**Alle Anweisungen BEFOLGEN.**

**Dieses Gerät NICHT in der Nähe von Wasser verwenden.**

**KEINE Lüftungsöffnungen verdecken.** Gemäß den Anweisungen des Herstellers einbauen.

**Nicht in der Nähe von Wärmequellen,** wie Heizkörpern, Raumheizungen, Herden oder anderen Geräten (einschließlich Verstärkern) installieren, die Wärme erzeugen.

**Die Schutzfunktion des Schukosteckers NICHT umgehen.** Bei Steckern für die USA gibt es polarisierte Stecker, bei denen ein Leiter breiter als der andere ist; US-Stecker mit Erdung verfügen über einen dritten Schutzleiter. Bei diesen Steckerausführungen dient der breitere Leiter bzw. der Schutzleiter Ihrer Sicherheit. Wenn der mitgelieferte Stecker nicht in die Steckdose passt, einen Elektriker mit dem Austauschen der veralteten Steckdose beauftragen.

**VERHINDERN, dass das Netzkabel gequetscht oder darauf getreten wird,** insbesondere im Bereich der Stecker, Netzsteckdosen und an der Austrittsstelle vom Gerät.

**NUR das vom Hersteller angegebene Zubehör** und entsprechende Zusatzgeräte verwenden.

**NUR in Verbindung** mit einem vom Hersteller angegebenen oder mit dem Gerät verkauften Transportwagen, Stand, Stativ, Träger oder Tisch verwenden. Wenn ein Transportwagen verwendet wird, beim Verschieben der Transportwagen-Geräte- Einheit vorsichtig vorgehen, um Verletzungen durch Umkippen.

**Das Netzkabel dieses Geräts** während Gewittern oder bei längeren Stillstandszeiten aus der Steckdose ABZIEHEN.

**Alle Reparatur- und Wartungsarbeiten** von qualifiziertem Kundendienstpersonal DURCHFÜHREN LASSEN. Kundendienst ist erforderlich, wenn das Gerät auf irgendeine Weise beschädigt wurde, z.B. wenn das Netzkabel oder der Netzstecker beschädigt wurden, wenn Flüssigkeiten in das Gerät verschüttet wurden oder Fremdkörper hineinfließen, wenn das Gerät Regen oder Feuchtigkeit ausgesetzt war, nicht normal funktioniert oder fallen gelassen wurde.

**Dieses Gerät vor Tropf- und Spritzwasser SCHÜTZEN.** KEINE mit Wasser gefüllten Gegenstände wie zum Beispiel Vasen auf das Gerät STELLEN.



Dieses Symbol zeigt an, dass gefährliche Spannungswerte, die ein Stromschlagrisiko darstellen, innerhalb dieses Geräts auftreten.



Dieses Symbol zeigt an, dass das diesem Gerät beiliegende Handbuch wichtige Betriebs- und Wartungsanweisungen enthält.



Vor Änderung der Netzspannung oder Sicherungswechsel Netzkabel trennen.  
Das Gerät muss für den Betrieb geerdet werden.



Hauptsicherung nur mit einer gleichwertigen austauschen  
(s. entsprechende Etikette).



Vor Einschalten Netzspannungseinstellung am Gerät überprüfen bzw. anpassen.



Inpoliger Netzschalter. In Notfälle oder für Wartungsarbeiten Netzkabel trennen. Der Netzstecker fungiert auch als Trennelement muss deshalb zugänglich bleiben.

## INSTRUCCIONES IMPORTANTES DE SEGURIDAD

**LEA** estas instrucciones.

**CONSERVE** estas instrucciones.

**PRESTE ATENCION** a todas las advertencias.

**SIGA** todas las instrucciones.

**NO** utilice este aparato cerca del agua.

**NO obstruya ninguna de las aberturas de ventilación.** Instálese según lo indicado en las instrucciones del fabricante.

**No instale el aparato cerca de fuentes de calor** tales como radiadores, registros de calefacción, estufas u otros aparatos (incluyendo amplificadores) que produzcan calor.

**NO anule la función de seguridad del enchufe polarizado** o con clavija de puesta a tierra. Un enchufe polarizado tiene dos patas, una más ancha que la otra. Un enchufe con puesta a tierra tiene dos patas y una tercera clavija con puesta a tierra. La pata más ancha o la tercera clavija se proporciona para su seguridad. Si el toma corriente no es del tipo apropiado para el enchufe, consulte a un electricista para que sustituya el toma corriente de estilo anticuado.

**PROTEJA el cable eléctrico** para evitar que personas lo pisen o estrujen, particularmente en sus enchufes, en los toma corrientes y en el punto en el cual sale del aparato.

**UTILICE únicamente los accesorios especificados por el fabricante.**

**UTILICESE únicamente** con un carro, pedestal, escuadra o mesa del tipo especificado por el fabricante o vendido con el aparato. Si se usa un carro, el mismo debe moverse con sumo cuidado para evitar que se vuelque con el aparato.

**DESENCHUFE el aparato** durante las tormentas eléctricas, o si no va a ser utilizado por un lapso prolongado.

**TODA reparación** debe ser llevada a cabo por técnicos calificados. El aparato requiere reparación si ha sufrido cualquier tipo de daño, incluyendo los daños al cordón o enchufe eléctrico, si se derrama líquido sobre el aparato o si caen objetos en su interior, si ha sido expuesto a la lluvia o la humedad, si no funciona de modo normal, o si se ha caído.

**NO esponga** este aparato a chorros o salpicaduras de líquidos. **NO** coloque objetos llenos con líquido, tales como floreros, sobre el aparato .



**Este símbolo indica que la unidad contiene niveles de voltaje peligrosos que representan un riesgo de choques eléctricos.**



**Este símbolo indica que la literatura que acompaña a esta unidad contiene instrucciones importantes de funcionamiento y mantenimiento.**



**Antes de cambiar la alimentación de voltaje o de cambiar el fusible, desconecte el cable de alimentación. Para reducir el riesgo de descargas eléctricas, esta unidad debe ser conectada a tierra.**



**Replazae el fusible con lo mismo, que corresponde a lo indicado en el panel del equipo.**



**Antes de encender, controlar que la línea de alimentación de voltaje corresponda a la indicada.**



**El interruptor de alimentación es unipolar. En el caso de peligro, desconecte el cable de alimentación. Porque la clavija de conexión a red sirve por la desconexión de la unidad, la clavija debe ser ubicada en proximidad de la unidad.**

## UNPACKING AND INSPECTION

Your equipment was packed carefully at the factory in a container designed to protect the unit during shipment. Nevertheless, we recommend making a careful inspection of the shipping carton and the contents for any signs of physical damage.

### Damage & Claims

If the damage is evident, do not discard the container or packing material. Contact your carrier immediately to file a claim for damages. Customarily, the carrier requires you, the consignee, to make all damage claims. It will be helpful to retain the shipping documents and the waybill number.

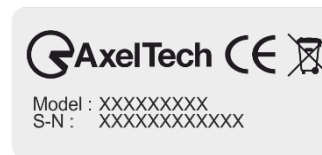
Save all packing materials! If You should ever have to ship the unit (e.g. for servicing), it is best to ship it in the original carton with its packing materials because both the carton and packing material have been carefully designed to protect the unit.

Under normal conditions, no user maintenance or calibration is required. Internal links and preset controls may be set to configure the unit during installation. Any service work required should be carried out by qualified service personnel only.

We can offer further product support through our worldwide network of approved dealers and service agents.

To help us provide the most efficient service please would you keep a record of the unit serial number and date and place of purchase to be quoted in any communication regarding this product.

The actual equipment Serial Number is indicated on the silver label stuck on the rear panel of the equipment closure.



### Tools And Equipment Needed

Only standard technicians' tools are required to install this equipment.



# FIRST INSTALLATION RECOMMENDATIONS

## POWER SUPPLY CABLE

A power supply cable of approx. 2 mt lengths is supplied with the device, which has a molded IEC plug attached – this is a legal requirement. The type of plug for the power supply depends on the country in which it is delivered.

If for any reason, you need to use this appliance with a different plug, you should use the following wiring guidelines in replacing the existing plug with the new one:

<b>Earth</b>	Green, or green and yellow
<b>Neutral (N)</b>	Blue
<b>Live (L)</b>	Brown

Supply cables should be laid in such a manner that one does not step or walk on them. They should not be squashed by any objects.

### THIS EQUIPMENT MUST BE EARTHED.

The chassis is always connected to the main earth to ensure your safety: check your main wiring and earthing before switching on.

## PROTECTION AGAINST LIGHTNING



Should the device be put out of action due to being struck by lightning or excess voltage, disconnect it from the power supply without delay. Do not reconnect until the device has been checked. If in doubt contact the technical support service.

Make sure there is suitable lightning protection to protect the device. Alternatively, you should disconnect all connectors from the device during a storm or when the device is going to be unsupervised or not used for a longer period.

These measures will protect against damage by lightning or excess voltage.

## VENTILATION

The equipment will operate as a free-standing unit without requiring any special cooling arrangement. However, slots and openings in the product are provided for ventilation. They ensure the reliable operation of the product, keeping it from overheating. These openings must not be blocked nor covered during operation.

YOU MUST LEAVE AT A MINIMUM ONE RACK UNIT OF EMPTY SPACE ABOVE THE EQUIPMENT TO ENHANCE VENTILATION AND TO GET A LONGER EQUIPMENT LIFE.

## DEVICE INSTALLATION

### Best setup location

The device should be installed in a 19" rack. Avoid direct sunlight, close proximity to radiators and air conditioning, dust, water, and chemicals. Choose a rack location that permits a clear view of the indicators on the device and ensures a sufficient heat dissipation of the device.

### Power supply

The device is designed for operation with 100 to 240 V AC, 50 Hz to 60 Hz. Check the corresponding device labeling for compatibility with the domestic line voltage and frequency before connecting the IEC power connector to the main supply!



#### WARNING

Disconnect the main power plug before you open the housing. Repair of the equipment must only be carried out by authorized and qualified personnel.

<p>Power Supply</p>	<p>Please make sure that the device and the contained fuse(s) (please see p. 20) are compatible with the domestic line voltage and frequency. If the device is compatible, connect the power supply cord fully to the IEC power connector at the rear side of the device and a mains power outlet. The LCD Screen will then turn on.</p>
<p>Network configuration</p>	<p>For delivery, the device is configured with default settings for the first connection via the IP interface.</p>
<p>Connect to network</p>	<p>Connect a network patch cable to the “10/100-Base-T” connector on the rear side of the device and your existing IP network.</p>
<p>Web interface</p>	<p>The device can be fully operated with an internet browser via the integrated web interface. Use a computer that is connected to the same IP network that the device is connected to. Start an internet browser, Firefox/Mozilla &gt;V2.0 Google Chrome both with Java Script activated, and enter the configured IP address in the address bar of the browser. If the IP address has not been changed in step 2, please enter the default address in the address bar of the browser: <a href="#">192.168.120.120</a>.</p>
<p>Ready!</p>	<p>These first steps are only intended for a quick first start and do not cover all device functions. Please read carefully the entire manual to be able to use all functions of the device.</p>
<p>Important note on the Username and password</p>	<p>The equipment comes out from <b>Axel Technology</b> with a standard username: <a href="#">admin</a> and password: <a href="#">admin</a>                  Each time a NEW user, with administration rights, is created, the user <b>admin</b> disappears and is replaced by the new one just created. If all users are deleted, the standard admin–admin comes out again</p>

# DEVICE GENERAL DESCRIPTION

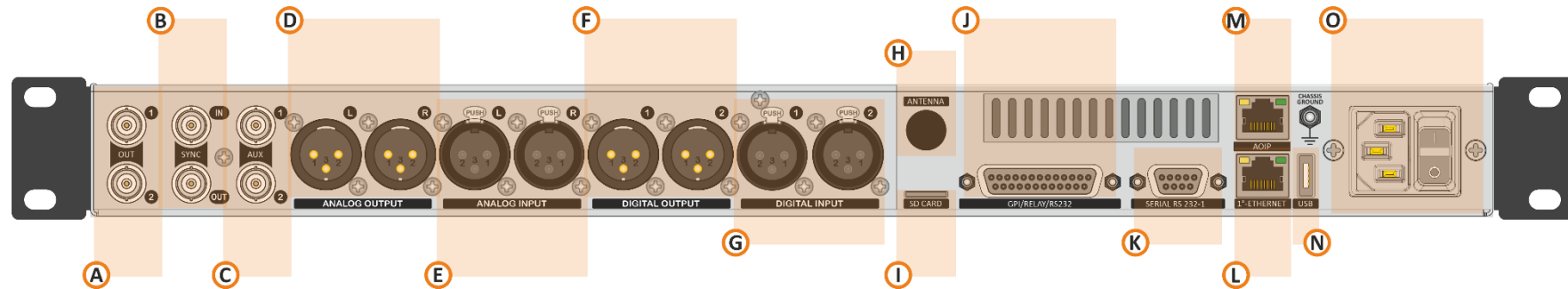
## FRONT PANEL



- Mechanical Steel, 1U - 19 " rack standard.
- USB Port - Type A.
- TFT Color Graphic Display 480x128 (not included in X6).
- Jog Shuttle (not included in X6).
- 40 Led Alarms.
- Headphone Jack 6.3mm Female Connector.

## REAR PANEL

### FOX 3



- A. 2 BNC output: not used.
- B. 2 BNC SYNC connections: IN and OUT.
- C. 2 BNC input connections: AUX-1 and AUX-2.
- D. 2 XLR male: Analog stereo output.
- E. 2 XLR female: Analog stereo input.
- F. 2 Digital stereo output.
- G. 2 Digital stereo input.
- H. 1 BNC antenna connection input (OPTIONAL).
- I. Micro SD Card Slot.
- J. GPIO Port with 6 optocouplers and 4 relays on DB25 PIN Female connector.
- K. 1 serial port RS232 on DB9.
- L. Ethernet port over Rj45 connectors.
- M. Rj45 connectors: AOIP for DANTE network (OPTIONAL).
- N. USB port - Type A.
- O. Universal Power Supply 90Vac - 240Vac 50/60Hz.

# 1. FIRST DEVICE START

After important setting changes we suggest, you always reboot the device (For example: after a device upgrade, or changes on IP address).

## 1.1 STARTING YOUR DEVICE - QUICK SETUP

Turn **ON** the device with the power switch, on the rear panel:

Connect the device to your **LAN** with an ETHERNET CABLE. Your device could be controlled by one of the following methods:

1. The device could be controlled by a web page on your browser. In the address field of your browser, type the default IP address:  
**192.168.120.120** You will see the Home Page:
2. We provided you with a small WIFI USB KEY. Connect it inside one of the USB ports of the device. **If you have more than a WIFI USB KEY connect once a time:**
  - a. Search for the following WIFI connection with your mobile phone, tablet, or WIFI pc: **Config\_AP**
  - b. Connect to **Config\_Ap**
  - c. The password is **12345678**
  - d. The device could be controlled by a web page on one of your browsers. Open a browser inside your mobile phone, tablet, or wifi pc, and in the address field type whatever URL you want.

**N.B.:** do not type any *HTTPS* URLs.

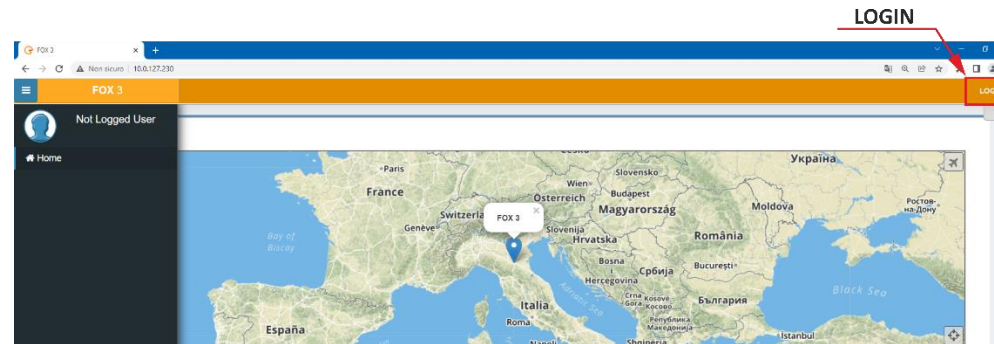
### DEVICE TEMPORARY IP ASSIGNMENT

<p>Take a standard USB key</p>	
<p>Inside the USB key create a new txt file - The file name must be exactly: <b>NetworkTEMPConfig.txt</b></p>	
<p>Edit NetworkTEMPConfig.txt and write inside the temporary IP you want to set for your device. The syntax has to be: <b>IP/24</b></p>	<p>Example: <b>192.168.0.14/24</b></p>
<p>Insert the USB key into the USB Port of the device's front panel</p>	
<p>Open your browser and insert the IP in the URL address. If you plug out the IP you lose the temporary IP. (in this example we have set the 192.168.0.14 IP, but you can decide freely)</p>	

## 1.2 LOGIN

On the **Home Page**, you can find some parameters of your device. To see all parameters and to be able to change them as you want or as your station needs you have to log in with a special Username and password.

Click **LOGIN** at the top-right.



The equipment comes out from Axel Technology with a standard username – the default admin:

Username: **admin** (case sensitive)

password: **admin** (case sensitive)

**NB:** Each time a NEW user, with administration rights is created, the user **admin** disappears and is replaced by the new one just created. If all users are deleted, the default admin comes out again, to create and enter the device settings.

You will see the Login mask as shown in this picture:

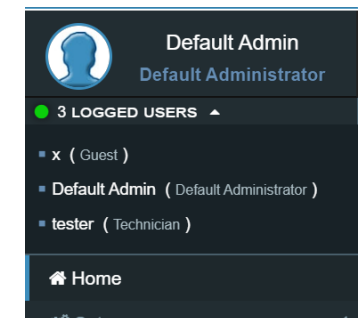
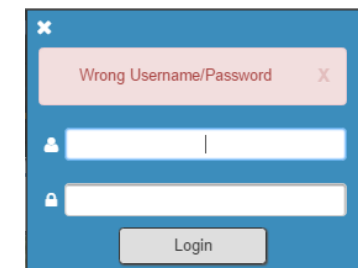
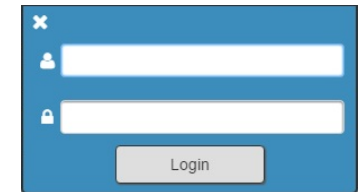
In the first field type for your **Username**, and in the second one type for the **Password**. Then click on **Login**.

If you see the following message, you typed a wrong **Username** or a wrong **Password**.

Type them again and retry.

When you logged you will be able to see the **MENU** list at the left side of the web page. As this figure shows, you can see how many persons are logged in on this device at this moment. Also appear the level of this account like (guest, user, admin, full administrator....).

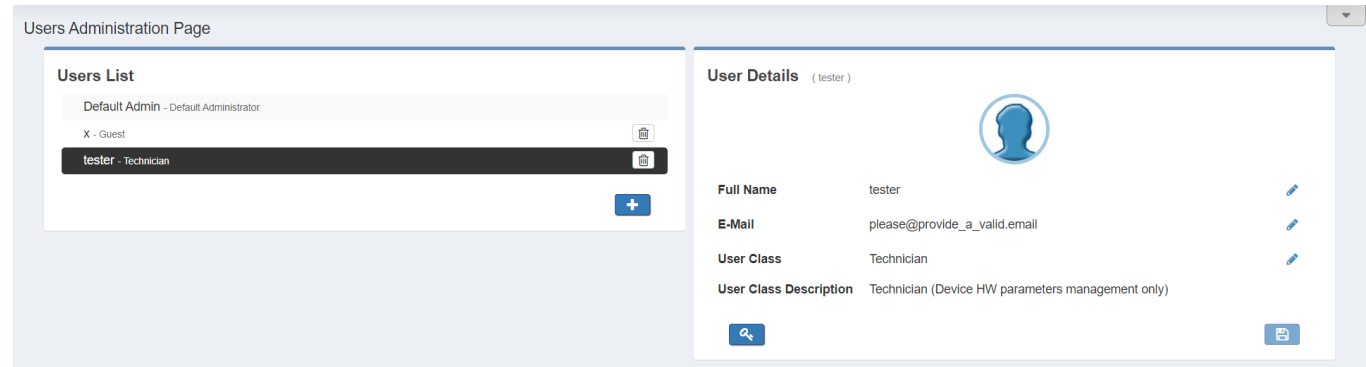
**Note:** This information is only available for logged-in users.





From the **Administration Page**, you can manage all the users and the user classes. You can create or delete users by choosing between the available user classes:

- Full Administrator**
- User Administrator**
- Device Administrator**
- Technician**
- Broadcaster**
- Guest**



**Full Administrator**

The Full Administrator manages all user-profiles and accesses all pages (except the calibration).

**Default Administrator (Default User):** The default administrator is the default user of the device, it is under the Full Administrator category, but it has fixed access credentials (user: admin – pwd: admin). This **DEFAULT ADMIN** is available only when the system has no other Full Administrators.

**User Administrator**

This user can only manage users. He can create or destroy users or modify their characteristics.

**Device Administrator**

This user can access all target parameters, but he can't manage users.

**Technician**

This user can manage functional target parameters only (e.g. port configurations or signal levels).

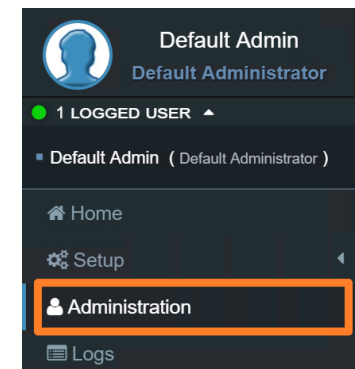
**Broadcaster**

This user can manage **content** target parameters only (e.g. Radiotext messages).

**Guest/Reader**

Guest accesses anywhere without being able to edit any parameter.

**Note:** Non-administrator account may not able to see some parts of MENU, like (administration). Once you are logged in, you will see the home page as shown in the following picture. The left-tree menu could be different for different user classes.



## 2. SUMMARY MASK

At the top of the page you can see a fast summary mask with all the current parameters and warnings as shown in the following picture:

1. **SYSTEM MODULE:** you can read from this part the most important system of data management.
2. **AUDIO MODULE:** from this part, you can read the most important audio sources and output settings.
3. **OUTPUT MODULE:** here we can monitor the digital or analog audio outputs.
4. **MULTIMEDIA MODULE:** from this part, you can read the multimedia sources.
5. From this **slide banner**, you can select which sections of the mask you want to view or hide.

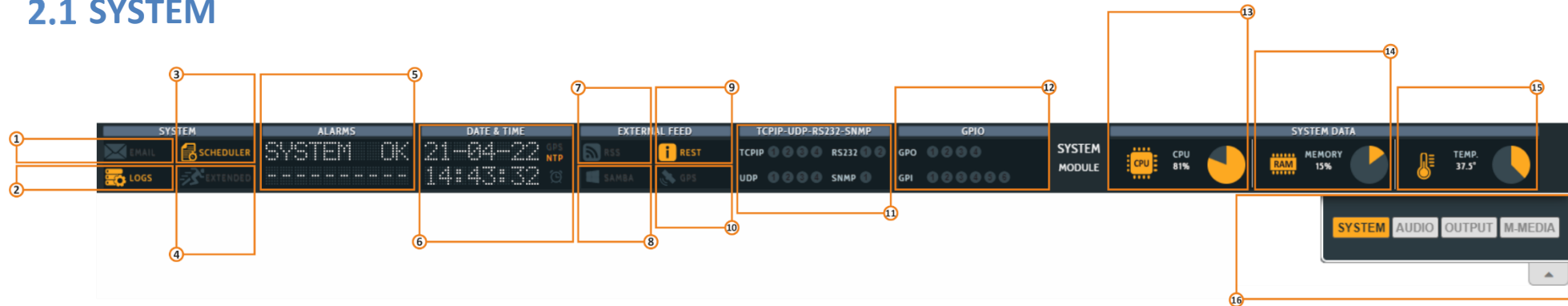


To show or hide the MODULE's canvas, Open the slide bar button under the SUMMARY MASK as shown in the next figure.

In this section can find all information about the device like name, location, IP, Firmware version, and serial number. The Target Localization module provides detection of a specified target (device location) it is used in the case that you have many RDS service points.

To modification these parameters go to [MENU > Home > System Settings > General Setup](#).

## 2.1 SYSTEM

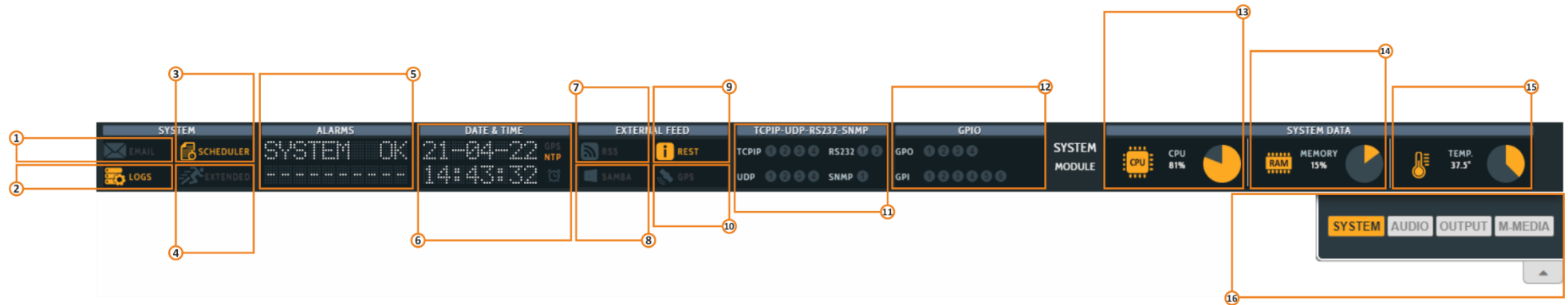


- 1. Email enabled (SMTP):** By active this service the device will send you critical reports by E-Mail scheduled. You can activate it from: [MENU > Home > System Settings > SMTP](#).
- 2. LOGS status LED.**
- 3. Scheduler status.**
- 4. Extended status** (not available on FOX)
- 5. ALARMS:** The alarms that turn in this field are, **NTP Alarm**, **GPS Alarm**, and **SMB Alarm**.
  - To see them, the relative alarms must be [unmasked](#).
  - And an error condition must be [created](#).
- 6. Here can view the Date and Time.**

Indicator of active/not active **NTP** Server (Network Time Protocol) go to: [MENU > Home > System Settings > NTP > Ntp On](#).

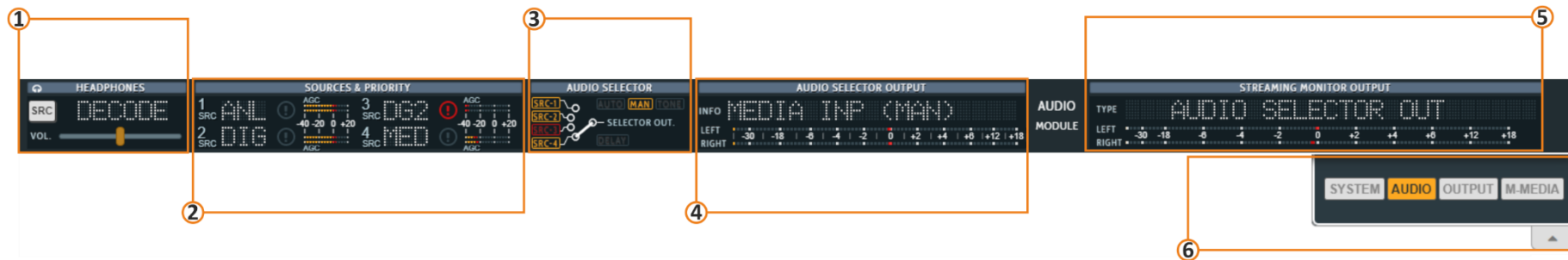
Indicator of active/not active **GPS** device (Global Positioning System) go to: [System Settings > GPS > General Settings > GPS On](#).

Indicator of active/not active **UTC** (Universal Time Coordinated) go to: [MENU > Home > System Settings > GPS > Get UTC from GPS](#).
- 7. RSS FEED Status.**



8. **SAMBA server Status:** From here can verify if the **SMB protocol/SAMBA server** is active. This does not indicate the connection status to the server.  
To active it, follows these steps: *MENU > Home > System Settings > General Setup > SMB/SAMBA Share Settings*.
9. **REST API Status:** Representational state transfer (REST) is a software architectural style that defines a set of constraints to be used for creating Web services. To change it go to *MENU > Home > System Settings > General setup > rest settings*.
10. **GPS:** . This does not indicate the connection status. to enable/disable it go to *MENU > Home > System Settings > GPS*.
11. **TCPIP:** You can set this device to a maximum of **3 TCP/IPv4** and **2 TCP/IPv6**.  
**SERIALS:** You can connect the device to a maximum of 2 Serial devices.  
**UDP:** You can connect the device to a maximum of 4 UDP devices. The related led lights up when UECP packets are received.  
**SNMP:** (Simple Network Management Protocol) The lights up when SNMP UECP packets are received.
12. **GPO:** You can connect the device to a maximum of 4 GPO devices (GPO1, GPO2, GPO3, GPO4). These LEDs indicate the status of the related GPO device. To set GPO settings go in *MENU > Home > System Settings > GPIO > GPO (1/2/3/4)* and in *MENU > Home > System Settings > GPIO > GPO Event Notification*. GPO1, GPO2, GPO3, GPO4.  
**GPI:** you can connect a maximum of 6 GPI devices. These LEDs light up when the related GPI device is turned on.
13. Here you can view the statistics connected with the **CPU** usage.
14. Here you can view the statistics connected with **Memory** usage.
15. Here you can view the statistics connected with the system **temperature**.
16. From this slide **banner**, you can select which sections of the mask you want to view.

## 2.2 AUDIO MODULE



### 1. HEADPHONES

Here you can set the Headphones level and the Source. To change the Headphone Source, click on the **SRC button** until you reach the desired source. To change the level, move the horizontal slider. You can select between **ANALOG**, **DIGIT1** (digital-1), **DIGIT2** (digital-2), **AUDSEL** (Audio Selector), **WBPROC** (WIDE-BAND PROCESSOR), **DECODE** (MPX DECODER), **MMEDIA** (MULTIMEDIA), **COMP** (COMPOSIT).

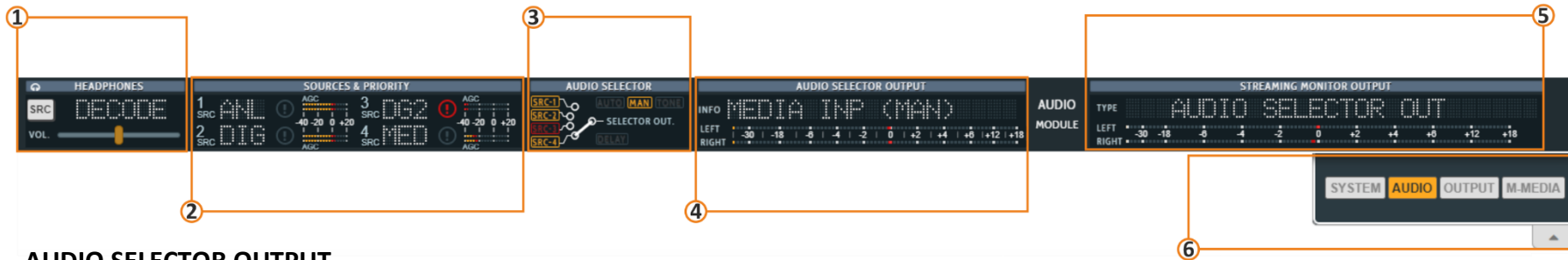
### 2. SOURCES & PRIORITY

Here you can have an overview of the 4 audio sources and levels of the audio changeover. To change **SRC-1**, ....., **SRC-4** go to [Audio Input > Audio Selector > Sources](#).

### 3. AUDIO CHANGEOVER

Here you can see which audio source is selected by the **Audio-Changeover**. You can see if the Audio-Changeover is in Automatic mode, Manual mode or if it is selecting the Tone Generator.

- To select the Audio Changeover Mode, go to [Audio Input > Audio Selector > Configuration > Mode](#). You can choose between **Source1**(manual mode), **Source2**(manual mode), **Source3**(manual mode), **Source4**(manual mode), **Generator**(tone), and **Automatic Changeover**.
- To set the milliseconds of the delay go to [Audio Input > Changeover > Audio Changeover > Delay Time](#).



#### 4. AUDIO SELECTOR OUTPUT

From this section, you can view the selection made by the audio changeover, the audio changeover mode, and levels.

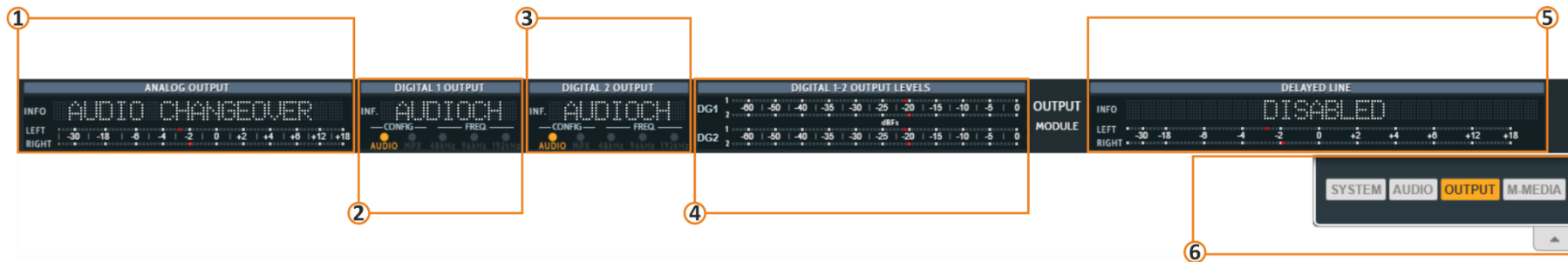
- To set the Audio Changeover Mode go to [Audio Input > Audio Selector > Configuration > Mode](#). Here you can choose **AUTO** for an automatic choice between the valid sources, or you can force the choice of selecting the desired source. If you select **Generator**, here you will read **REF-TONE xxxkHz**.
- Can change the generator tone frequency **30Hz - 15KHz** from [Audio Input > Sources > Audio Generator > Configuration > Freq.](#)
- To set the **mode** of the tone generator, go to: [Audio Input > Sources > Audio Generator > Configuration > Mode](#).
- And to set the **level** of the tone generator, go to: [Audio Input > Sources > Audio Generator > Configuration > Level](#).
- To change the audio sources for the **Source1, ..., Source4, Generator, or Automatic Changeover** go to: [Audio Input > Audio Selector > Configuration > Mode](#).

#### 5. STREAMING MONITOR OUTPUT

Here you can monitor the source and level of Streaming output.

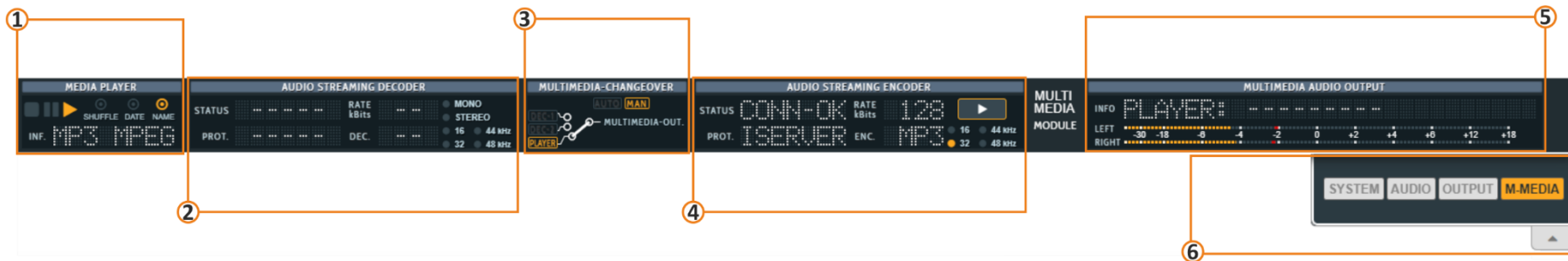
- To select the desired Audio Streaming output source, go to [Audio Output > Streaming Monitor > Configuration > Streaming Monitor Sources](#).
  - To set the Streaming Monitor level go to [Audio Output > Streaming Monitor > Configuration > Streaming Monitor Level](#).
6. From this banner, you can select which sections of the mask you want to view.

## 2.3 OUTPUT MODULE



- 1. ANALOG AUDIO OUTPUT:** here can check the analog audio output left and right. To change the source, go to [MENÙ > Home > Audio Output > Analog](#).
- 2. DIGITAL AUDIO 1:** here can check the digital audio output. To change the source, go to [MENÙ > Home > Audio Output > Digital Output 1 > Source](#). from this path it also can change the **GAIN**.  
From this section can switch the Digital Output Mode between **AES/EBU** or **DANTE**.
- 3. DIGITAL AUDIO 2:** here can check the digital audio output. To change the source, go to [MENÙ > Home > Audio Output > Digital Output 2 > Source](#). from this path it also can change the **Rate** and **Level**.  
From this section can switch the Digital Output Mode between **AES/EBU** or **DANTE**.
- 4. DIGITAL OUTPUT:** From these Bar Meters you can see the **Digital Outputs Level**.
- 5. DELAYED LINE:** here can delay an audio source to be aligned with other sources or you can delay the main output by selecting **OnOutput**. To change the source, go to [MENÙ > Home > Audio Input > Delayed Signal > Source](#).
- 6.** From this banner, you can select which sections of the mask you want to view.

## 2.4 MULTIMEDIA MODULE

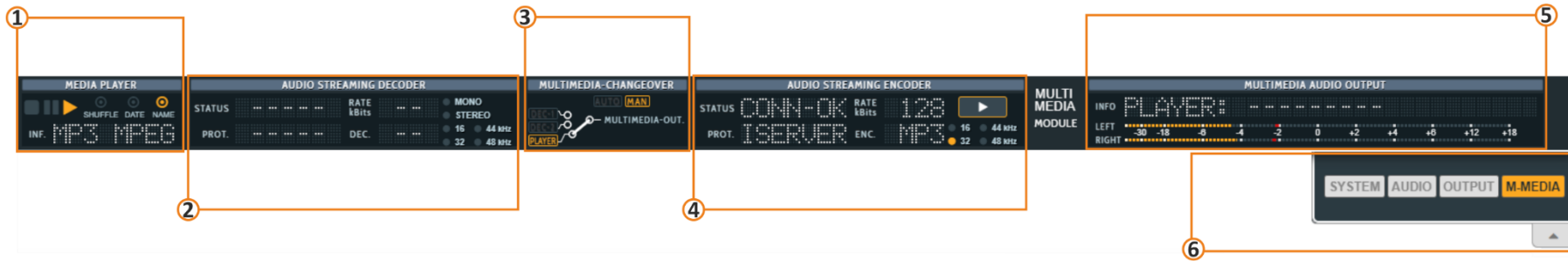


This device contains a **MEDIA PLAYER MODULE**, two Audio Streaming Decoders, and is also equipped with Audio Streaming Encoder. All this function gives you the ability to select your source from various destinations. From Multimedia Changeover you can choose between **Auto**, **Decoder1**, **Decoder2**, or **File Player**.

- 1. MEDIA PLAYER:** It is to play the multimedia files like (MP3, WAV, mp2, OGG VORBIS, AAC, RAW 16bit) by lunch it into the device through the **FTP Client**. The device will automatically create your playlist by **NAME**, **DATA**, or **SHUFFLE** from the path [MENÙ > Home > Multimedia > Play Order](#). The playlist will start playing when the media player is selected by the MULTIMEDIA CHANGEOVER. **INF.** It is to show you the audio compression. The name of the song in the play will show up in section 5 of the canvas.
- 2. AUDIO STREAMING DECODER:** this module is supported by two audio streaming decoders. When one of the decoders is selected by the MULTIMEDIA CHANGEOVER In this section you can monitor the source status. **STATUS:** the status of the decoder is selected by the MULTIMEDIA CHANGEOVER. **PROT.:** network control protocol. **DATA kBits:** the number of bits per second decoded. **DEC.:** Decoding extensions.
- 3. MULTIMEDIA CHANGEOVER:** Here you can monitor your multimedia changeover position and mode AUTO/MANUAL. [Multimedia > Changeover > Configuration](#).







- 4. **AUDIO STREAMING ENCODER:** to monitor the audio encoder status. utilizes a buffering system and a secure data stream platform to allow you and the end-users to listen to full audio files via network.  
**STATUS:** the status of the Encoder.  
**PROT.:** network control protocol.  
**DATA kBits:** the number of bits per second encoded.  
**DEC.:** Decoding extensions.  
**Play button:** this button works only with the last 3 Icecast Server options. [Multimedia > Stream Encoder > Configuration > Mode.](#)
- 5. **MULTIMEDIA AUDIO OUTPUT:** it is to monitor the final audio output of the MULTIMEDIA MODULE.  
**INFO:** show up the source selected and the file name.  
**LEFT/RIGHT:** stereo audio level.
- 6. From this banner, you can select which sections of the mask you want to view.

Stream Encoder Settings ( Multimedia )

Status					
Status	Protocol	Encoder	BitRate	Mode	Freq
Connected	Icecast Server	MP3	128kBits	Stereo	32 KHz

## 3. MENU

### 3.1 HOME

If you resize your browser press the top-left button to open the menu:

From here can display the MENU

The screenshot displays the FOX 3 web interface. At the top, a navigation bar includes a 'MENU' button (indicated by an orange arrow and text), the 'FOX 3' title, and a 'LOGOUT' button. Below the navigation bar is a comprehensive dashboard with various system and audio controls, including sections for SYSTEM, ALARMS, DATE & TIME, EXTERNAL FEED, TCP/IP-UDP-RS232-SNMP, GPIO, SYSTEM DATA, HEADPHONES, SOURCES & PRIORITY, AUDIO SELECTOR, AUDIO SELECTOR OUTPUT, STREAMING MONITOR OUTPUT, ANALOG OUTPUT, DIGITAL 1-2 OUTPUT, DIGITAL 1-2 OUTPUT LEVELS, DELAYED LINE, MEDIA PLAYER, AUDIO STREAMING DECODER, MULTIMEDIA-CHANGEOVER, AUDIO STREAMING ENCODER, and MULTIMEDIA AUDIO OUTPUT. Below the dashboard, the 'Home' section is visible, featuring a 'Target Localization' map of Europe with a marker for 'FOX 3' in Switzerland, and a 'Target References' table with a 'Name' column.

## 3.2 AUDIO INPUT

**COMPLETE SET OF INPUTS**, Extended Changeover/Silence Detector with configurable source priorities out of 11 sources: **1x Analog, 2x AES/EBU, 2x IP, 2x MPX, 1x AES192, 1x Dante\***, **1x MPX over Dante, 1x Internal Player\***.

In this section, you can define parameters connected with (analogic, digital, multimedia, and MPX decoder). The changeover can choose between one of the following sources.

### 3.2.1.1 ANALOG

**Sensitivity:** sensitivity of the input level. (For example: if a signal of -6.00 dBu arrives, this parameter has to be set to -6.00 dBu).

**Mode:**

**Stereo:** the sound is reproduced in both the left and right channels.

**Mono:** the sound is reproduced only in one channel in a monophonic way.

**Mono-Left:** the left channel of the input signal is reproduced in a monophonic way.

**Mono-Right:** the right channel of the input signal is reproduced in a monophonic way.

**Swap Left-Right:** the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in a stereophonic way.

**Inv Left:** the sound is reproduced in a stereophonic way, but the phase of the left channel is inverted.

**Inv Right:** the sound is reproduced in a stereophonic way, but the phase of the right channel is inverted.

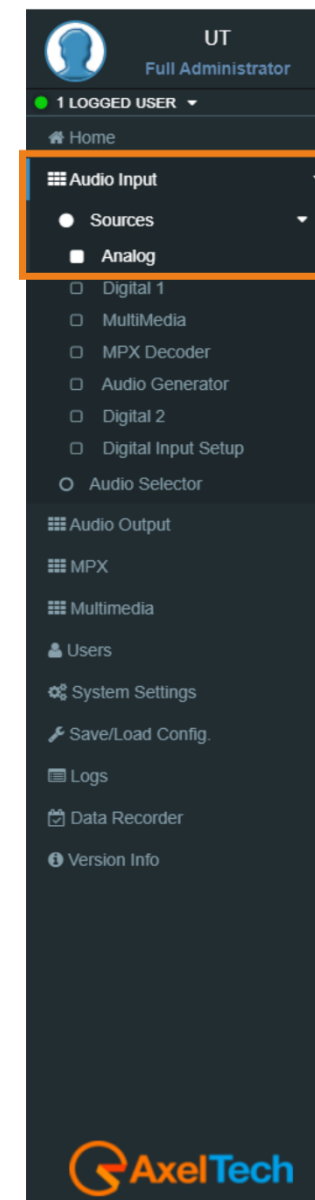
**Input Clipping Point:** moves the clipping point level. If Sensitivity is  $\leq 9$  we suggest keeping the Input Clipping Point=+15 dBu. If Sensitivity  $> 9$  we suggest keeping the Input Clipping Point=+24 dBu.

### AGC

This setting helps balance the audio level. Some of the analog conventional and trunked radio systems do not include components with **AGC Automatic Gain Control** to help normalize the audio levels of analog transmissions in the system. This can result in a low-level audio signal if a user on the system is not speaking close enough to their radio microphone.

**AGC Speed:** gain speed of action.

**AGC Absolute Range:** this parameter rules the maximum gain to apply to the received signal.



## VALIDATION

In this section, it is possible to manage the parameter for the signal validation.

The CHANGEOVER looking at these parameters can consider them valid or not the source.

**Threshold:** the source is considered invalid if the signal is lower than this value for the time selected in the Validation parameter.

**Hysteresis:** the source is considered valid if the signal is higher than  $Threshold + Hysteresis$  for the time typed in *Hold*.

**Failure Time (Hold):** the source is considered valid if the signal is higher than  $Threshold + Hysteresis$  for the time typed here.

**Return Time (Validation):** the source is considered invalid if the signal is lower than  $Threshold$  for the time typed here.

**Audio Failure Search:** This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

For a General Purpose, we suggest choosing **Mode 2**.

For a musical radio, we suggest **Mode 1**.

For talk radio, we suggest **Mode 3**.

**Off:** this function is off.

**Mode 1:** *silence blocks window*=80ms, *Percentage*=10%, *Time*=30secs (Music).

**Mode 2:** *silence blocks window*=120ms, *Percentage*=15%, *Time*=30secs (General Purpose).

**Mode 3:** *silence blocks window*=180ms, *Percentage*=20%, *Time*=30secs (Talk).

**Silence blocks window:** seconds of the single audio hole.

**Percentage:** percentage of *Silence blocks window* that the Changeover has to find in a  $Time=Time$

**Time:** time in which the check is done.

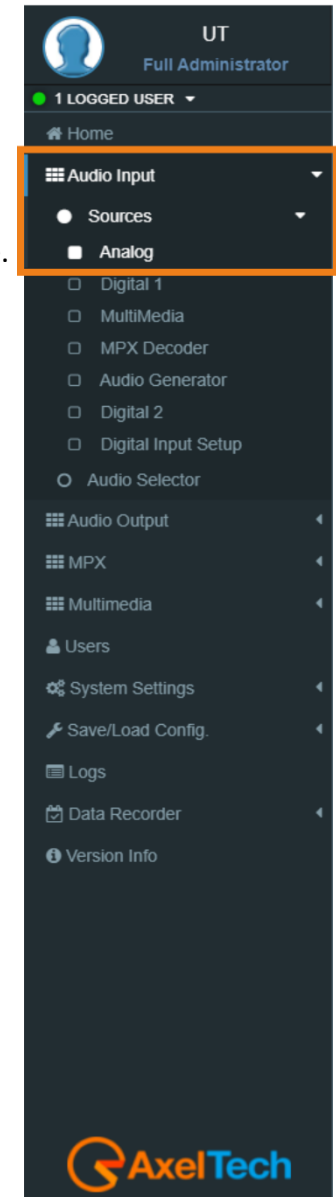
## Events

Audio Inp Analog Events

●

▼

**Masked/Unmasked:** Mask/Unmask the alarm of the Audio Inp Analog Events.



### 3.2.1.2 DIGITAL

#### INPUT

**Sensitivity:** sensitivity of the input level. (For example: if a signal of -6.00 dBu arrives, this parameter has to be set to -6.00 dBu).

#### **Mode:**

**Stereo:** the sound is reproduced in both left and right channels.

**Mono:** the sound is reproduced only in one channel in a monophonic way.

**Mono-Left:** the left channel of the input signal is reproduced in a monophonic way.

**Mono-Right:** the right channel of the input signal is reproduced in a monophonic way.

**Swap Left-Right:** the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in a stereophonic way.

**Inv Left:** the sound is reproduced in a stereophonic way, but the phase of the left channel is inverted.

**Inv Right:** the sound is reproduced in a stereophonic way, but the phase of the right channel is inverted.

#### AGC

**Automatic Gain Control** This setting helps balance and normalize the audio levels of audio transmissions in the system. Digital radio systems typically do not **AGC** control functionality and tend to reproduce a user's voice audio signal more faithfully concerning audio levels. This can result in a low-level audio signal if a user on the system is not speaking close enough to their radio microphone.

**AGC Speed:** gain speed of action.

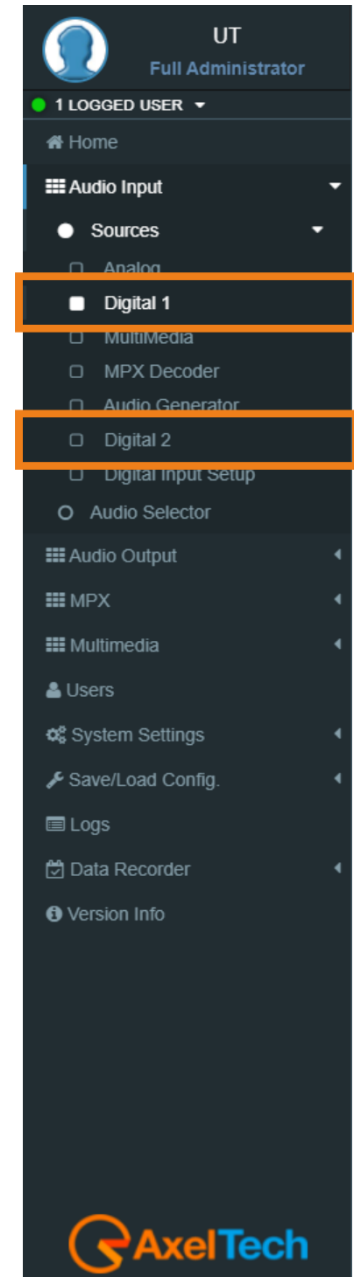
**AGC Range:** this parameter rules the maximum gain to apply to the received signal.

#### VALIDATION

In this section, it is possible to manage the parameter for the signal validation.

The **CHANGEOVER** looking at these parameters can consider them valid or not the source.

**Threshold:** the source is considered invalid if the signal is lower than this value for the time selected in the *Validation* parameter.



**Hysteresis:** the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed in *Hold*.

**Failure Time (Hold):** the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed here.

**Return Time (Validation):** the source is considered invalid if the signal is lower than *Threshold* for the time typed here.

**Audio Failure Search:** This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

For a General Purpose, we suggest choosing **Mode 2**.

For a musical radio, we suggest **Mode 1**.

For talk radio, we suggest you the **Mode 3**.

**Off:** this function is off.

**Mode 1:** *silence blocks window*=80ms, *Percentage*=10%, *Time*=30secs (Music).

**Mode 2:** *silence blocks window*=120ms, *Percentage*=15%, *Time*=30secs (General Purpose).

**Mode 3:** *silence blocks window*=180ms, *Percentage*=20%, *Time*=30secs (Talk).

**Silence blocks window:** seconds of the single audio hole.

**Percentage:** percentage of *Silence blocks window* that the Changeover has to find in a *Time=Time*

**Time:** time in which the check is done.

**Digital AES:**

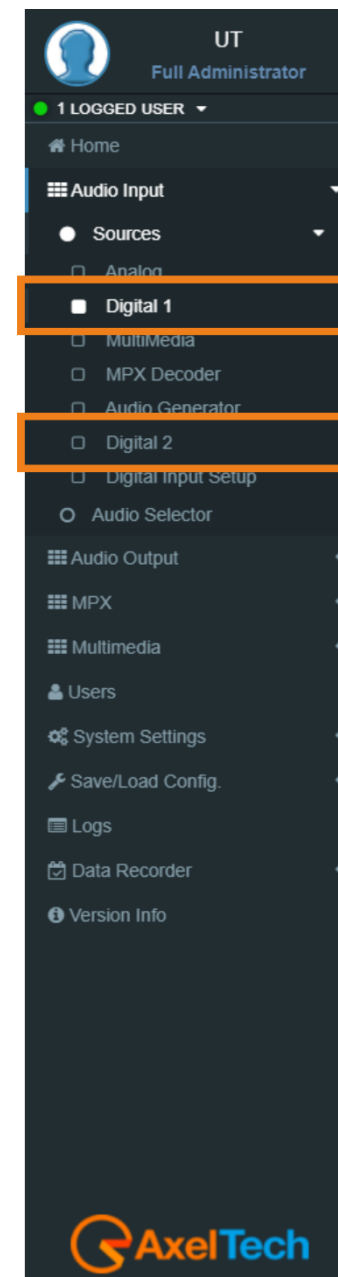
**Validation Off:** if Validation is **Off**, the signal is always considered valid.

**Validation On:** if Validation is **On**, the signal is considered valid only if it is possible to find the AES EBU digital signal clock and frame format.

## Events

**Audio Inp Digital Masked/Unmasked:** Mask/Unmask the alarm of the Audio Inp Digital.

**Audio Aes Digital Carrier Masked/Unmasked:** Mask/Unmask the alarm of the Audio Aes Digital Carrier.



### 3.2.1.3 MULTIMEDIA

This source depends on the multimedia module. The source is included two **IP Decoders** (audio streaming) and an **Audio Player**. The player source is an **SD card** filled in the device with audio files.

#### INPUT

**Sensitivity:** sensitivity of the input level. (For example: if a signal of -6.00 dBu arrives, this parameter has to be set to -6.00 dBu)

**Mode:-**

**Stereo:** the sound is reproduced in both left and right channels.

**Mono:** the sound is reproduced only in one channel in a monophonic way.

**Mono-Left:** the left channel of the input signal is reproduced in a monophonic way.

**Mono-Right:** the right channel of the input signal is reproduced in a monophonic way.

**Swap Left-Right:** the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in a stereophonic way.

**Inv Left:** the sound is reproduced in a stereophonic way, but the phase of the left channel is inverted.

**Inv Right:** the sound is reproduced in a stereophonic way, but the phase of the right channel is inverted.

#### AGC

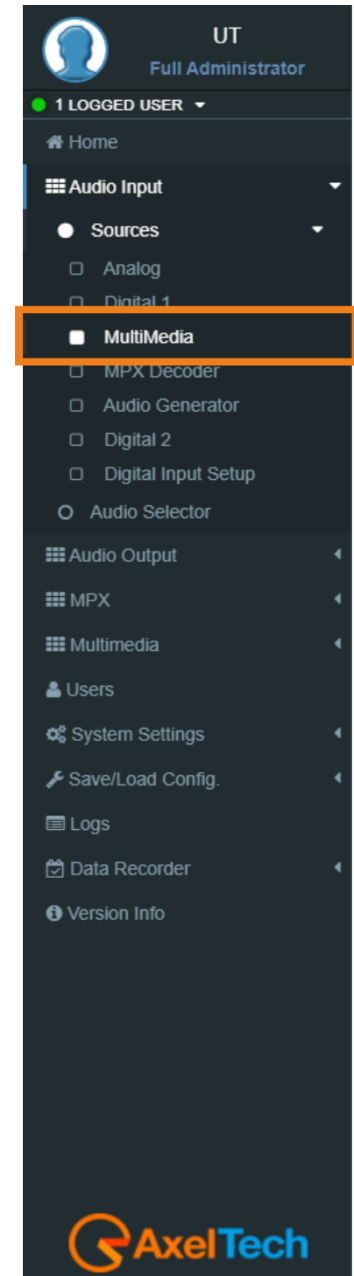
**AGC Speed:** gain speed of action.

**AGC Range:** this parameter rules the maximum gain to apply to the received signal.

#### VALIDATION

In this section, it is possible to manage the parameter for the signal validation.

The **CHANGEOVER** looking at these parameters can consider them valid or not the source.



**Threshold:** the source is considered invalid if the signal is lower than this value for the time selected in the *Validation* parameter.

**Hysteresis:** the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed in *Hold*.

**Failure Time (Hold):** the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed here.

**Return Time (Validation):** the source is considered invalid if the signal is lower than *Threshold* for the time typed here.

**Audio Failure Search:** This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

For a General Purpose, we suggest choosing **Mode 2**.

For a musical radio, we suggest **Mode 1**.

For talk radio, we suggest you the **Mode 3**.

**Off:** this function is off.

**Mode 1:** *silence blocks window*=80ms, *Percentage*=10%, *Time*=30secs (Music).

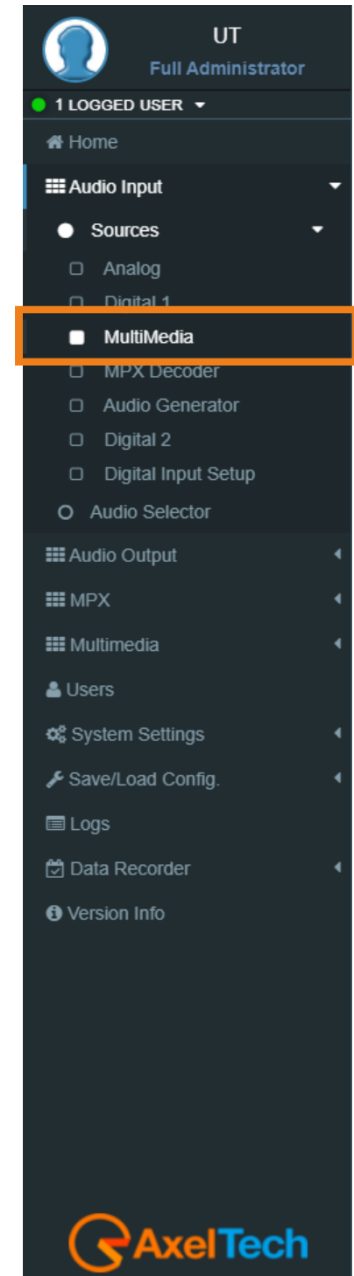
**Mode 2:** *silence blocks window*=120ms, *Percentage*=15%, *Time*=30secs (General Purpose).

**Mode 3:** *silence blocks window*=180ms, *Percentage*=20%, *Time*=30secs (Talk).

**Silence blocks window:** seconds of the single audio hole.

**Percentage:** percentage of *Silence blocks window* that the Changeover has to find in a *Time=Time*

**Time:** time in which the check is done.



## Events

**Audio Inp Media Masked/Unmasked:** Mask/Unmask the alarm of the Audio Inp Media.

Audio Inp Media Events

● masked Audio Inp Media Alarm



### 3.2.1.4 MPX DECODER

This source is an MPX decoder, it extracts the L/R channels from the MPX signal.

#### INPUT

**Source:** Select here the source for the Mpx Decoder. You can choose between:

***MPX Aux1***

***MPX Aux2***

***MPX Aux3***

**Sensitivity:** sensitivity of the input level. (For example: if a signal of -6.00 dBu arrives, this parameter has to be set to -6.00 dBu).

#### **Mode:-**

***Stereo:*** the sound is reproduced in both left and right channels.

***Mono:*** the sound is reproduced only in one channel in a monophonic way.

***Mono-Left:*** the left channel of the input signal is reproduced in a monophonic way.

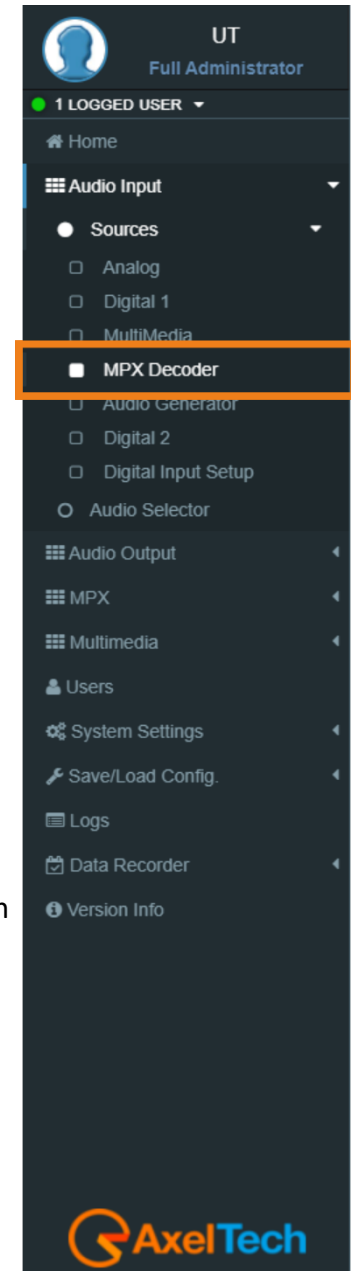
***Mono-Right:*** the right channel of the input signal is reproduced in a monophonic way.

***Swap Left-Right:*** the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in a stereophonic way.

***Inv Left:*** the sound is reproduced in a stereophonic way, but the phase of the left channel is inverted.

***Inv Right:*** the sound is reproduced in a stereophonic way, but the phase of the right channel is inverted

**Deemphasis:** Here is possible to select the deemphasis to apply to the signal. It is possible to choose between ***off***, ***50uSec*** and ***75uSec***.



#### AGC

**AGC Speed:** gain speed of action.

**AGC Range:** this parameter rules the maximum gain to apply to the received signal.

## VALIDATION

In this section, it is possible to manage the parameter for the signal validation.

The **CHANGEOVER** looking at these parameters can consider them valid or not the source.

**Threshold:** the source is considered invalid if the signal is lower than this value for the time selected in *the Validation* parameter.

**Hysteresis:** the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed in *Hold*.

**Failure Time (Hold):** the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed here.

**Return Time (Validation):** the source is considered invalid if the signal is lower than *Threshold* for the time typed here.

**Audio Failure Search:** This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

For a General Purpose, we suggest choosing **Mode 2**.

For a musical radio, we suggest **Mode 1**.

For talk radio, we suggest **Mode 3**.

**Off:** this function is off.

**Mode 1:** *silence blocks window*=80ms, *Percentage*=10%, *Time*=30secs (Music).

**Mode 2:** *silence blocks window*=120ms, *Percentage*=15%, *Time*=30secs (General Purpose).

**Mode 3:** *silence blocks window*=180ms, *Percentage*=20%, *Time*=30secs (Talk).

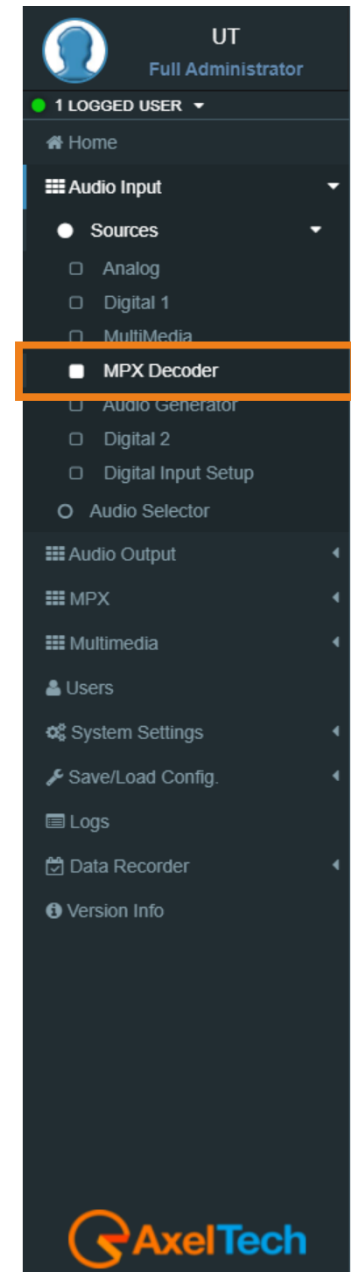
**Silence blocks window:** seconds of the single audio hole.

**Percentage:** percentage of *Silence blocks window* that the Changeover has to find in a *Time=Time*

**Time:** time in which the check is done.

**RDS PI Validation:** In this field, you can fill the desired RDS PI.

If the RDS PI Validation=0000 the source is not under validation control. the signal is always considered valid.



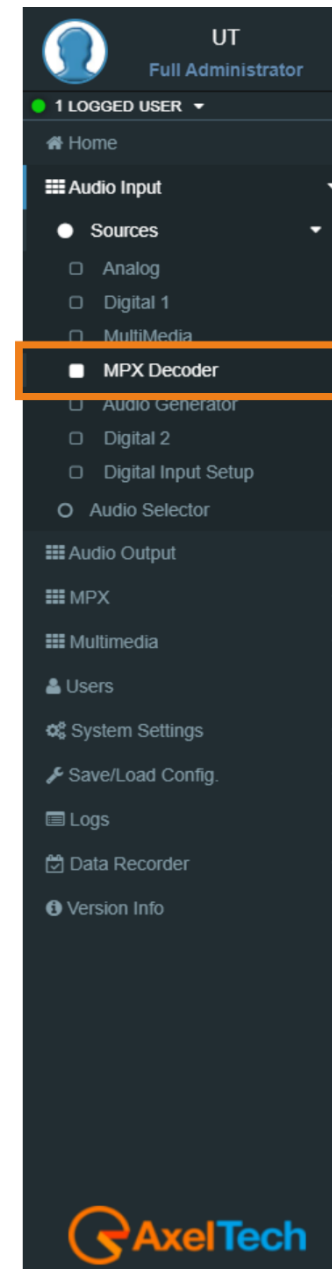
If the RDS PI Validation=*number* then:

if *RDS PI = number* the source is considered valid.

if *RDS PI ≠ number* all the MPX source is invalidated.

**Events**

**Audio Inp MPX Decoder Masked/Unmasked:** Mask/Unmask the alarm of the Audio Inp MPX Decoder.



### 3.2.1.5 AUDIO GENERATOR

This device comes with a built-in audio tone generator. The tone range is 30 Hz - 15 kHz. This option is too useful for tuning instruments, science experiments, and testing audio equipment. The Audio Generator module sets the parameters for the internal tone generator.

#### CONFIGURATION

**Mode:** This parameter sets the mode with the audio generator generates a tone. The possible modes are

**Left=Right:** the Left and the Right channels are in phase

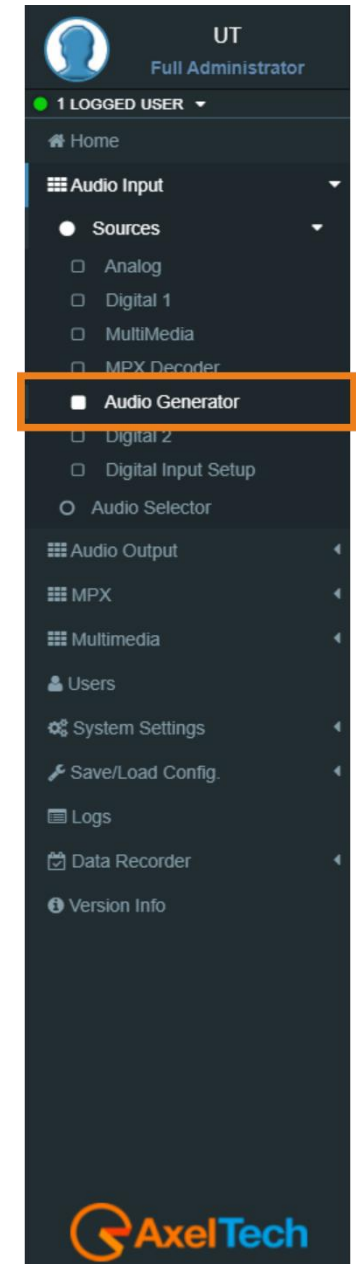
**Left=-Right:** the Left and the Right channels are in reverse phase

**Only Left:** only the Left channel is available

**Only Right:** only the Right channel is available

**Freq:** Select here the frequency of the tone that you want to generate.

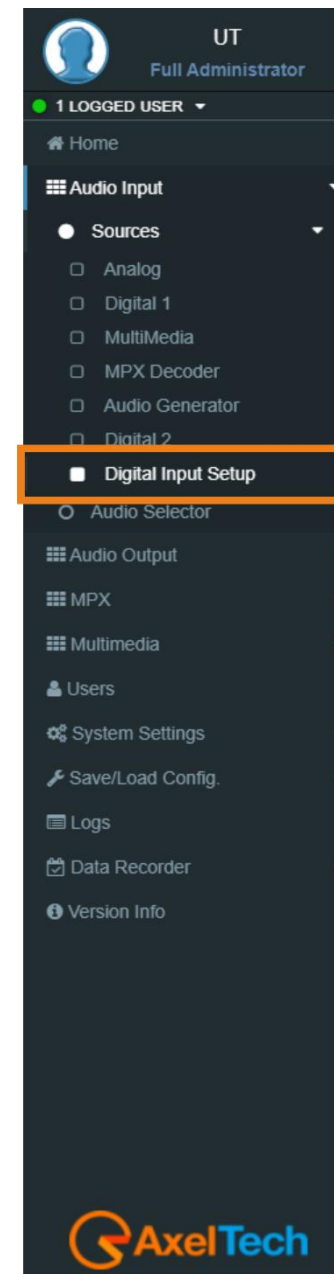
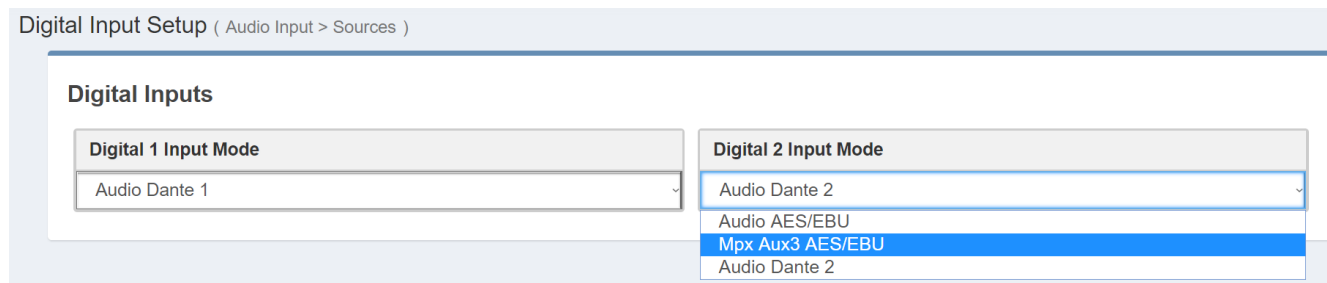
**Level:** select here the level (dBr) of the tone that you want to generate.



### 3.2.1.6 DIGITAL INPUT SETUP

Here can switch the **DIGITAL-1** between **AES/EBU-1** and **DANTE-1\***.

And switch the **DIGITAL-2** between **AES/EBU-2**, **MPX AUX3**, and **DANTE-2\***.




---

\* Optional.

The audio changeover has the task to forward the selected source to the **INTERNAL MPX ENCODER**.

### CONFIGURATION

Configuration

Mode Source4	GPI Forced Source Disabled
-----------------	-------------------------------

#### Mode:

- a) Choose between **Source1, Source2, Source3, and Source4** to force the changeover selection. the changeover keeps the source even if It is invalidated.
- b) Choose **Auto** if you want that the changeover selects the source automatically. If the source is invalidated, the changeover selects the next source available.
- c) Choose **Generator** if you want to forward at the **INTERNAL MPX ENCODER** the internal **AUDIO GENERATOR** (tone generator).

#### GPI Forced Source:

The GPI command can force the Audio Selector to switch to the associated source.

**Source 1 by GPI 1:** To force source 1 by GPI command to be the main input selected.

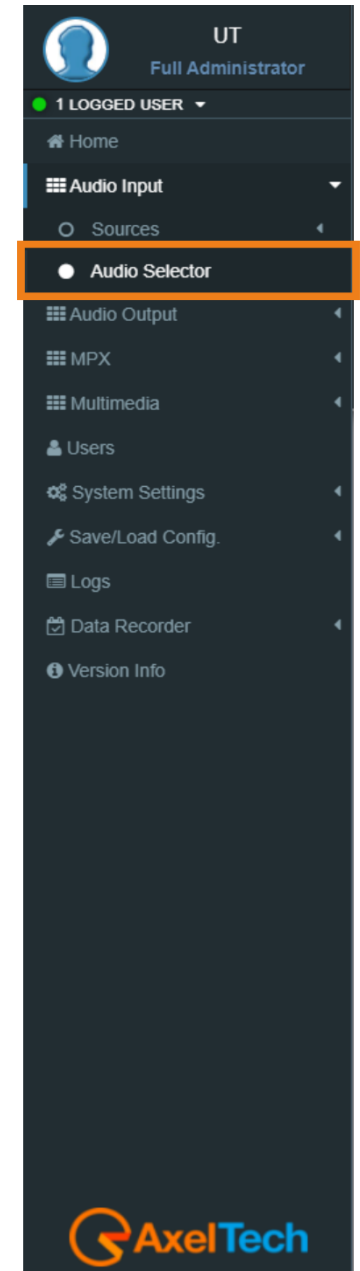
**Source 2 by GPI 2:** To force source 2 by GPI command to be the main input selected.

**Source 3 by GPI 3:** To force source 3 by GPI command to be the main input selected.

**Source 4 by GPI 4:** To force source 4 by GPI command to be the main input selected.

**Mapped Sources by GPI 5-6:** To force one of the four sources to be the main input by the BINARY GPI command selected.

<b>GPI 5 Logic</b>	Negative	Positive	Negative
<b>GPI 6 Logic</b>	Positive	Negative	Negative
<b>Mapped Sources by GPI 5-6</b>	<b>Source 2</b>	<b>Source 3</b>	<b>Source 4</b>



## SOURCES

**Sources**

Source1 - High Priority	Source2	Source3	Source4 - Low Priority
Analog	Digital 1	MPX Decoder	MultiMedia

**Source1:** assign here the source you want as the first one (High Priority).

**Source2:** assign here the source you want as the second one.

**Source3:** assign here the source you want as the third one.

**Source4:** assign here the source you want as the fourth one (Low Priority).

## Delayed Signal

**Delayed Signal**

Source Off	Delay <span style="float: right; border: 1px solid #ccc; padding: 2px;">+0 ms</span>
---------------	--

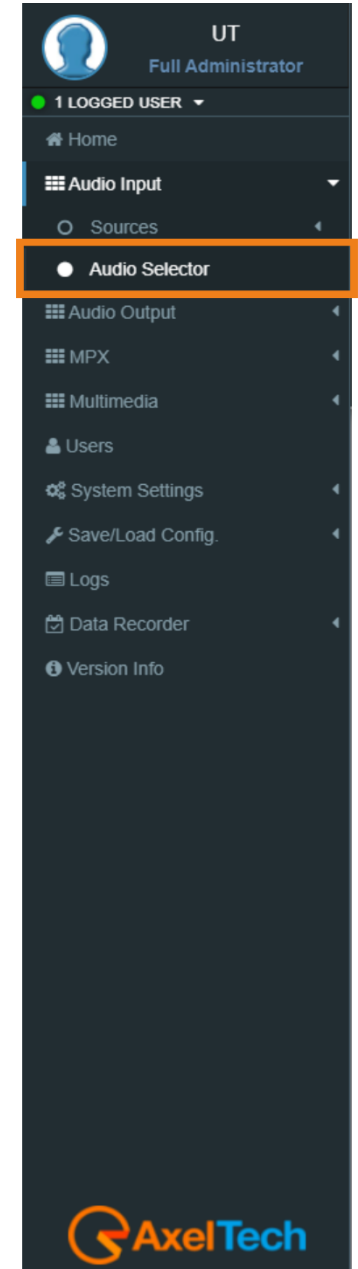
Here it can delay one of the input sources to be aligned with other sources or delay the main output.

## Events

**Audio Changeover Events**

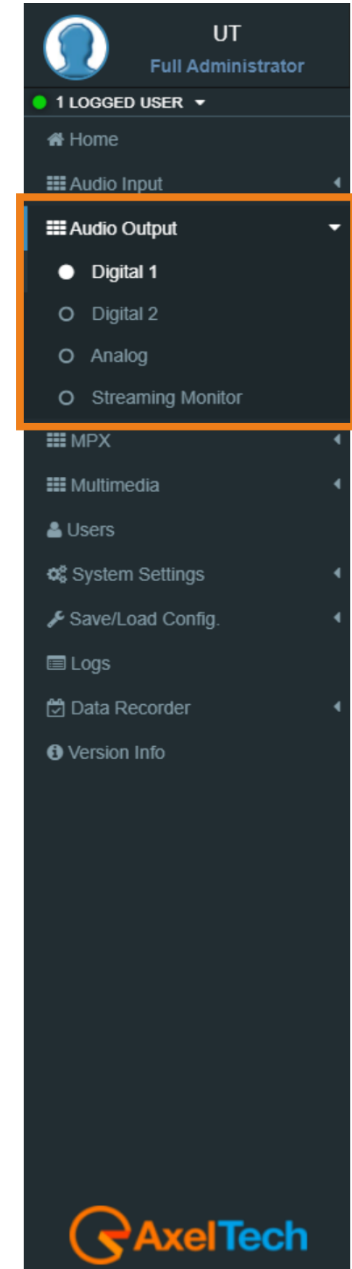
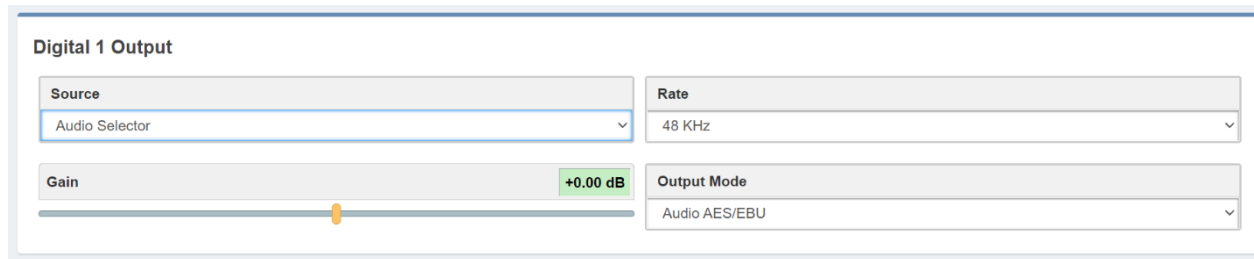
<input checked="" type="checkbox"/> unmasked	Audio Changeover Failure Alarm
--	--------------------------------

**Audio Changeover Masked/Unmasked:** Mask/Unmask the alarm of the Audio Changeover.



### 3.3 AUDIO OUTPUT

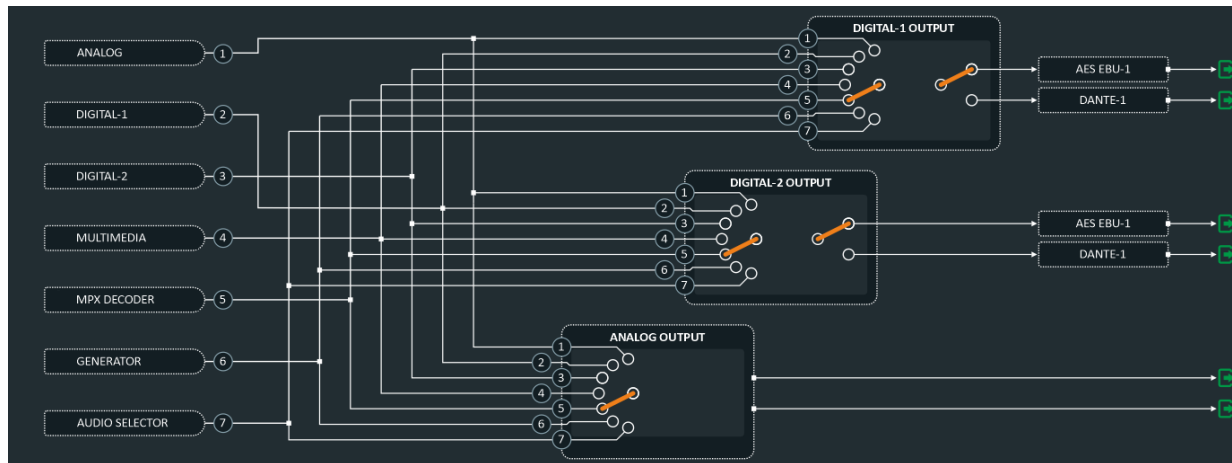
A manual changeover that allows you to choose the source to be sent to **DIGITAL OUTPUT** from sources that are (**Analog Input, Digital 1, Digital 2, Multimedia, MPX Decoder Generator, and Audio selector**).



#### Output Mode

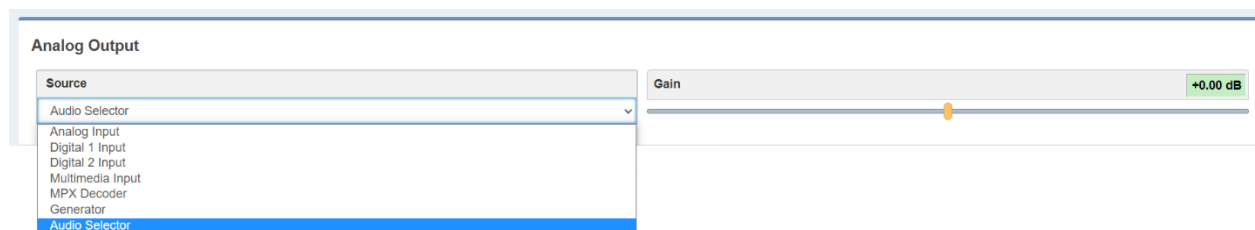
Here can switch the **DIGITAL-1** between **AES/EBU-1** and **DANTE-1\***.

And switch the **DIGITAL-2** between **AES/EBU-2, MPX AUX3, and DANTE-2\***.



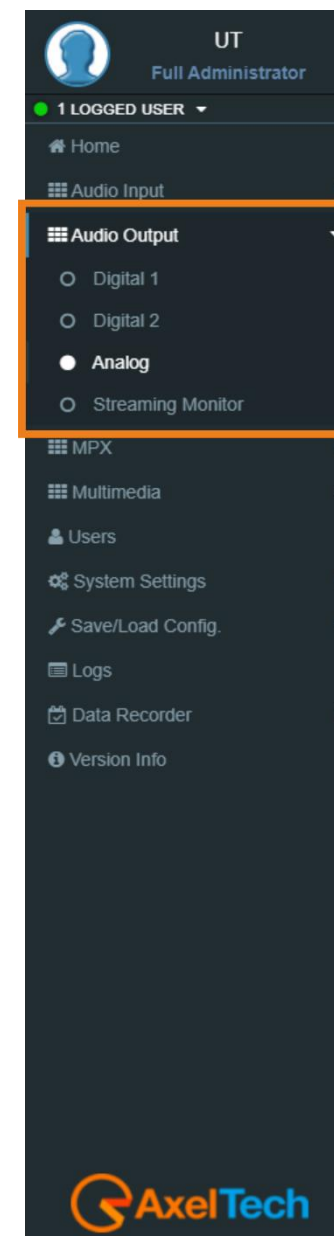
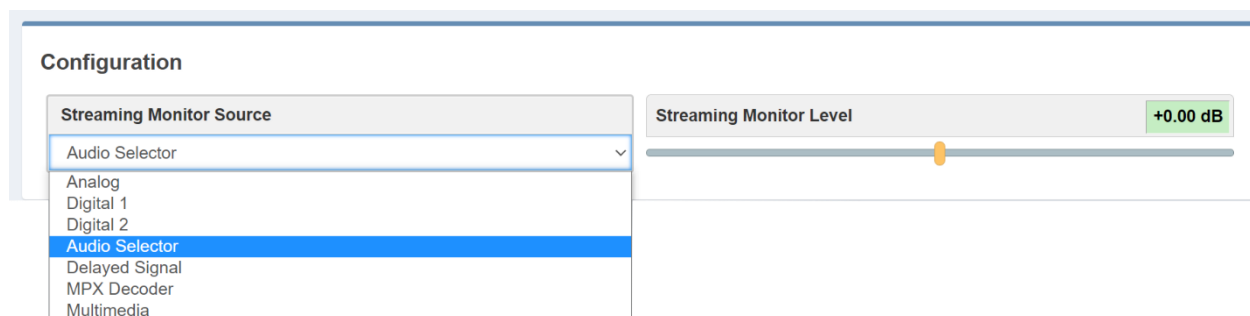


A manual changeover that allows you to choose the source to be sent to **ANALOG OUTPUT** from sources that are (**Analog Input, Digital 1, Digital 2, Multimedia, MPX Decoder Generator, and Audio selector**).



A manual changeover that allows you to choose the source to listen to, or send it by the internet (**VOIP**) to somewhere. It is possible to select between one of the following sources:

(**Analog Input, Digital 1, Digital 2, Multimedia, MPX Decoder Generator, and Audio selector**).



## 3.1 MPX

### Inputs ( MPX )



## 3.2 MULTIMEDIA

### 3.2.1.1 STREAM 1 DECODER, STREAM 2 DECODER

#### STATUS

(The status parameters are only readable)

Status	Protocol	Encoder	BitRate	Mode	Freq
Connected	Icecast	MPEG-1 Layer 3 (MP3)	128kBits	Stereo	44.1 KHz

**Status:** Decoder Status

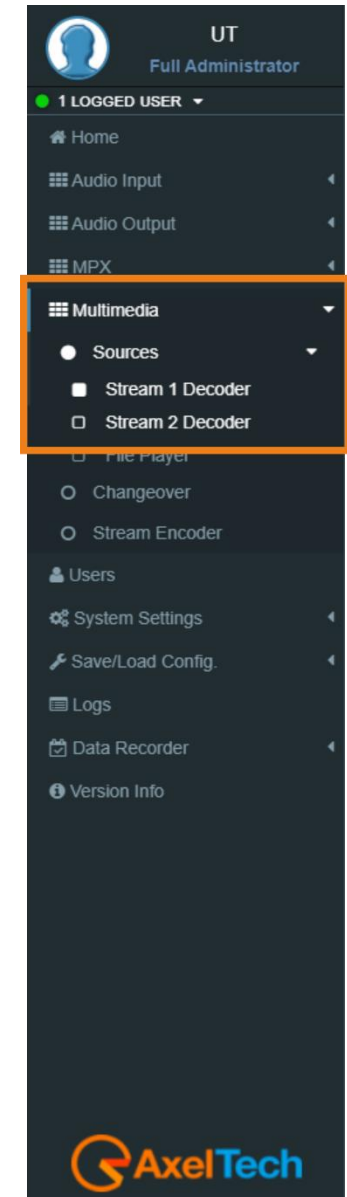
**Protocol:** The transport protocol

**Encoder:** Format of the decoded signal

**BitRate:** BitRate – the bits conveyed or processed per unit of time

**Mode:** Stereo or Mono

**Freq:** Sampling rate



**CONFIGURATION**

Configuration		
Mode IcecastReceiver	Buffer (ms) 3000	
Multicast RX Enable Enabled	Multicast Host Group 239.10.1.2	Output Gain (dB) 0.0

**Mode:** Select here the Protocol of the Transport and the format of the decoded signal.

**Buffer (ms):** Set here the desired buffer delay (ms).

**Multicast RX Enable:** Enable/Disable the Multicast receiving.

**Multicast Host Group:** Set here the IP of the Multicast Group.

**Output Gain:** Set here the Output Gain.

**TRANSPORT MODE**

RTP

Port
10000

**Port:** Here you can set the Port of your RTP encoder.

UDP

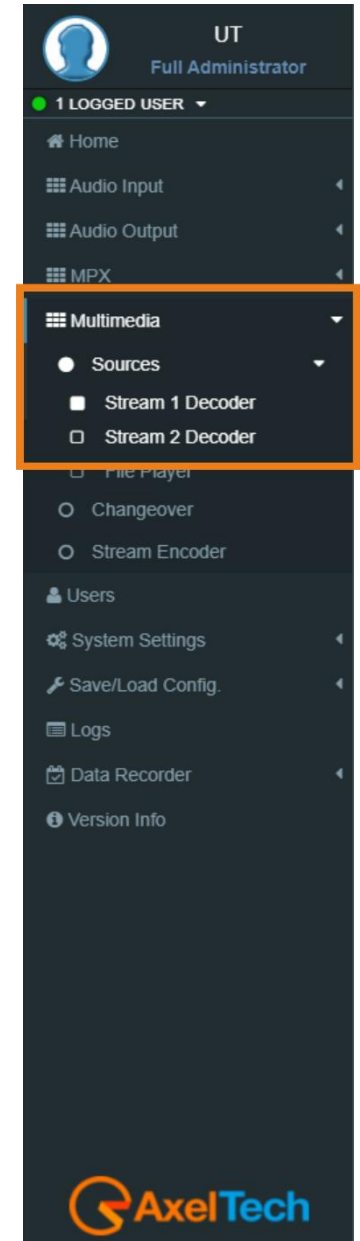
Port
10000

**Port:** Here you can set the Port of your UDP encoder.

ICECAST

Location
http://icestreaming.rai.it/2.mp3

**Location:** Here you can type the URL of the stream to receive your audio from your Icecast.



## CODEC SETTINGS

### RAW 16 BIT

<b>Mode</b>	Stereo
<b>Sample Rate</b>	32 kHz

**Mode:** Select here the Mode of the RAW 16 BIT audio decoded.

**Sample Rate:** Select here the Sample Rate of the RAW 16 BIT audio decoded.

### MP3

<b>Mode</b>	Stereo
<b>Sample Rate</b>	32 kHz

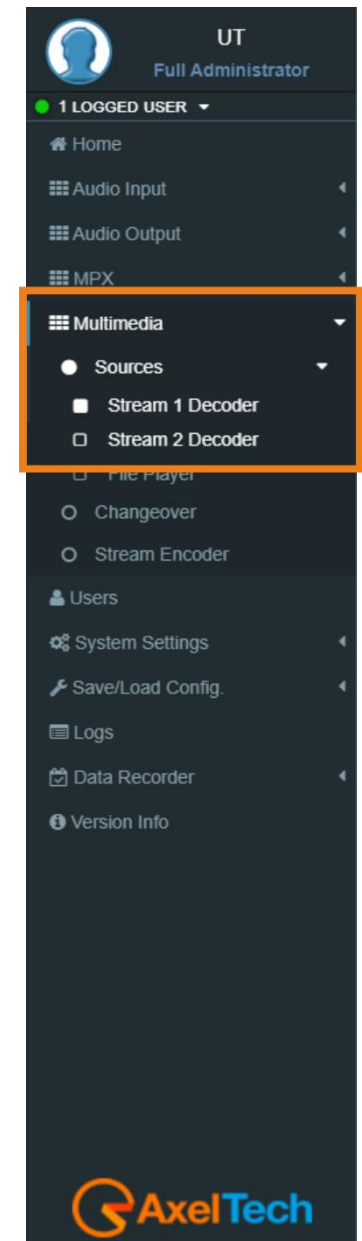
**Mode:** Select here the Mode of the MP3 audio decoded.

**Sample Rate:** Select here the Sample Rate of the MP3 audio decoded.

### OPUS

<b>Mode</b>	Stereo
<b>Sample Rate</b>	48 kHz

**Mode:** Select here the Mode of the OPUS audio decoded.



**Sample Rate:** Select here the Sample Rate of the OPUS audio decoded.

AAC

<b>Mode</b>	Stereo
<b>Sample Rate</b>	44.1 kHz

**Mode:** Select here the Mode of the AAC audio decoded.

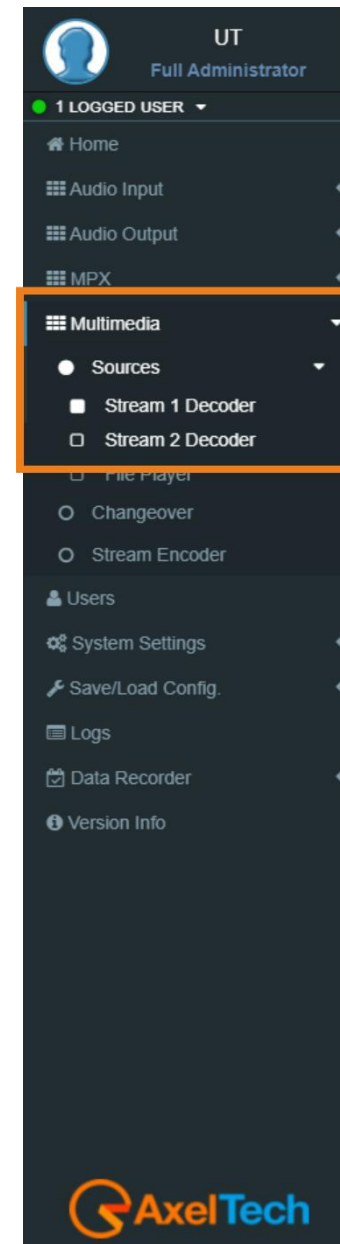
**Sample Rate:** Select here the Sample Rate of the AAC audio decoded.

MPEG-2

<b>Mode</b>	Stereo
<b>Sample Rate</b>	48 kHz

**Mode:** Select here the Mode of the MPEG-2 audio decoded.

**Sample Rate:** Select here the Sample Rate of the MPEG-2 audio decoded.



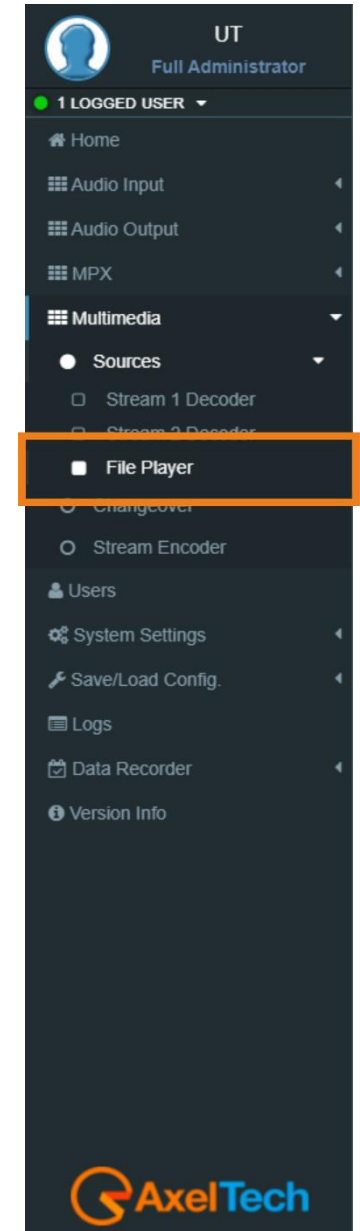
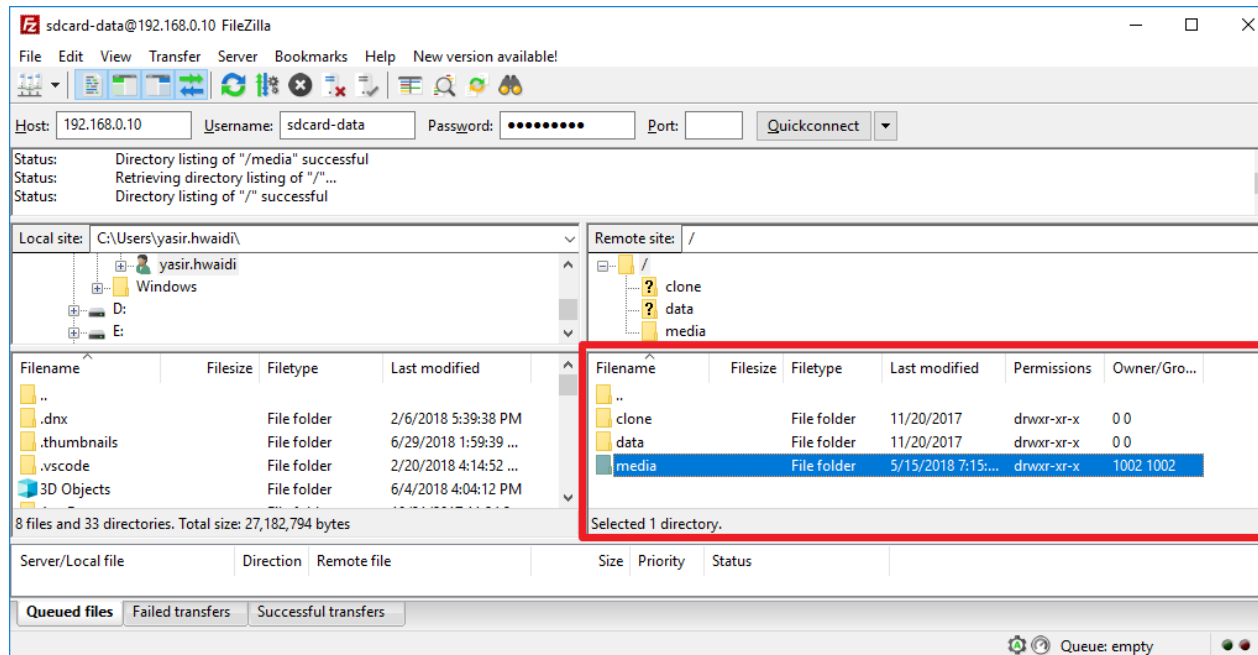
### 3.2.1.2 FILE PLAYER

To load new audio files inside the device you have to connect with it through an **FTP Client** (in this example we use Filezilla). The device must be reachable.

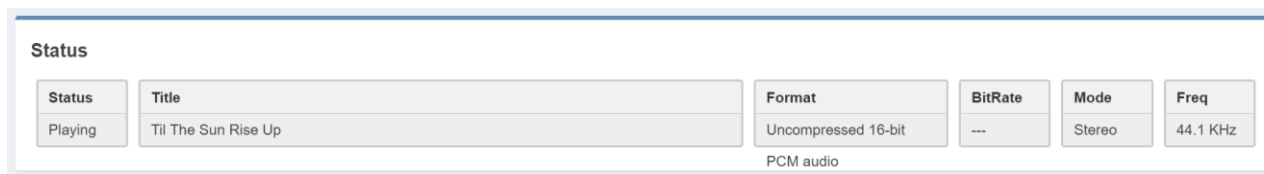
In the following line you can read the **FTP Credentials** useful for the connections:

Host: **device IP**      User: **sdcard-data**      Password: **ax-sdcard**

Click on the **media** folder and paste the new firmware file in the red area as shown in the picture.



**STATUS** (The status parameter are only readable)



## CONFIGURATION

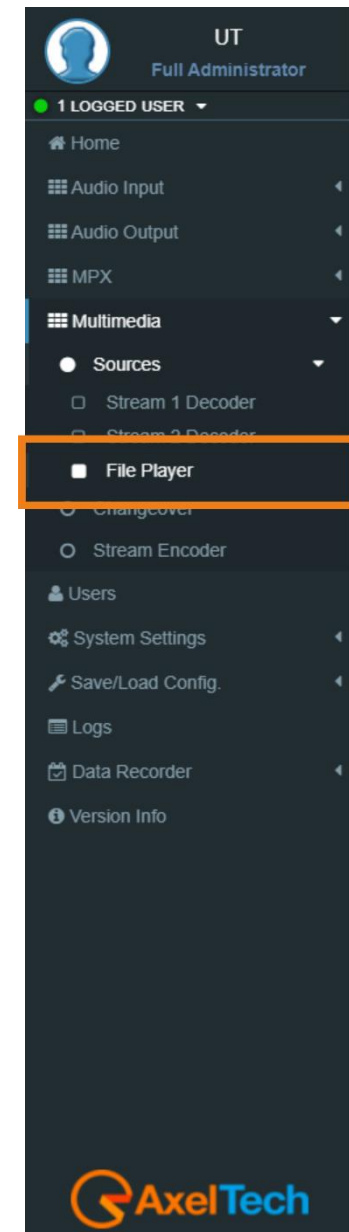
Configuration	
<b>Mode</b> Enabled	<b>Buffer (ms)</b> 3000
<b>Output Gain (dB)</b> -6.0	<b>Play Order</b> Alphabetic

**Mode:** Enable/Disable the File Player from SD.

**Buffer (ms):** Set here the desired buffer (ms).

**Output Gain (dB):** Set here the desired output gain for the File Player.

**Play Order:** Set here the Play Order, decide between Shuffle, Alphabetic, and by Date.



### 3.2.2.1 Multimedia Changeover

Multimedia Changeover switch between two Decoders and Multimedia Player in AUTOMATIC or MANUAL mode.

#### Configuration

**Configuration**

Multimedia Changeover Mode

FilePlayer

**Multimedia Changeover Mode:** can choose between three sources including the **MULTIMEDIA MODULE** (Decoder1, Decoder2, FilePlayer), or can select Auto to switch automatically at the source available.

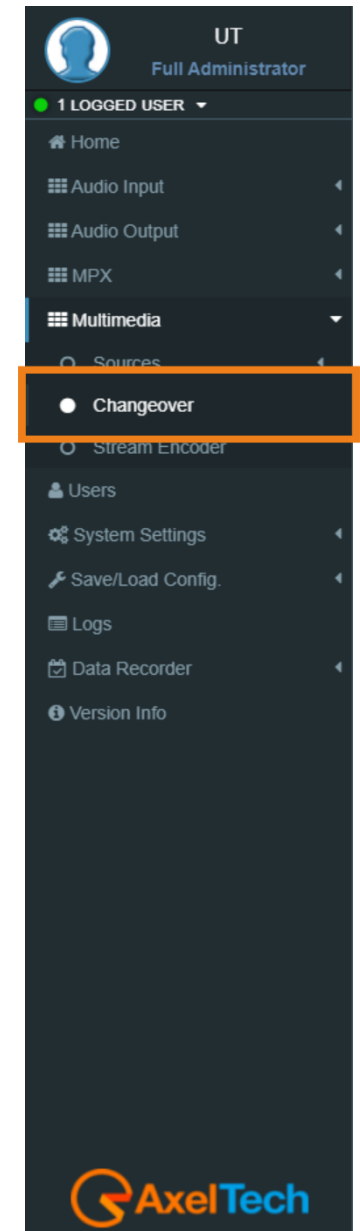
#### Multimedia Changeover Events.

**Multimedia Changeover Events**

unmasked

Multimedia Changeover Failure Alarm

**Multimedia Changeover Events:** Masked /Unmasked the Alarm or notifications related to the connection between the device and one or more SMTP Servers.





**STATUS** (The status parameters are only readable)

Status	Protocol	Encoder	BitRate	Mode	Freq
Connected	Icecast Server	MP3	192kBits	Stereo	48 KHz

**Status:** Encoder Status

**Protocol:** The transport protocol

**Encoder:** Format of the encoded signal

**BitRate:** BitRate – the bits conveyed or processed per unit of time

**Mode:** Stereo or Mono

**Freq:** Sampling rate

**CONFIGURATION**

Configuration	
<b>Mode</b> IcecastServer-WebAudioHighQuality	<b>Input Gain (dB)</b> 1.0
<b>Multicast Tx Enable</b> Enabled	<b>Multicast Host</b> 239.10.1.3
<b>Multicast TTL</b> 1	

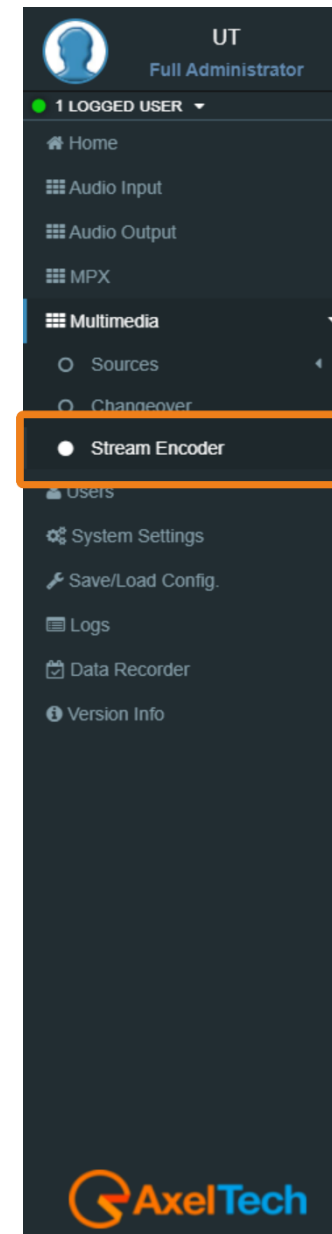
**Mode:** Select here the Protocol of the Transport and the format of the encoded signal

**Input Gain:** Type here the gain that you want to assign to the signal

**Multicast Tx Enable:** Enable or Disable the Multicast transmission.

**Multicast Host:** Type here the address of the Multicast Host.

**Multicast TTL:** Time-to-live (TTL)



## TRANSPORT MODE

### ICECAST SOURCE

If you have an external Icecast server here you can set all the parameters to stream your audio into a specific mount point of your Icecast.

Server IP Address	<input type="text"/>
Source Port	<input type="text" value="1"/>
Username	<input type="text"/>
Password	<input type="text"/>
Mount Point	<input type="text"/>
Stream Name	<input type="text"/>

**Server IP Address:** the IP Address of your Icecast server

**Source Port:** set the Icecast port in which your audio will be sent

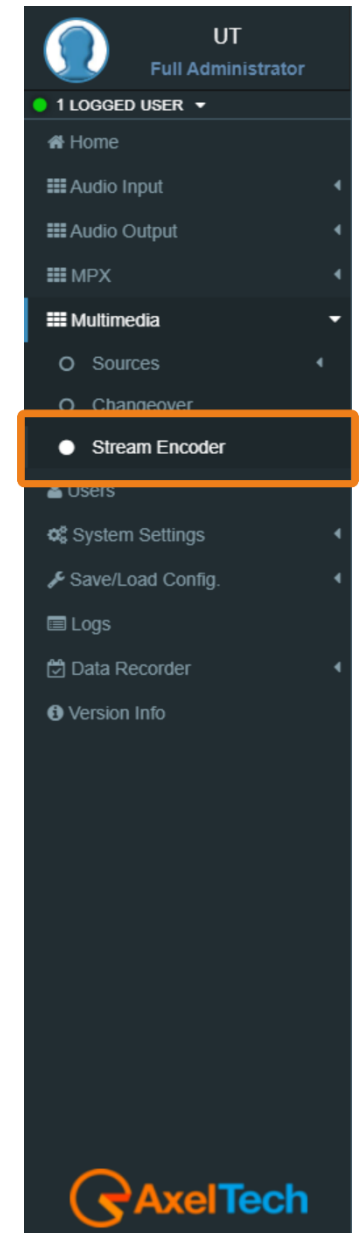
**Username:** Username for the authentication

**Password:** Password for the authentication

**Mount Point:** Type here the Mount point in which your audio will be sent.

**Tag Enable:** Set here if you want to enable or disable your Icecast Source

**Tag Title:** Give a title to your Icecast



### ICECAST SERVER

If you don't have an external Icecast Server you can distribute the audio directly to your listeners as if your device would be an Icecast Server. This Mode, differently from the Icecast Source, could have only a few users.

<b>Mount Point</b>
stream
<b>Tag Enable</b>
Disabled
<b>Tag Title</b>
<b>Tag Organization</b>

**Mount Point:** Type here the Mount point in which your audio will be sent

**Tag Enable:** Set here if you want to enable or disable your Icecast Source

**Tag Title:** Give a title to your device used as Icecast.

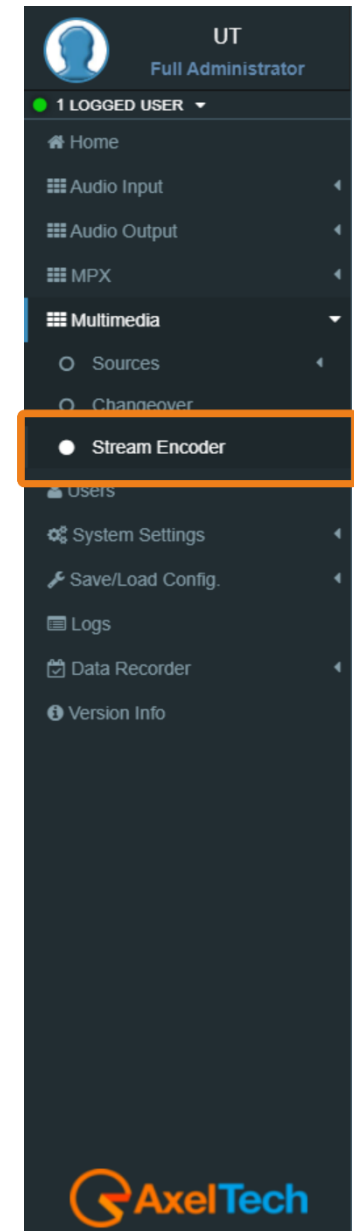
**Tag Organization:**

**NOTE:** The default PORT of the internal IceCast server is **8000**. so, to listen to the audio of the internal IceCast server use the next string ( `http://your IP Address:8000/your Mount Point` )

EX.:

`http://192.168.120.120:8000/stream`

if need to get that audio streaming out of your Local Area Network, you have to set a public IP Address for this device from:- [MENÙ > Home > System Settings > Network > eth0](#)



### RTP

Host	172.20.0.52
Port	5656

**Host:** Type here the IP address of your RTP decoder.

**Port:** Type here the Port of your RTP decoder.

### UDP

Host	172.20.0.52
Port	5656

**Host:** Type here the IP address of your UDP decoder.

**Port:** Type here the Port of your UDP decoder.

## CODEC SETTINGS

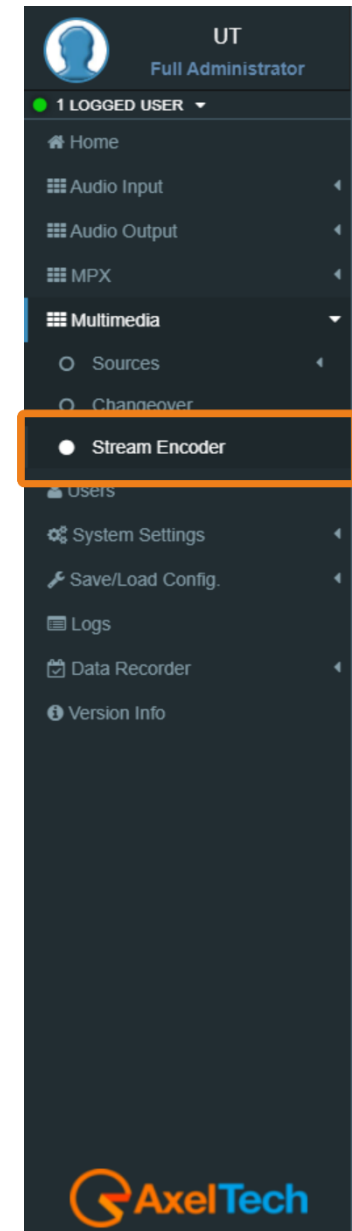
### VORBIS

Rate	192kBits
Mode	Stereo
Sample Rate	48 kHz

**Rate:** Select the Rate of the Vorbis audio encoding.

**Mode:** Select the Mode of the Vorbis audio encoding.

**Sample Rate:** Select the Sample Rate of the Vorbis audio encoding.



### MP3

<b>Rate</b>	128kBits
<b>Mode</b>	Stereo
<b>Sample Rate</b>	32 kHz

**Rate:** Select the Rate of the MP3 audio encoding.

**Mode:** Select the Mode of the MP3 audio encoding.

**Sample Rate:** Select the Sample Rate of the MP3 audio encoding.

### OPUS

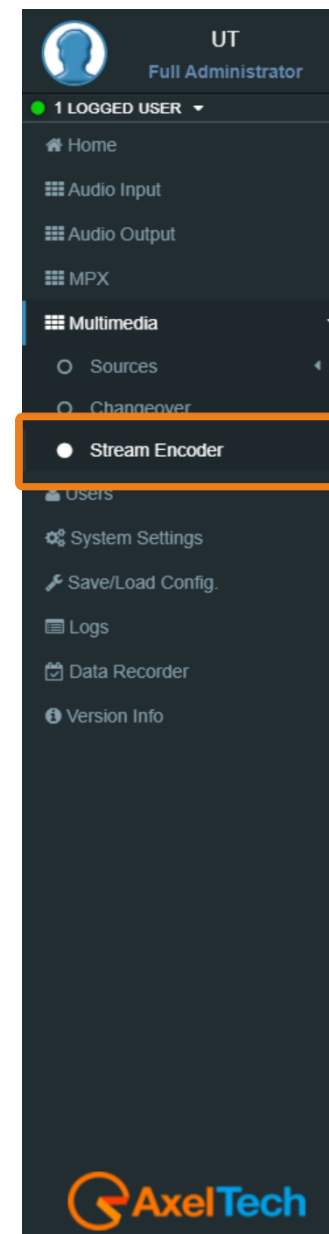
<b>Rate</b>	256kBits
<b>Mode</b>	Stereo
<b>Sample Rate</b>	48 kHz
<b>Bandwidth</b>	Full Band

**Rate:** Select the Rate of the Opus audio encoding.

**Mode:** Select the Mode of the Opus audio encoding.

**Sample Rate:** Select the Sample Rate of the Opus audio encoding.

**Bandwidth:** Select the Bandwidth of the Opus audio encoding.



### RAW 16 BIT

Mode	Stereo
Sample Rate	32 kHz

**Mode:** Select the Mode of the Raw 16 Bit audio encoding.

**Sample Rate:** Select the Sample Rate of the Raw 16-bit audio encoding.

### AAC

Rate	128kBits
Mode	Stereo
Sample Rate	48 kHz

**Rate:** Select the Rate of the AAC audio encoding.

**Mode:** Select the Mode of the AAC audio encoding.

**Sample Rate:** Select the Sample Rate of the AAC audio encoding.

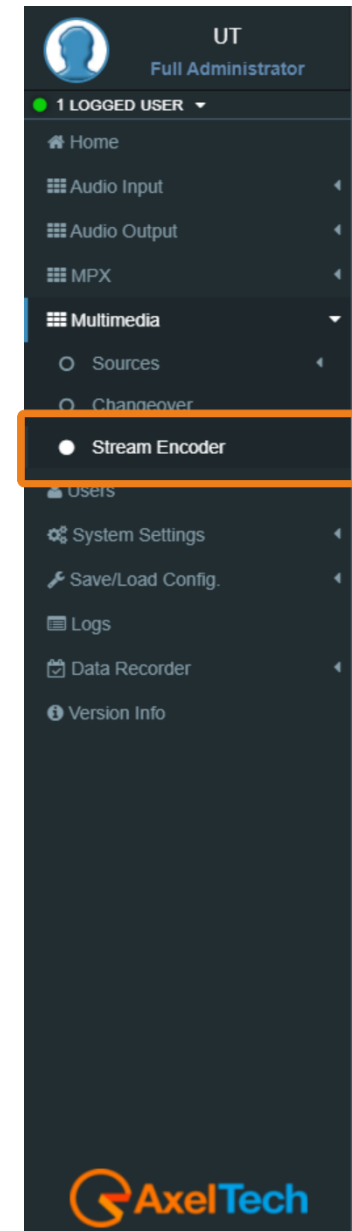
### MPEG-2

Rate	128kBits
Mode	Stereo
Sample Rate	32 kHz

**Rate:** Select the Rate of the MPEG-2 audio encoding

**Mode:** Select the Mode of the MPEG-2 audio encoding.

**Sample Rate:** Select the Sample Rate of the MPEG-2 audio encoding.



### 3.3 USERS

In the Administration section, you can read, and manage all the users and you can set their access permissions to the device. This section can be managed only by the Admin users.

#### Users List

Axel Technology - Administrator

Selected user

Tester 1 - Super User

Non selected user



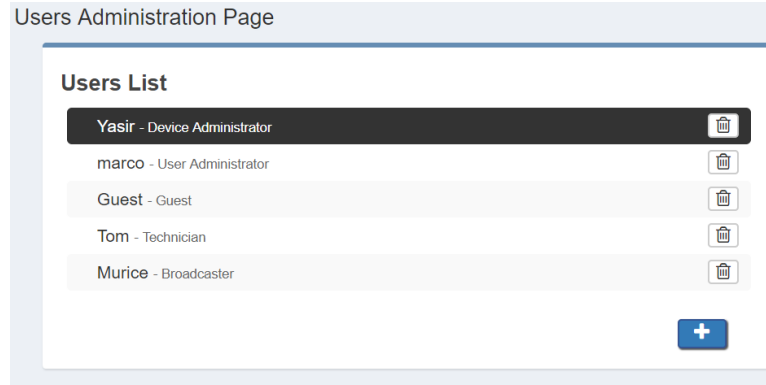
remove button



confirm the selected user removal



add a new User



#### User Details (user name)

**Full Name:** User Name

**E-Mail:** user email

**User Class:** user class, here you can decide user permissions.



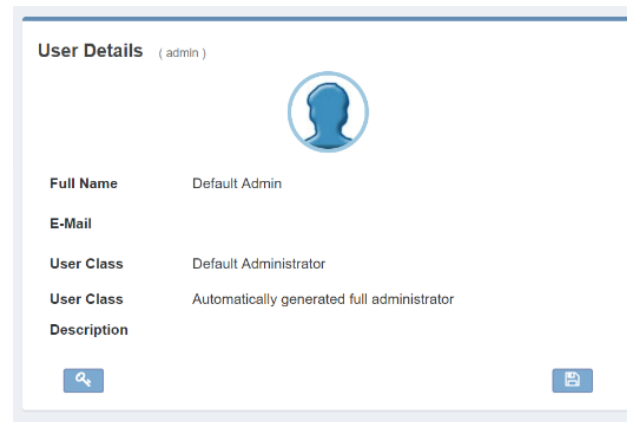
Discard Changes from the selected user



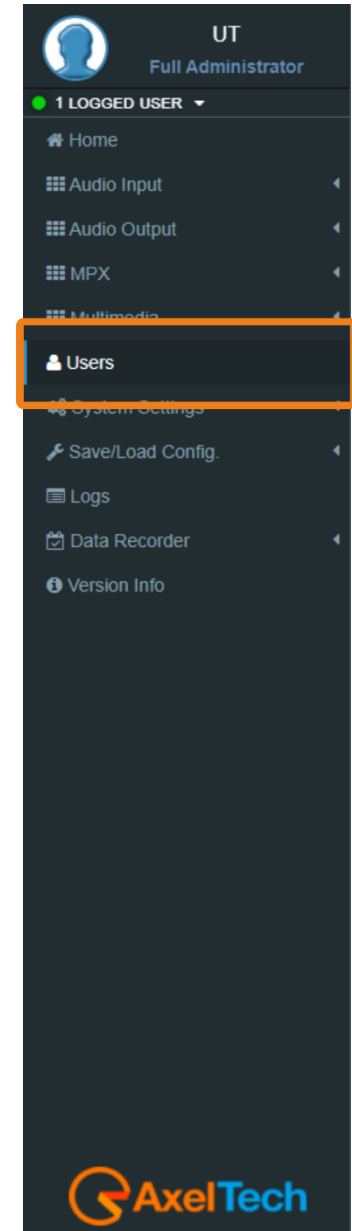
Change the password for the selected user



Save Changes for the selected user



**Note:** once you add a new account to the device, the **Default User** (user: **admin** – pass: **admin**) is not available anymore, until deleting all accounts the **Default User** will be active again.



### Full Administrator

The Full Administrator manages all user-profiles and accesses all pages (except the calibration).

**Default Administrator (Default User):** The default administrator is the default user of the device, it is under the Full Administrator category, but it has fixed access credentials (user: **admin** – pass: **admin**). This user is visible only when the system has no other Full Administrators.

### User Administrator

User Administrator. It manages the profiles of all users.

### Device Administrator

Non-administrator user that accesses all pages (it does not access administration, calibration, and some of the product nameplate data).

### Technician

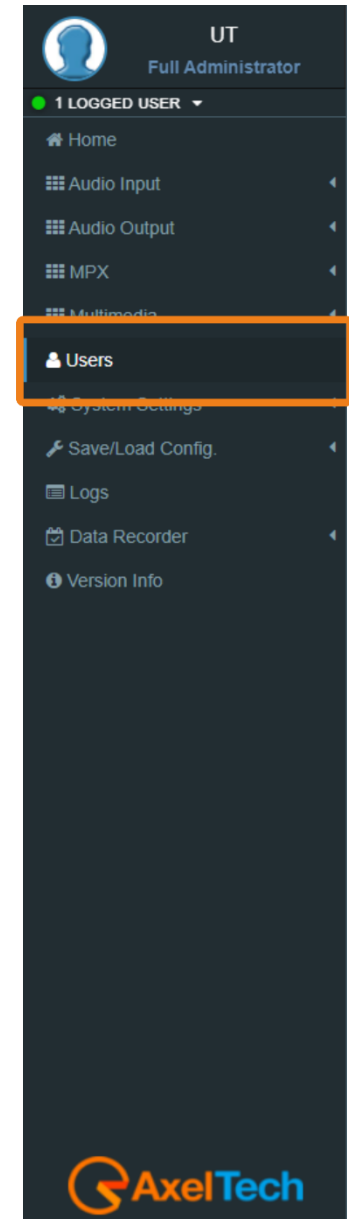
The technician is the one who controls all the hardware parameters of the machine and the control of information pages.

### Broadcaster

It has full control only on information management pages and on the audio signal.

### Guest/Reader

Guest accesses anywhere without being able to edit any parameter.





Below, is a summary table with the list of product pages and access rights for each type of use:

**Legend**

RW: full access (read/write)

R: read-only user

H: hidid page

Page	Full Admin	User Admin	Device Admin	Technician	Broadcaster	Guest
Home	R	R	R	R	R	R
General Setup	RW	R	RW	RW	R	R
Network	RW	R	RW	RW	R	R
NTP	RW	R	RW	RW	R	R
SNMP	RW	R	RW	RW	R	R
SMTP	RW	R	RW	RW	R	R
GPIO	RW	R	RW	RW	R	R
GPS	RW	R	RW	RW	R	R
Updates	RW	R	RW	R	R	R
Device Management	RW	R	RW	R	R	R
SD Card Utilities	RW	R	RW	R	R	R
Administration	RW	RW	H	H	H	H
Logs	RW	RW	RW	RW	RW	R
Logs (Debug)	H	H	H	H	H	H
Configuration	RW	R	RW	RW	RW	R
Audio Input Sources: Analogic	RW	R	RW	RW	RW	R
Audio Input Sources: Digital	RW	R	RW	RW	RW	R
Audio Input Sources: Multimedia	RW	R	RW	RW	RW	R
Audio Input Sources: MPX Decoder	RW	R	RW	RW	RW	R
Audio Input Sources: Audio Generator	RW	R	RW	RW	RW	R
Audio Input Sources: Output Monitor	RW	R	RW	RW	RW	R
Audio Input: Changeover	RW	R	RW	RW	RW	R
Audio Input:Audio Analysis	RW	R	RW	RW	RW	R
Multimedia Streamer: Encoder	RW	R	RW	RW	RW	R
Multimedia Streamer: Decoder	RW	R	RW	RW	RW	R
Multimedia Output	RW	R	RW	RW	RW	R

To add a New User read the following steps:

1. Click on Add a New User button
2. Type in the following fields the new user details:

**User Name:** New User name

**Full Name:** New User full name

**E-Mail:** New User email address

**User Class:** Select here the new user class

**Password:** New User Password

**Password (Confirm):** Password confirmation

The 'New User Details' form contains the following fields:

- User Name:
- Full Name:
- E-Mail:
- User Class:
- Password:
- Password (Confirm):

At the bottom, there are two buttons: a circular arrow icon (discard) and a document icon (save).

3. click on to discard the last changes or click on to save for them.

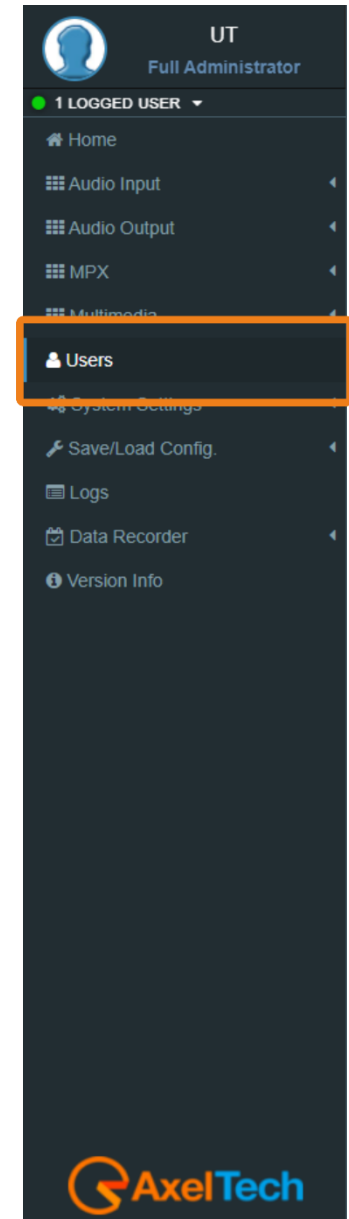
To remove an Existing User read the following steps:




The 'Users Administration Page' displays a 'Users List' with the following entries:

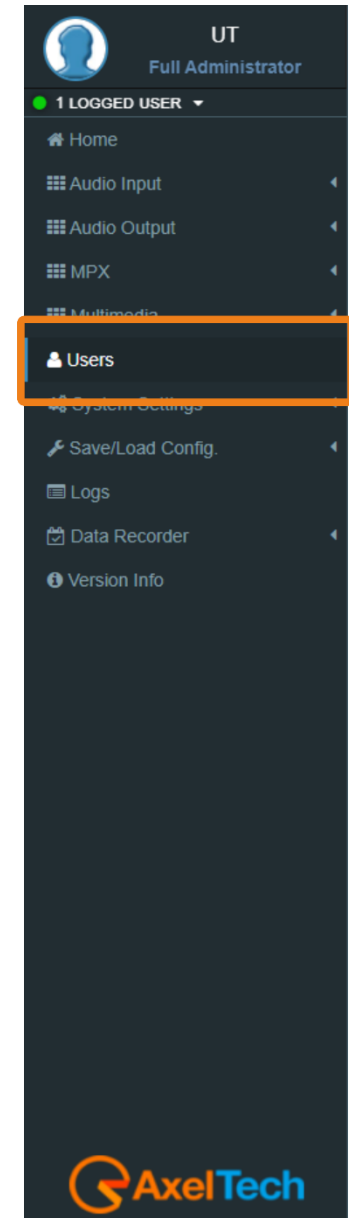
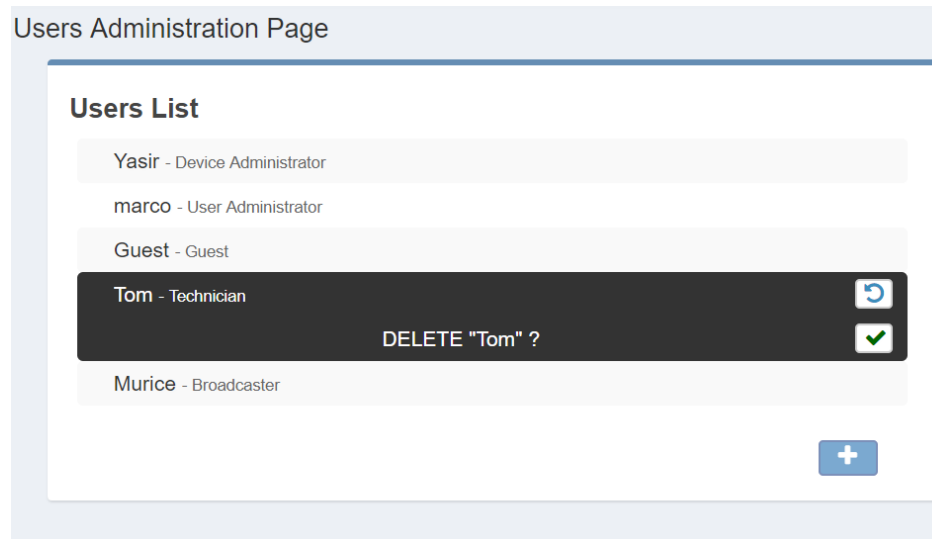
User Name	User Role	Action
Yasir	Device Administrator	
marco	User Administrator	
Guest	Guest	
Tom	Technician	
Murice	Broadcaster	

A blue '+' button is located at the bottom right of the list.

1. Move the mouse to the desired user.



2. Click on the delete button. 
3. In the following mask Click on  to exit from the user deletion or click on  to confirm his deletion.



### Save/Load Users



Here it is possible to **Import** or **Export** a user's data file. After importing the user file the machine will restart.

**Warning:** Please use extreme care when importing user files: there is the risk of not being able to access the target anymore.

## 3.4 SYSTEM SETTINGS

By clicking on the setup you can see all the available setup subpages as shown in the following picture.

In *Setup > General Setup* you have different general parameters to start with the device setup:

### Target References

**Target References**

Host Name Prefix FOX3	Host Name Custom _____	Host Name FOX3
Target Name Ref. ---	Target Location Ref. ---	Target Operator Ref. ---
Target Web Label _____		

**Host Name Prefix:** default field with the Product Name. This parameter is unchangeable.

**Host Name Custom:** customizable parameter. Type here the desired device name. This parameter helps you to recognize the device in your computer network.

**Host Name:** Host Name Prefix(fixed value) + Host Name Custom.

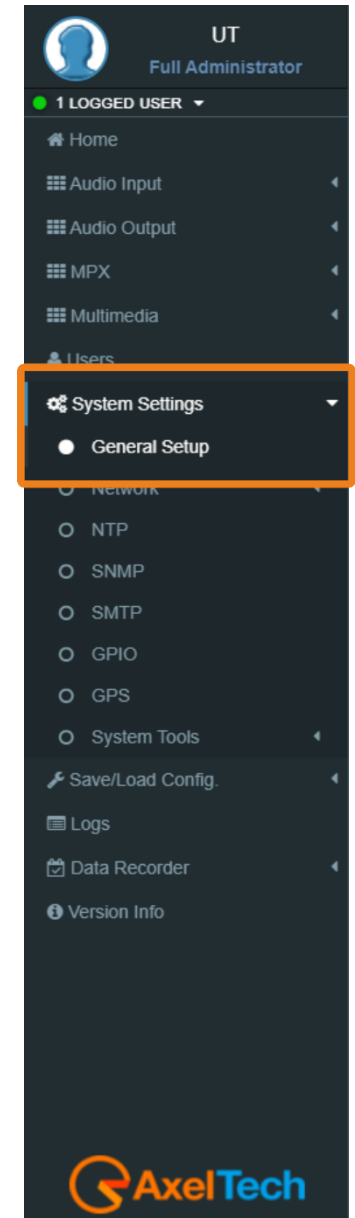
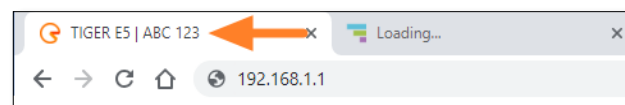
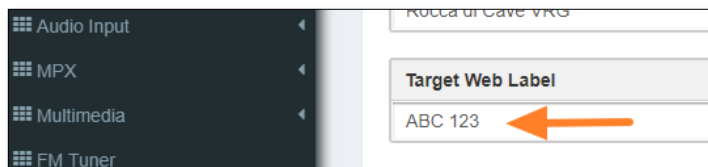
**Target Name Ref.:** Type here a desired name for the device.

**Target Location Ref.:** Type here the device location.

**Target Operator Ref.:** Type here the Operator name.

**Target Web Label:** allows customizing the tab of the web browser of the machine.

**Note:** Web editing is visible only after a page refresh.



### Other Settings

**Other Settings**

Language English ▼	Http Bandwidth High Bandwidth ▼	Local Time Zone Europe/Rome ▼
-----------------------	------------------------------------	----------------------------------

**Language:** Select here the desired device language.

**HTTP Bandwidth:** Select here between GPRS, Low, Normal or High bandwidth.

**Local Time Zone:** Select from the drop-down menu the desired Time Zone.

### REST Settings

**REST Settings**

Active
 Port: 5000

Rest Port
▼

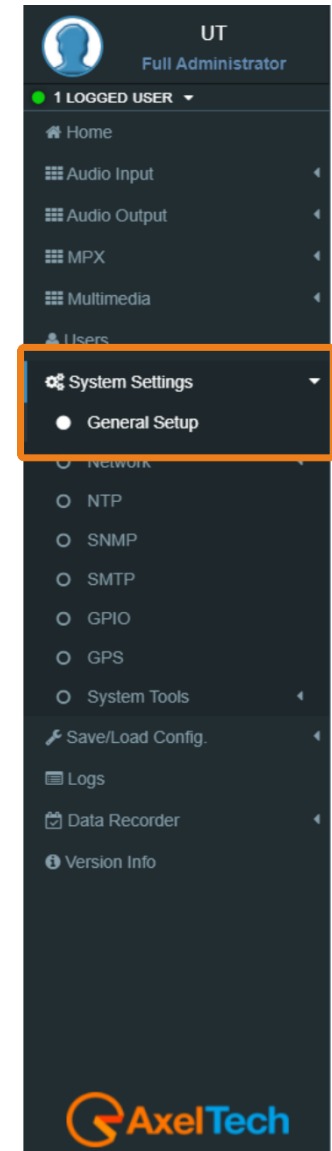
[Download REST interface document](#)

**Active:** Check/Uncheck this box if you want to activate/deactivate the REST API for the device.

**Port:** To use the Rest interface after a port change a reboot is needed.

### SMB/SAMBA Share Settings

For future automation development.



In **MENU > System Settings > Network > eth0** you have different parameters to set configurations for the device network connection and addressing:

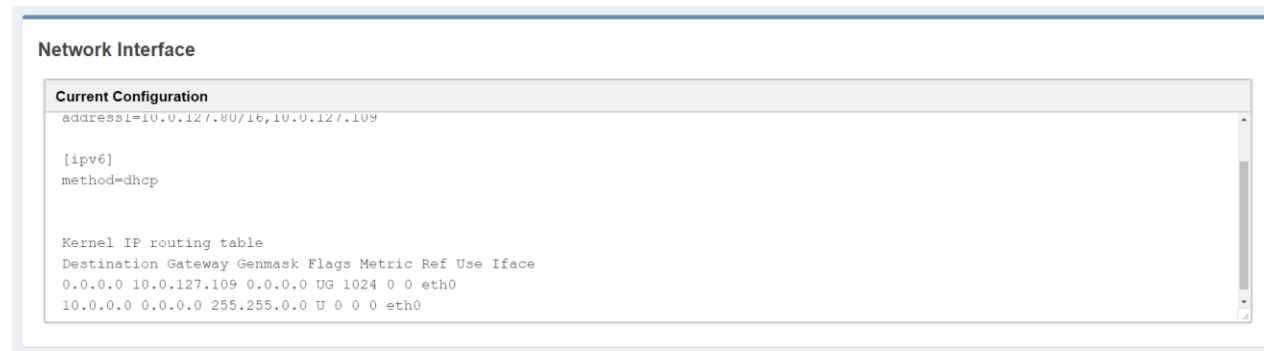
### Mac Address



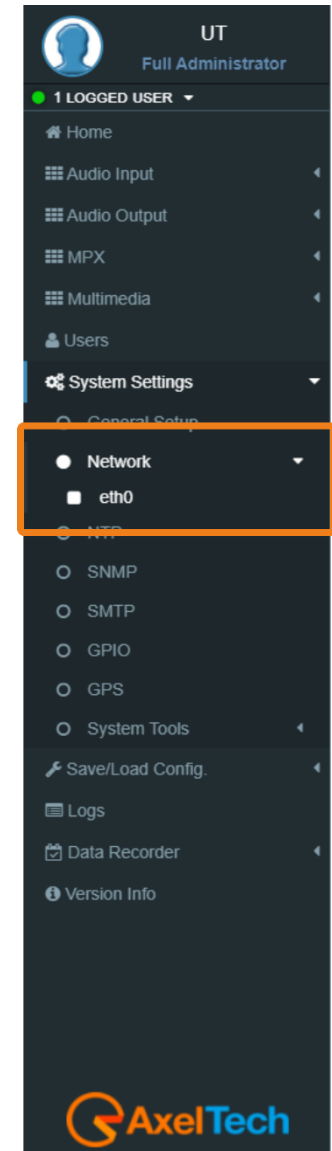
**MacAddress:** Here you can read the device's Mac Address.

In General Configuration you can read all the current network settings.

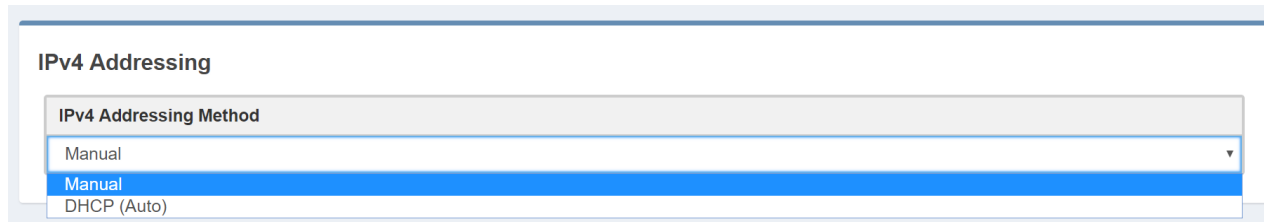
### Network Interface



**Current Interface:** It's a textbox to give a possibility to copy all network configurations.



## IPv4 Addressing

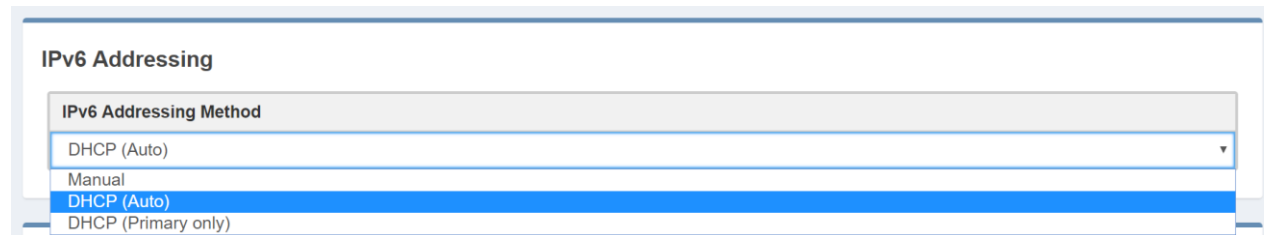


**IPv4 Addressing Method:** choose here the Addressing Method. You can choose between Manual or DHCP(auto).

**Manual:** if you choose Manual you have to insert all IPv4 and DNS IPv4 data.

**DHCP(auto):** a DHCP (Dynamic Host Configuration Protocol) server dynamically distributes network configuration parameters.

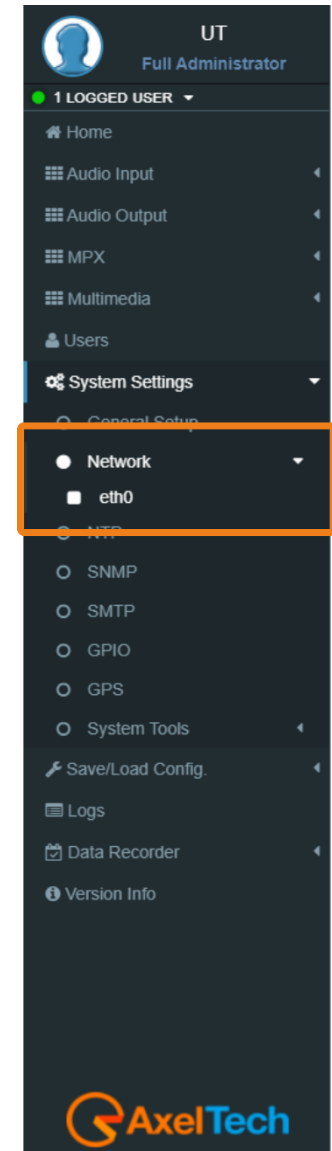
## IPv6 Address



**IPv6 Addressing Method:** choose here the Addressing Method. You can choose between Manual or DHCP(auto).

**Manual:** if you choose Manual you have to insert all IPv6 and DNS IPv6 data.

**DHCP(auto):** a DHCP (Dynamic Host Configuration Protocol) server dynamically distributes network configuration parameters.



In the following setting sections you can fill all the desired IP data if you have set the Manual Addressing Method:

### Primary IPv4

**Primary IPv4**

Address	10.0.127.80
Subnet Mask	255.255.0.0
Gateway (Default)	10.0.127.100

### Additional #1 IPv4

### Additional #2 IPv4

**Additional #1 IPv4**

Address	Subnet Mask
<input type="text"/>	<input type="text"/>

**Additional #2 IPv4**

Address	Subnet Mask
<input type="text"/>	<input type="text"/>

The screenshot shows the system settings menu for a user named 'UT Full Administrator'. The menu is dark-themed and includes options like Home, Audio Input, Audio Output, MPX, Multimedia, Users, System Settings, General Setup, Network, eth0, SNMP, SMTP, GPIO, GPS, System Tools, Save/Load Config., Logs, Data Recorder, and Version Info. The 'Network' and 'eth0' options are highlighted with an orange box.



## DNS IPv4

**DNS IPv4**

**Primary DNS**

172.20.0.1

**Additional #1 DNS**

**Additional #2 DNS**

**Enable(Primary DNS IPv4):** If it is needed, click on the checkbox to enable a Primary DNS IPv4.

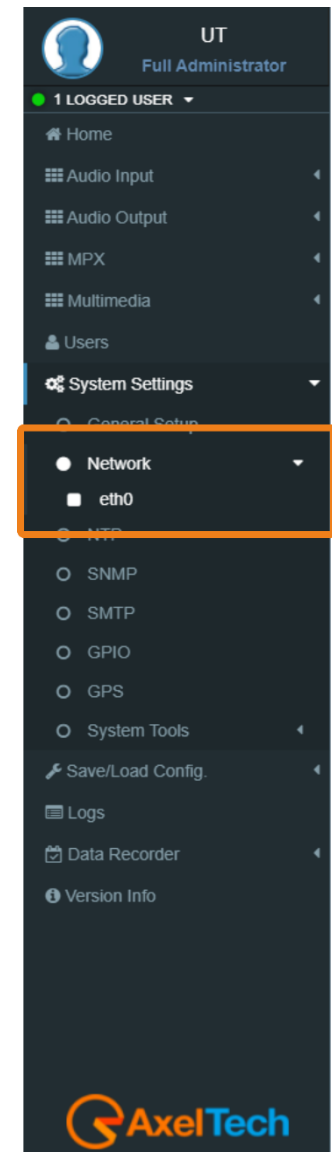
**Primary DNS(IPv4):** type here the IP of the desired DNS server.

**Enable(Additional #1 DNS IPv4):** Check it to enable the first additional DNS IPv4 Server.

**Additional #1 DNS(IPv4):** type the IP of the DNS server.

**Enable(Additional #2 DNS IPv4):** Check it to enable the second additional DNS IPv4 Server.

**Additional #2 DNS(IPv4):** type the IP of the DNS server.



## DNS IPv6

**DNS IPv6**

**Primary DNS**

**Additional #1 DNS**

**Additional #2 DNS**

**Enable(Primary DNS IPv6):** If it is needed, click on the checkbox to enable a Primary DNS IPv6.

**Primary DNS(IPv6):** type here the IP of the desired DNS server.

**Enable(Additional #1 DNS IPv6):** Check it to enable the first additional DNS IPv6 Server.

**Additional #1 DNS(IPv6):** type the IP of the DNS server.

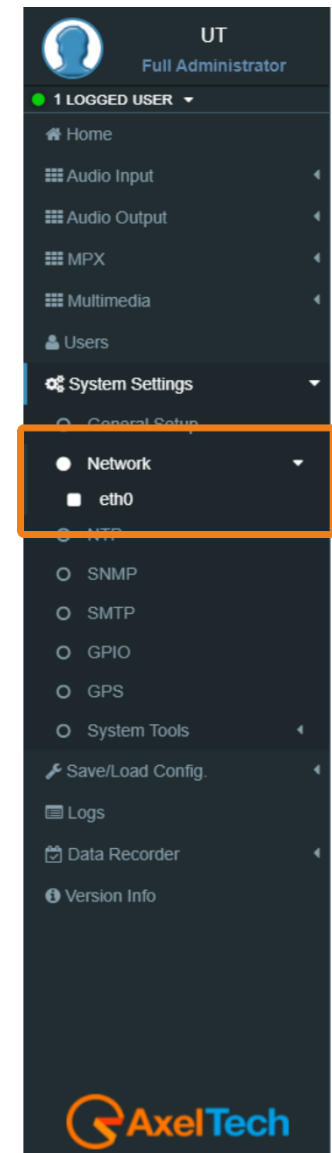
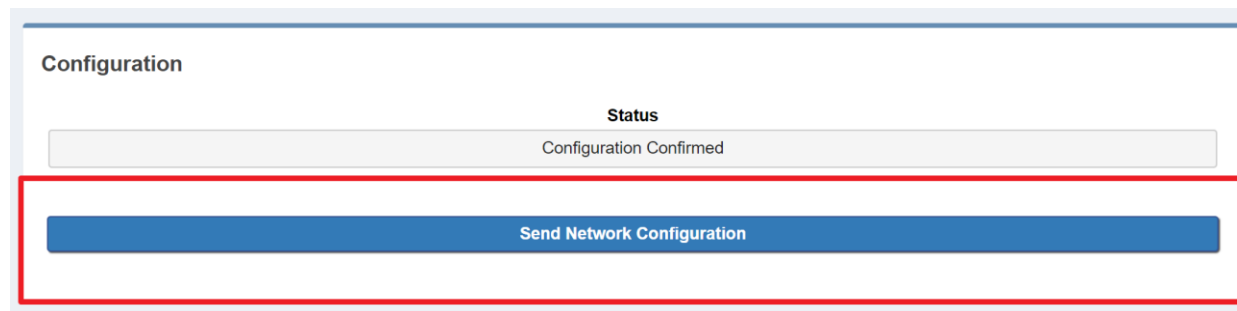
**Enable(Additional #2 DNS IPv6):** Check it to enable the second additional DNS IPv6 Server.

**Additional #2 DNS(IPv6):** type the IP of the DNS server.

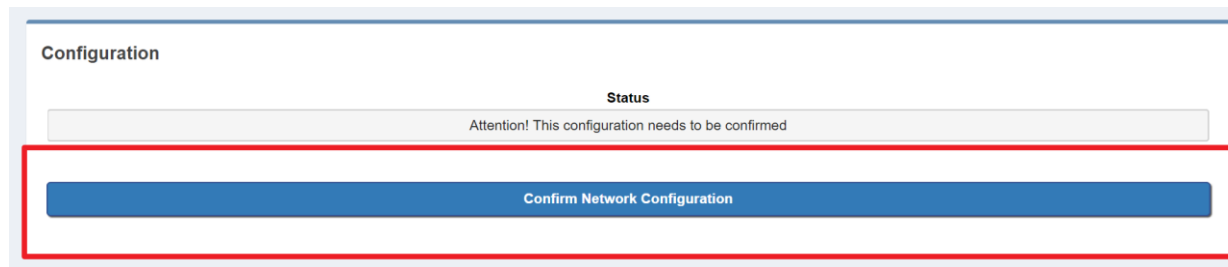
## CONFIGURATION

The next two parameters are used to save all previous network settings. The first following button gives a first confirmation of the network parameters, but to make it really effective it is necessary to access the new IP within 5 minutes and it is necessary to press Confirm Network Configuration. This double security is useful in case you have entered the wrong addresses or in case there are network problems.

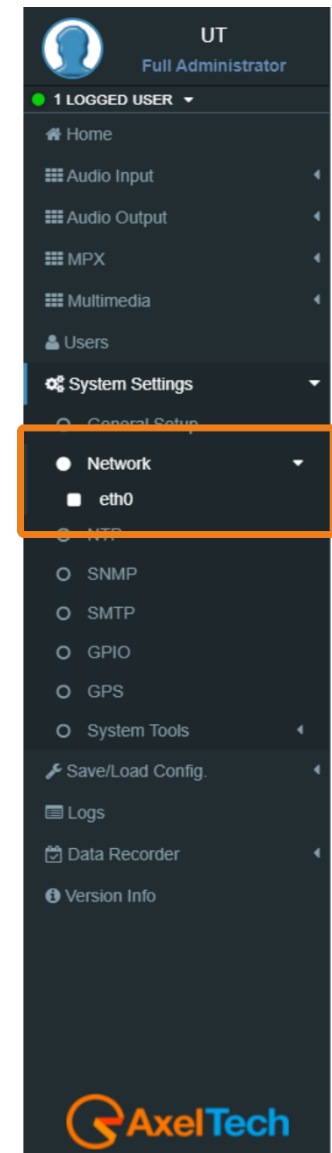
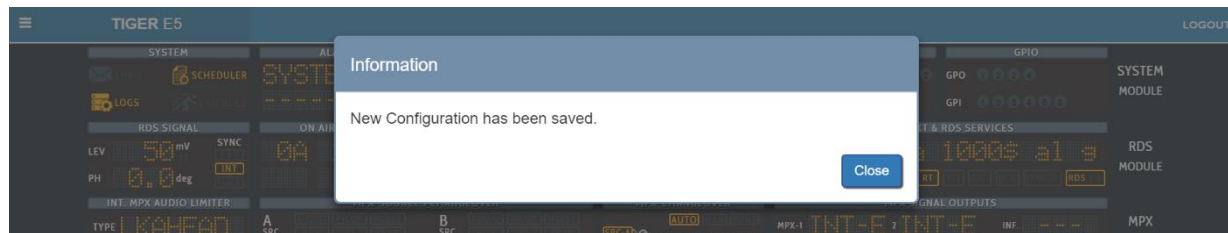
**Send Network Configuration:** By clicking on this button you send the new network configuration.



To confirm the process you have to connect to the new set IP and press **Confirm Network Configuration** from: [Setup > Network > eth0](#)



**Confirm Network Configuration:** If you do not confirm the new configuration within 5 minutes, the last changes are not implemented. Then you have to reconnect by using the **old IP address** and [Send Network configuration](#) again. After the confirmation of the new IP address you will see the following message:



**Network Time Protocol.** This section contains all the settings related to NTP features. it is, in fact, possible to connect the device to an NTP server and in this way, the device will synchronize its own date and time with the server.

You can set up three NTP servers. In case there are problems on the first server, the device goes to the second and so on up to the third.

In Setup > NTP you have all the settings related to the Network Time Protocol. Here you can synchronize the device with different desired NTP Servers' clock times to start with them the data packet exchange.

### GENERAL SETTINGS

NTP ( Setup )

**General Settings**

Ntp On

Time Sync: 6 hours

Sync Retries: 3

Local Time Zone: Europe/Rome

**NTP ON:** click on the checkbox to enable/disable the Sync with the desired NTP server

**TYME SYNCH:** decide the sync interval

**SYNC RETRIES:** decide the sync retries in case of failure

**LOCAL TIME ZONE:** Select the Local Time Zone related to the geographical device position.

Some suggested **NTP Servers** around the world:

europa.pool.ntp.org

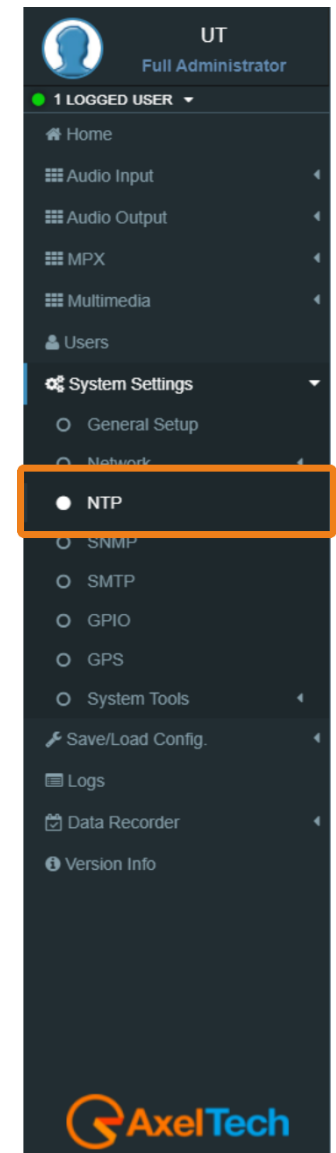
asia.pool.ntp.org

africa.pool.ntp.org

north-america.pool.ntp.org

south-america.pool.ntp.org

oceania.pool.ntp.org



## PRIMARY NTP SERVER

<b>Primary NTP Server</b>	
IP Address / Url 0.pool.ntp.org	NTP Version Auto
<b>Additional #1 NTP Server</b>	
IP Address / Url 1.pool.ntp.org	NTP Version Auto
<b>Additional #2 NTP Server</b>	
IP Address / Url 2.pool.ntp.org	NTP Version Auto

**IP ADDRESS / URL:** type the IP/URL of the desired primary NTP server to synchronize the device clock with the server clock.

**NTP VERSION(AUTO, V1, V2, V3, V4):** select the desired NTP version.

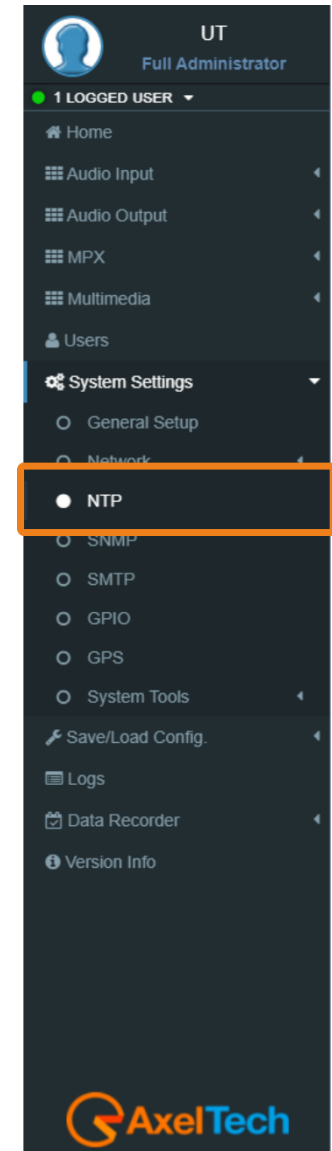
## NTP Events

<b>NTP Events</b>	
<input checked="" type="checkbox"/> masked	NTP Warning
<input checked="" type="checkbox"/> masked	NTP Alarm

**Masked/Unmasked NTP Warning:** the warning control records in the logs section a connection problem with one or more DNS Servers. Select Mask to enable the record or Unmask to disable it

**Masked/Unmasked NTP Alarm:** the Alarm control records in the logs section a connection problem with all DNS Servers. Select Mask to enable the record or Unmask to disable it.

The event section is useful to mask/unmask problem detection with the connection between the device and the NTP Servers.



The **Simple Network Management Protocol** (SNMP) is used mostly in large networks to monitor network-attached devices for conditions that warrant administrative attention. The RDS encoder supports SNMP.

You can up all parameters related to the **Simple Network Management Protocol**. Here you can define parameters for different **NMS** (Network Management Server) for the network and trap management.

### SNMP Settings

SNMP ( Setup )

**SNMP Settings**

Snmp Agent Enabled

Read Community  
public

Write Community  
private

Heart Signal Trap  
Off

Restart SNMP Interface

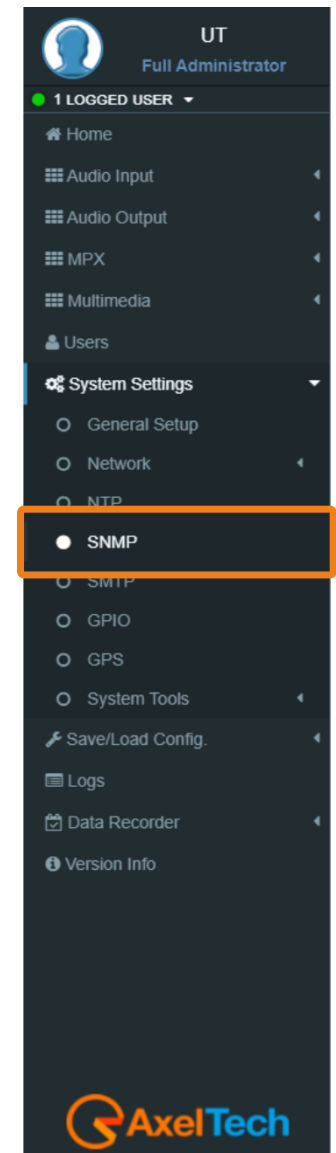
**SNMP Agent Enabled:** click on this check box to enable or disable the SNMP agent for the warning or alarm traps.

**Read Community:** it is set on “public” by default. It is the Community String related to the SNMP requests from NMS to the device. If you want to protect your data change it here and in the NMS.

**Public/Private:** it is set to “private” by default. It is the Community String related to the SNMP device settings from NMS to the device. To have better protection in the Write Community change the Community String here and in the NMS.

**Heart Signal Trap:** select between ON/OFF if you want to enable/disable the device Heartbeat signal trap.

**Restart SNMP Interface:** This command restarts the SNMP interface.



Here can set up all parameters related to the **Simple Mail Transfer Protocol**. you can define parameters for different SMTP servers for the e-mail notification on the device's functioning.

### SMTP Settings

#### SMTP Settings

SMTP On

Delivery Interval  
6 hours

Sender E-Mail Name FOX3	Sender Display Address noreply@mail.com	Sender E-Mail Subject [FOX3] Periodic Report Message
----------------------------	--	---

---

#### SMTP Receivers

Receiver #1 -	Receiver #2 -
Receiver #3 -	Receiver #4 -

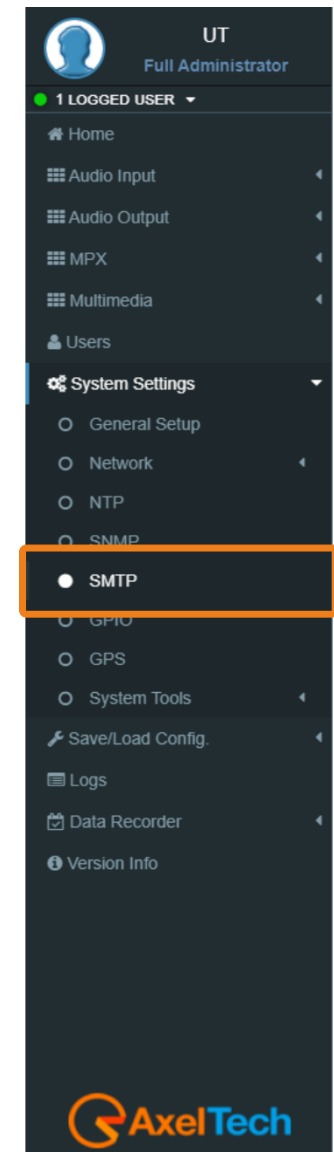
**SMTP On:** Click on the checkbox to activate/deactivate the SMTP service

**Delivery Interval:** Select the desired Delay Interval for the Email Notifications. If **SMTP On** is checked you will have Email Notifications for every Delivery Interval.

**Sender E-Mail Name:** Type here a standard Sender E-mail Name

**Sender Display Address:** Type here the default Sender Display Address. Receivers will read this sender's address.

**Sender E-Mail Subject:** Email Receivers will read this E-Mail Subject.



## MAIN SMTP Server Settings

**Main SMTP Server Settings**

Description  
---

Server IP Address / Url Port  
25

Security Authorization Method  
None None

Username Password

**Description:** type here a short description of the desired main SMTP Server

**Server IP Address / Url:** the IP Address / Url of your SMTP server domain

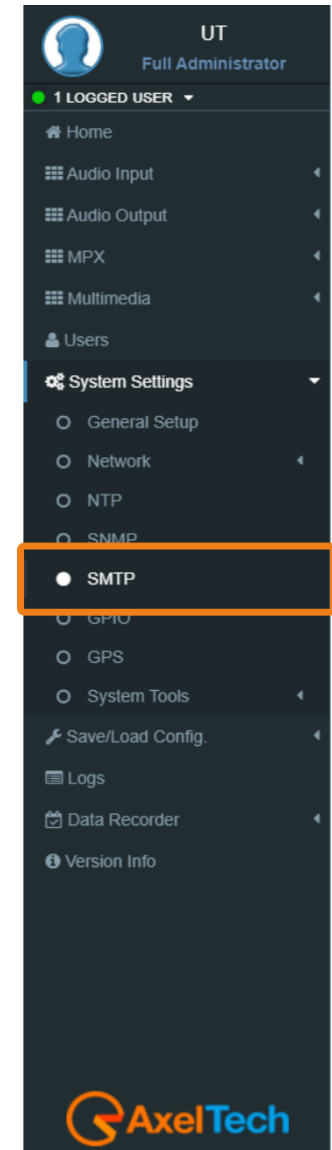
**Port:** TCP port for the communication

**Security protocol:** Network Security protocol

**Authorization Method:** choose the desired method from the list

**Username:** email username

**Password:** email password





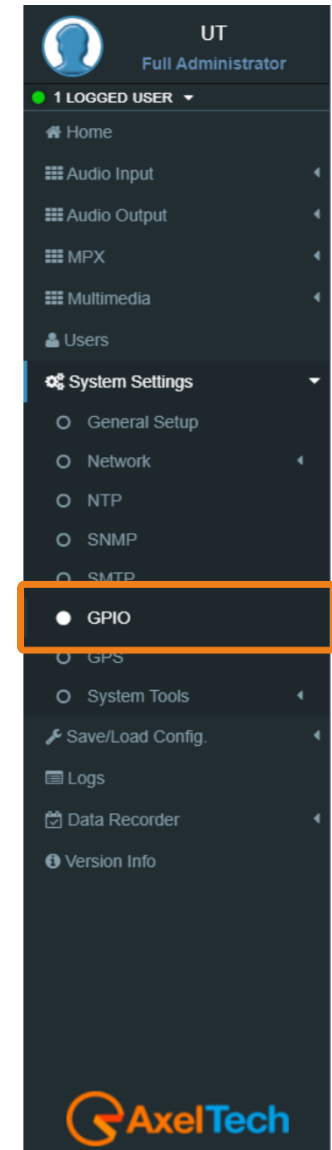
In [MENU > Home > System Settings > GPIO](#) you can set up all parameters related to the General Purpose **Input/Output**. Here you can define the behavior of different **GPI** or **GPO** devices.

**GPI Logic**

**Positive Logic:** the event is logged when the GPI circuit is closed.

**Negative Logic:** the event is logged when the GPI circuit is opened.

**GPI Events:** select masked but the GPI in action. Unmasked to not in action it.



## GPO LOGIC

**GPO Logic**

**GPO 1**  
Positive Logic

**GPO 2**  
Positive Logic

**GPO 3**  
Positive Logic

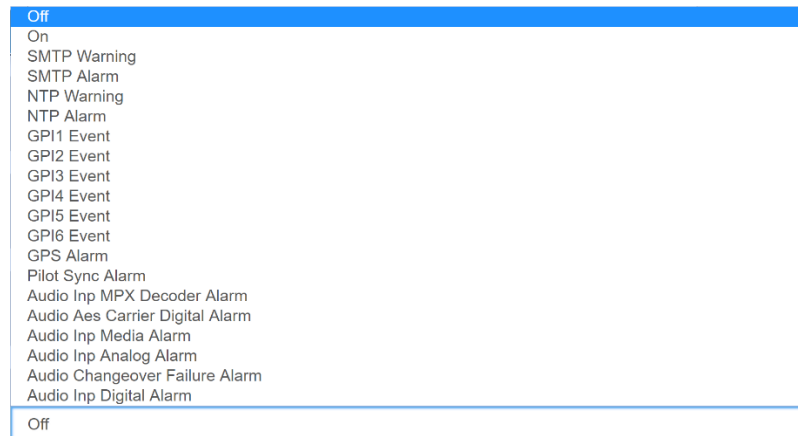
**GPO 4**  
Positive Logic

**Positive Logic:** the generated event is the closing of the GPO circuit.

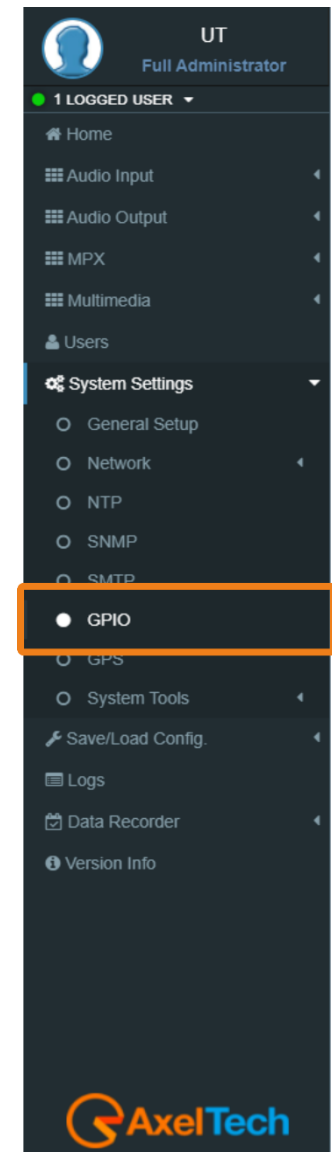
**Negative Logic:** negative logic: the generated event is the opening of the GPO circuit.

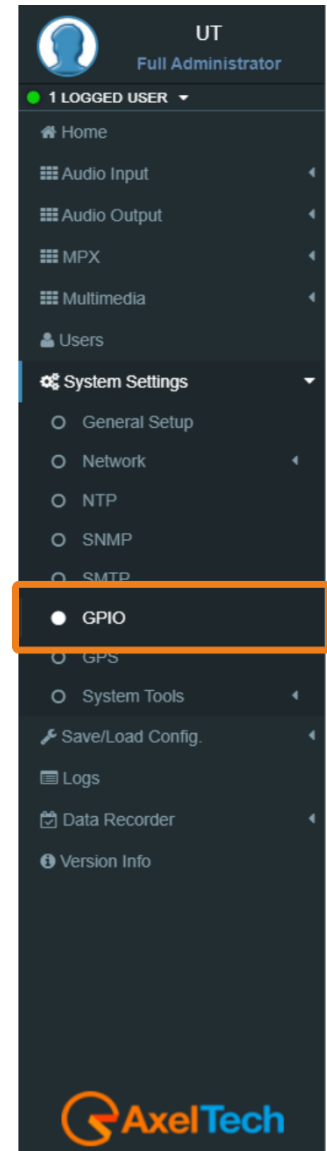
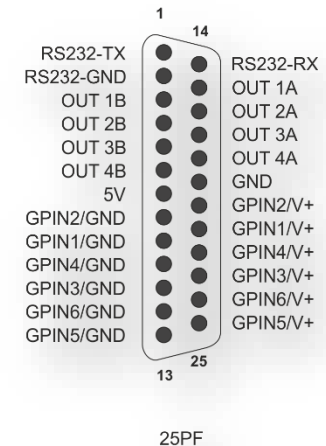
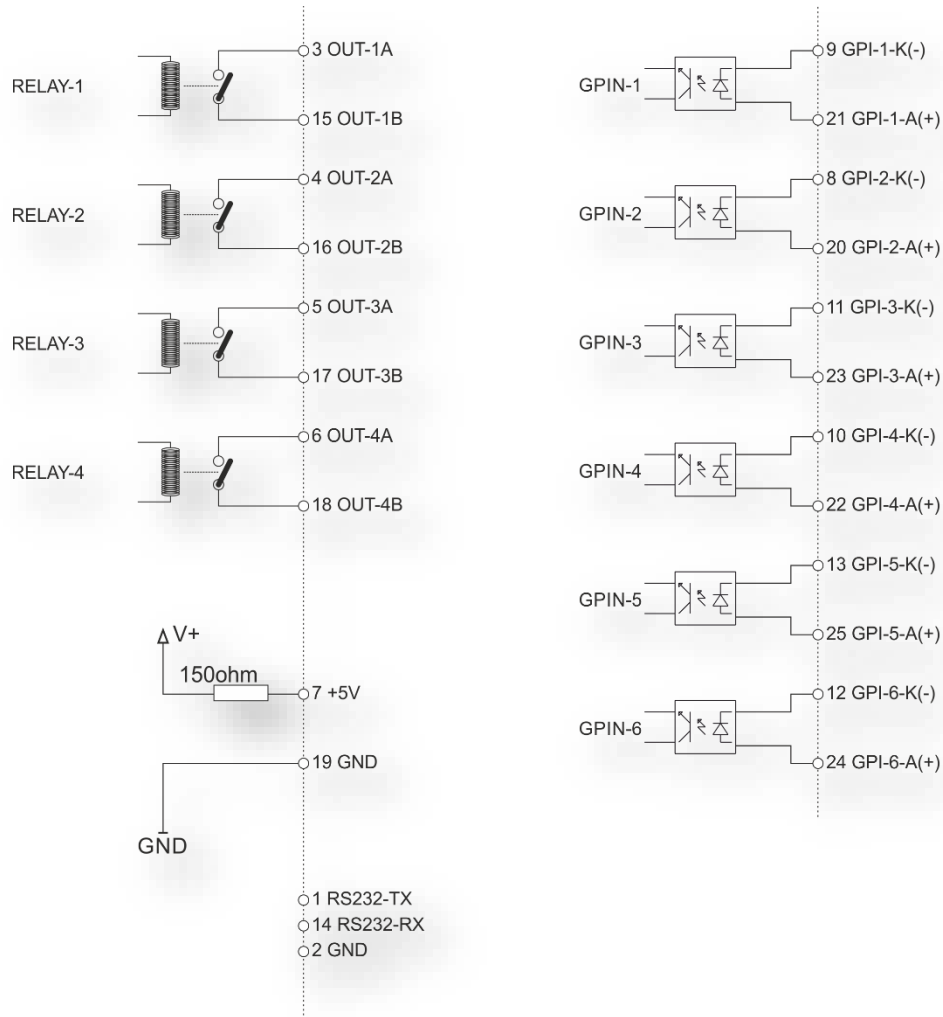
In **GPO Event Notifications** you can decide to root to the GPO device: no Event Source(OFF), to root all Event Sources(ON), to root a selected Event Source (for example, NTP Alarm).

in every GPO menu select the event source that you want to listen to, as shown in the following picture:



**Pilot Sync Alarm:** alarm starts when the frequency of the encoded RDS/RBDS signal is out of sync with an available external pilot(analog MPX frequency / digital frequency by the SYNC/MPX inputs).





In [MENU > Home > System Settings > GPS](#) you can set up all parameters related to the **Global Positioning System**. Here you can define parameters for the desired **GPS** device for the satellite geolocation.

### General Settings

**General Settings**

Gps On

Gps Device Not Found	GPS Lock Status Unlocked	GPS Satellites in view -
-------------------------	-----------------------------	-----------------------------

Get UTC from GPS

GPS Latitude --	GPS Longitude --	GPS Date & Time Last Value --
--------------------	---------------------	----------------------------------

**Gps On:** Enable/Disable the GPS device

**Gps Device:** Name of the GPS device connected

**GPS Lock Status:** Lock/Unlock the GPS status

**GPS Satellites in view:** Satellites Number in view

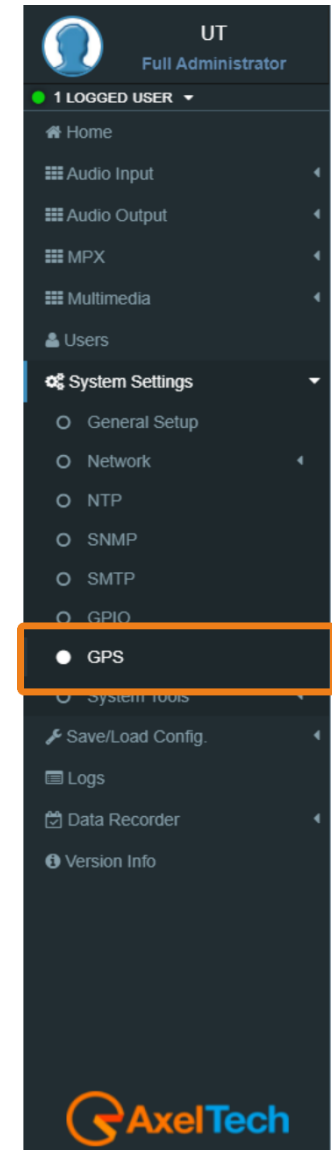
**GPS Latitude:** Type here the Latitude coordinate. If GPS is turned on this value is automatically inserted

**GPS Longitude:** Type here the Longitude coordinate. If GPS is turned on this value is automatically inserted

**GPS Date & Time Last Value:** Type here the Date and Time. If **Get UTC from GPS** is enabled this value is automatically inserted

### GPS Events

**Masked/Unmasked GPS Alarm:** the alarm control logs a connection problem with the GPS device. Select Masked to enable the log or Unmasked to disable it



### 3.4.8.1 UPDATES

#### LOAD A NEW FIRMWARE FILE

To load a new firmware file inside the device you have to connect with it through an FTP Client (in this example we use Filezilla). The device must be reachable.

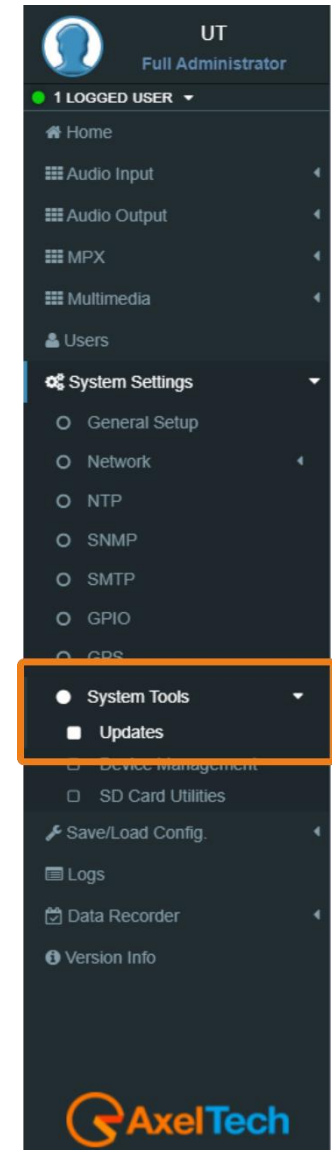
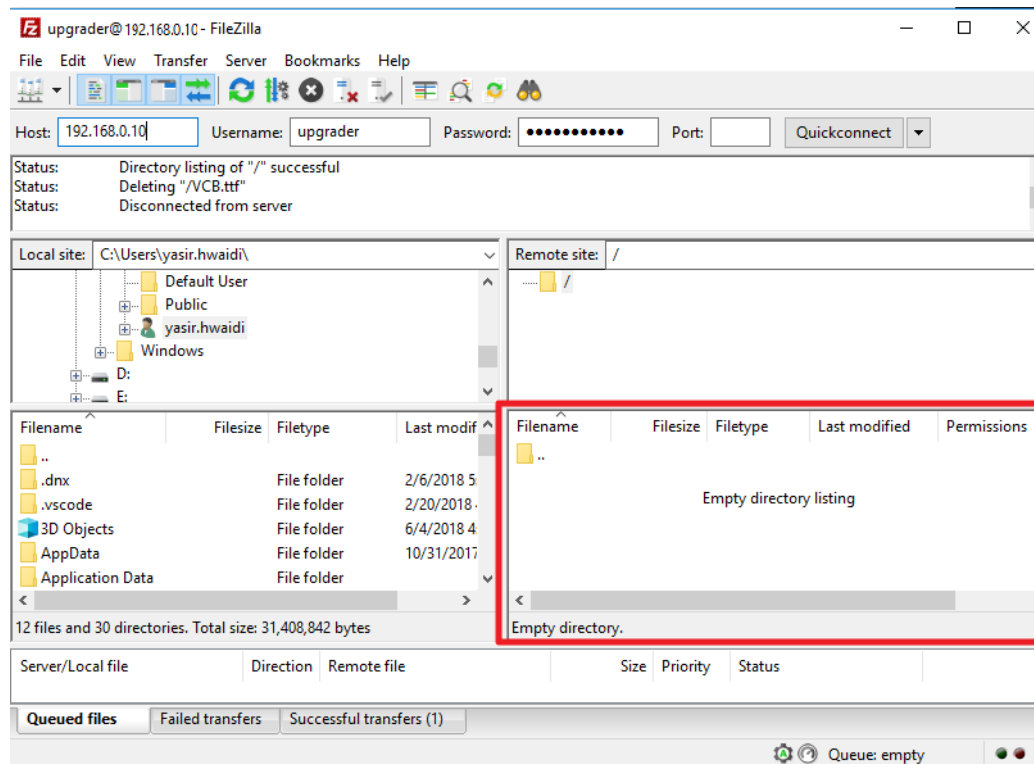
In the following line you can find the FTP Credentials useful for the connections:

Host: **device IP** XXX.XXX.XXX.XXX      User: **upgrader**      Password: **ax-upgrader**

The FTP client will connect directly to the right upgrader folder (it will not be possible to navigate in different folders).

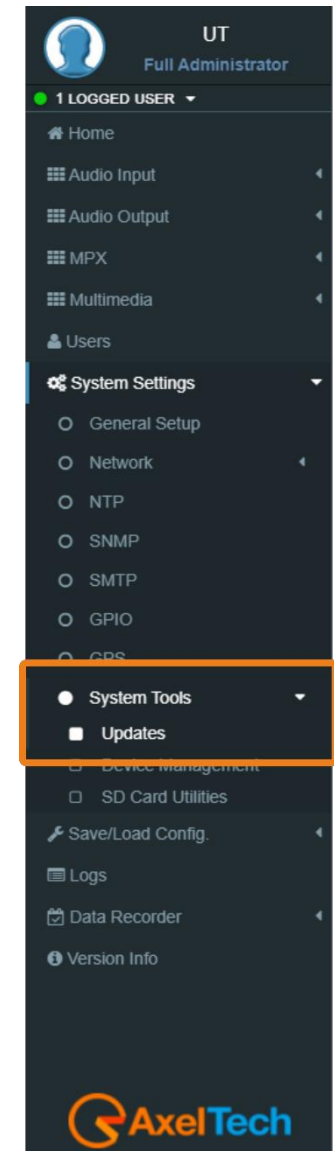
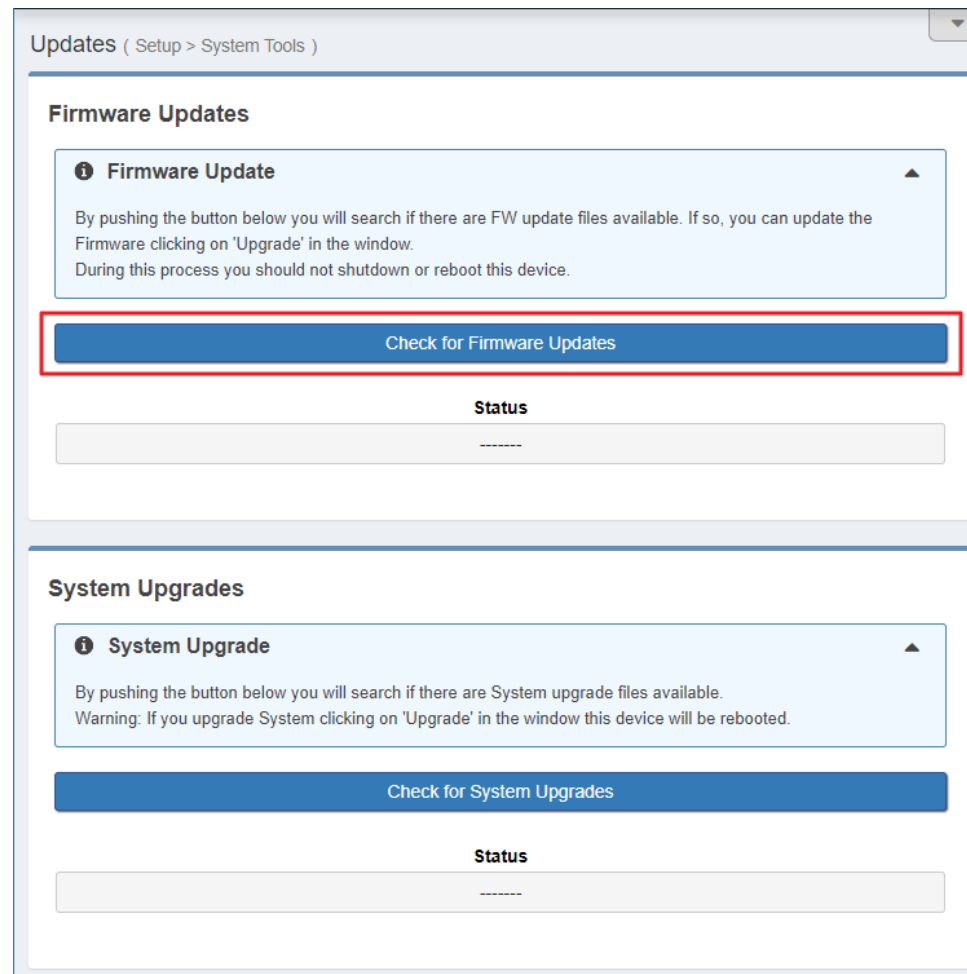
Paste the new firmware file in the red area as shown in the picture by drag and drop.

**N.B:** The update file must be provided by **AXEL TECHNOLOGY**.



## FIRMWARE UPDATES

After uploading the update file into the device by the FTP Client. Now we have to go to the web interface to login in and follow these steps [SETUP > SYSTEM TOOLS > UPDATES](#). By pushing the **Check for Firmware Updates** you will search if there is an FW update file available. If so, you can update the Firmware by clicking on 'Update' in the window that will appear. During this process, you should not shut down or reboot this device. When it is ready it will REBOOT the device automatically. Finally, it will be ready to use.



### LOAD A NEW SYSTEM UPGRADE FILE

To load a new system upgrade file inside the device you have to connect with it through an **FTP Client** (in this example we use Filezilla). The device must be reachable.

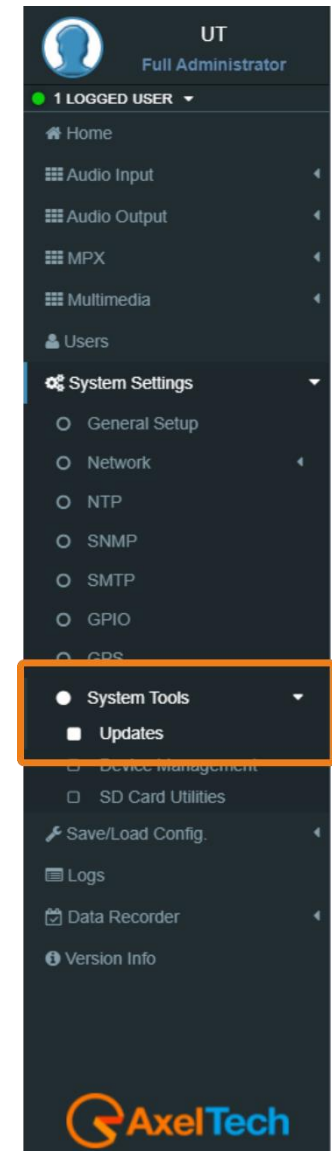
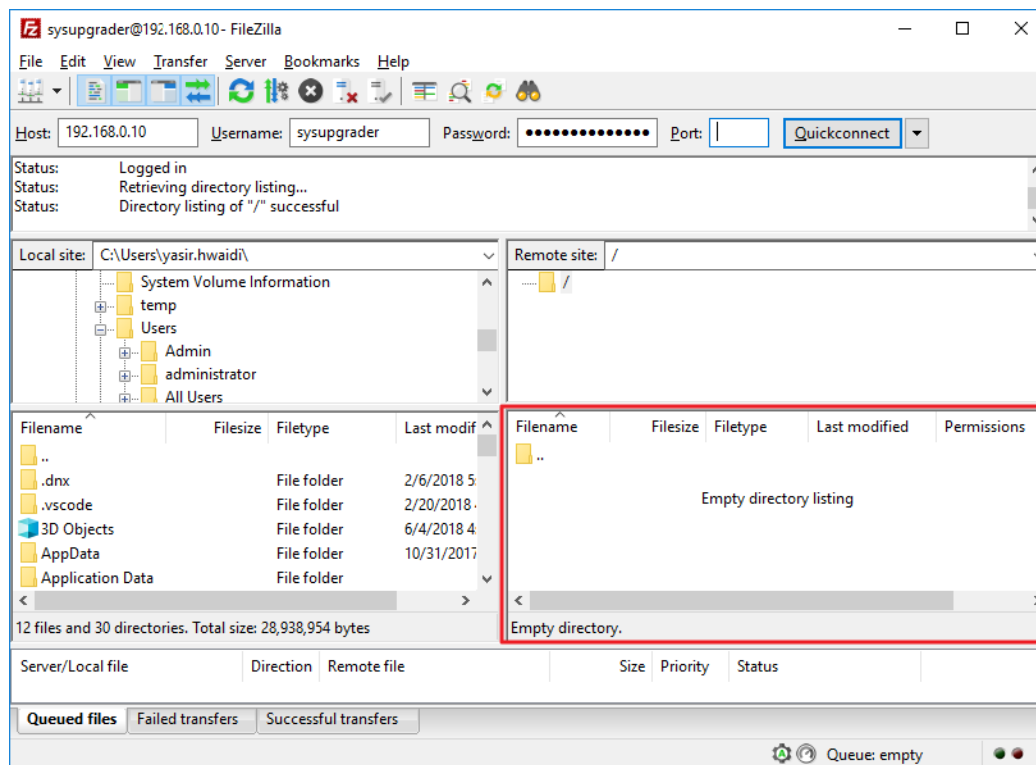
In the following line you can read the FTP Credentials useful for the connections:

Host: **device IP XXX.XXX.XXX.XXX**      User: **sysupgrader**      Password: **ax-sysupgrader**

The FTP client will connect directly to the right upgrader folder (it will not be possible to navigate in different folders).

Paste the new firmware file “**SysUpgrade-XXX.tgz**” in the red area as shown in the picture by drag and drop.

**N.B:** The update file must be provided by **AXEL TECHNOLOGY**.



After uploading the system update file into the device by the FTP Client. Now we have to go to the device web interface to login in and follow the steps [SETUP > SYSTEM TOOLS > UPDATES](#). By pushing the **Check for system Upgrades** you will search if there is an FW update file available. If so, you can update the system by clicking on **'Upgrade'** in the window that will appear. During this process, you should not shut down or reboot this device. When it is ready it will REBOOT the device automatically. Finally, it will be ready to use.

The screenshot shows the 'Updates' page within the 'Setup > System Tools' menu. It is divided into two main sections: 'Firmware Updates' and 'System Upgrades'. Each section contains an information box with instructions, a blue button to check for updates, and a 'Status' field. The 'Check for System Upgrades' button in the second section is highlighted with a red rectangular border.

This screenshot shows the system settings menu for a user named 'UT Full Administrator'. The menu includes options like Home, Audio Input/Output, MPX, Multimedia, Users, and System Settings. Under 'System Settings', there are sub-menus for General Setup, Network, NTP, SNMP, SMTP, GPIO, and GPS. The 'System Tools' and 'Updates' options are highlighted with an orange rectangular border.



### 3.4.8.2 DEVICE MANAGEMENT

#### A. Reboot Device

This button will cause a device to reboot.

#### B. Shutdown Device

This button will cause a device shutdown.

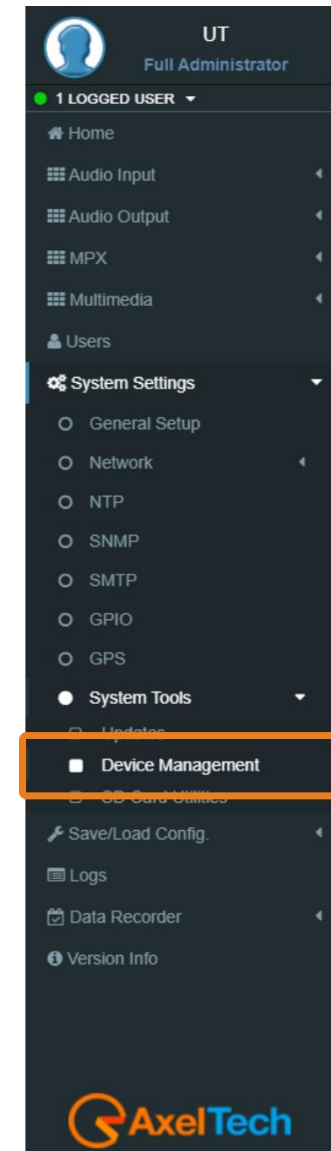
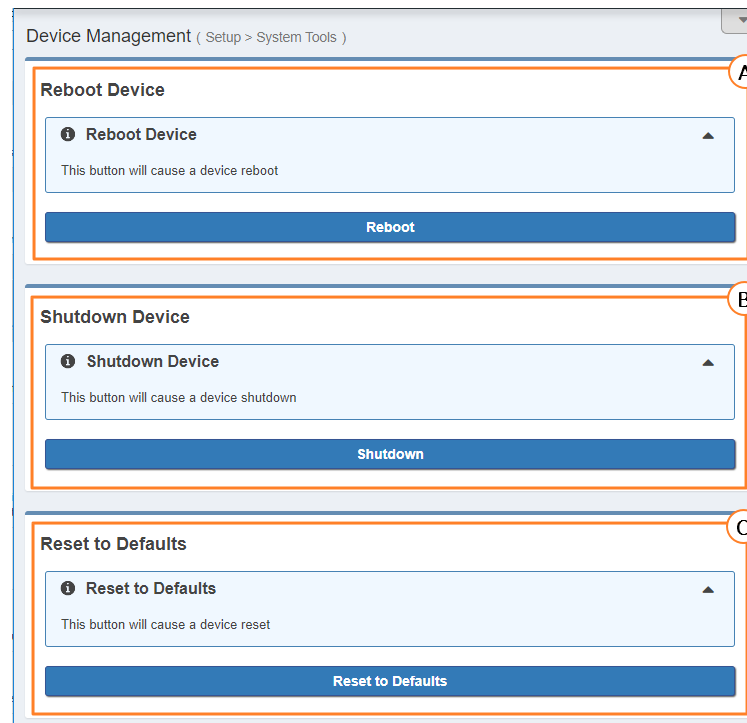
#### C. Reset to Defaults

This button will cause a device to reset.

Warning:

This operation will erase ALL target data including saved presets and users.

After confirmation device will restart.



### 3.4.8.3 SD CARD UTILITIES

#### SD STATUS

SD Found	SD Structure
No	Missing SD

**SD Found:** If an external SD is found, this status will be OK, otherwise to use the tools below you need to insert (or change) an SD card in the external back slot.

**SD Structure:** The external SD card must be formatted and prepared with a particular folder tree. If this status is not OK, you need to format & prepare it using the format button.

#### FORMAT AND PREPARE

This procedure will format the external SD card and prepares it to receive data.

#### CLONING TOOLS

Clone to SD	
Status	-----
Cloning Device	▼
Clone from SD	
Status	-----

**Clone to SD:** This procedure will create a clone data structure on the external SD card.

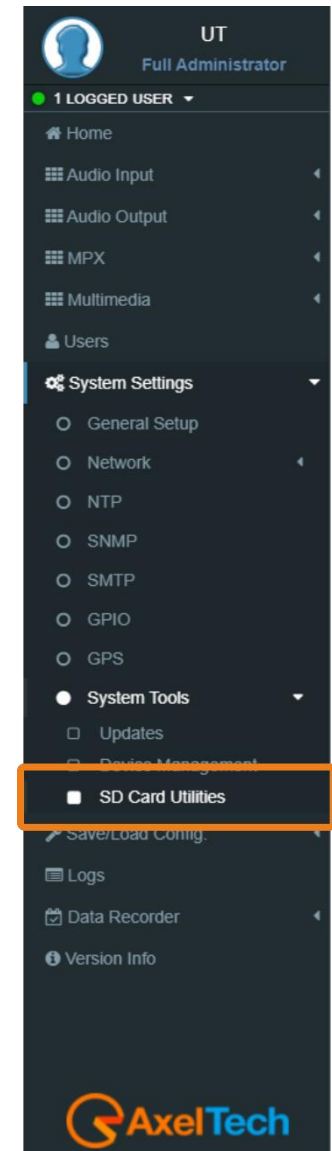
**Clone from SD:** This procedure will create a clone data structure from the external SD card.

Important: The system will be offline for a few minutes.LOGS

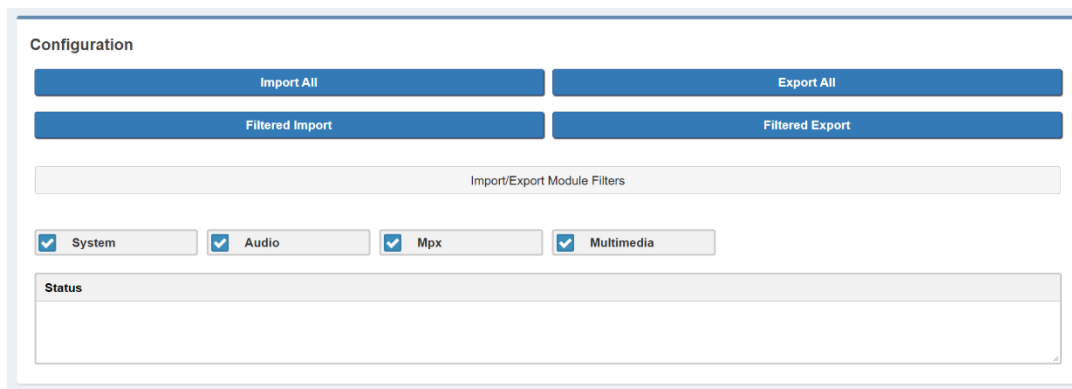
**Very Important:** Do not power off the target or remove the SD card immediately after the cloning process has finished!

Do not remove the SD card if the power is ON.

Wait at least a couple of minutes before shutdown the device.

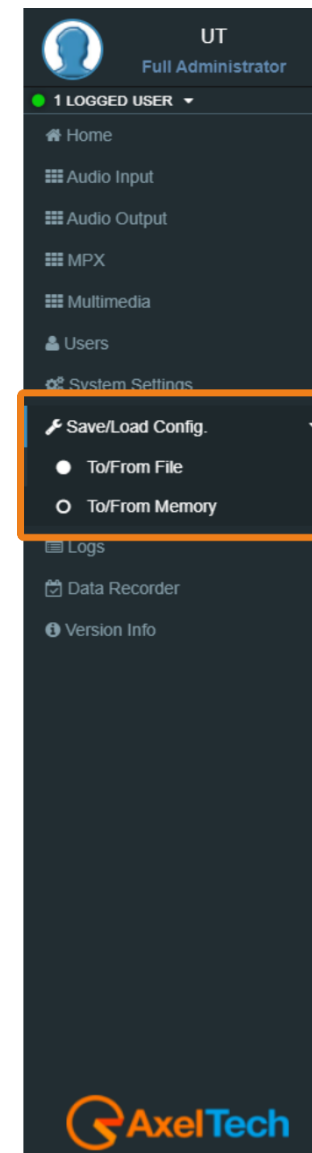
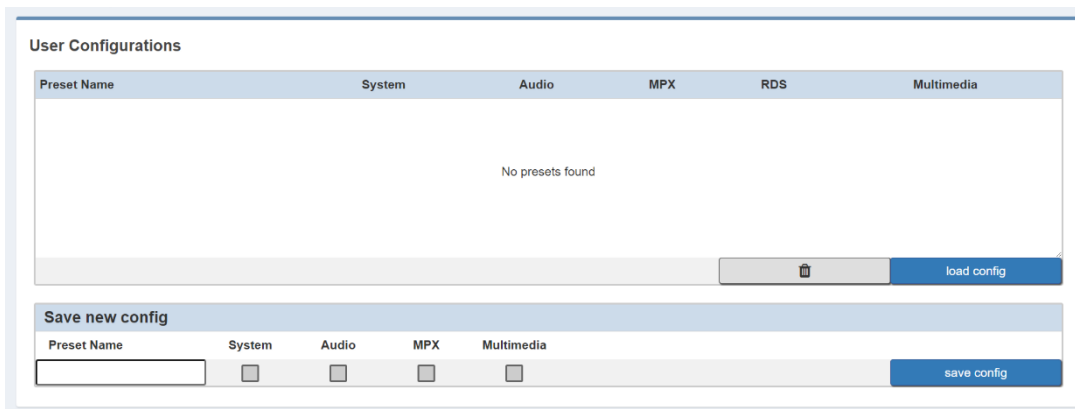


### 3.1 SAVE/LOAD CONFIG.



**Import:** Import an existing .cnf file (json format) with all configs.

**Export:** Export a .cnf file (JSON format) with all configs in the desired folders.



## 3.2 LOGS

In the Logs section, you can read all the device Log lists.

You can see four Logs Sections. For every section, you can do Refresh, Load All Logs from the device beginning or you can Clear it. All user classes can click some of these three buttons.

### Logs - User Permissions:

**Administrator, technician, broadcaster, default administrator** - Logs Read&Write, Logs Debug Hide)

**Super Technician** (Logs Hided, Logs Debug Read&Write)

**Guest** (Logs Read&Write, Logs Debug Hide)

In this section, you can read for the user logs changes or user logins or logouts.

In this section, you can read the logs of all detected events if they are **unmasked** in the related section.

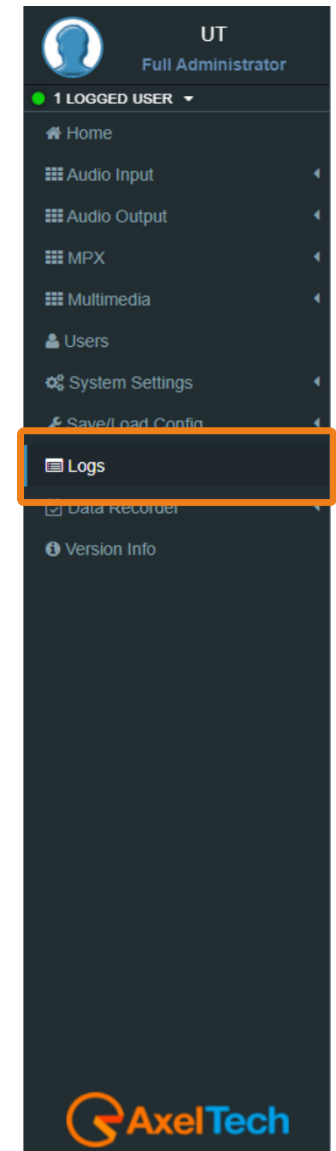
In this section, you can read the logs of sent notifications or alarms.

**Events**

```

2020-03-17 15:00:57 - [SYSTEM] ***** START *****
2020-03-17 11:35:00 - [SYSTEM] ***** START *****
2020-03-02 12:24:57 - [SYSTEM] ***** START *****
2020-02-28 10:05:48 - [SYSTEM] ***** START *****
2020-02-27 19:47:59 - [SYSTEM] ***** START *****
2020-02-27 12:46:30 - [Network] New Configuration has been confirmed
2020-02-27 10:29:46 - [SYSTEM] ***** START *****
2020-02-27 08:01:04 - [SYSTEM] ***** START *****
2020-02-26 23:13:55 - [SYSTEM] ***** START *****
2020-02-25 18:14:29 - [SYSTEM] ***** START *****
2020-02-25 18:05:21 - [SYSTEM] ***** START *****
2020-02-25 17:48:11 - [SYSTEM] ***** START *****
                
```

Refresh
Load All
Clear



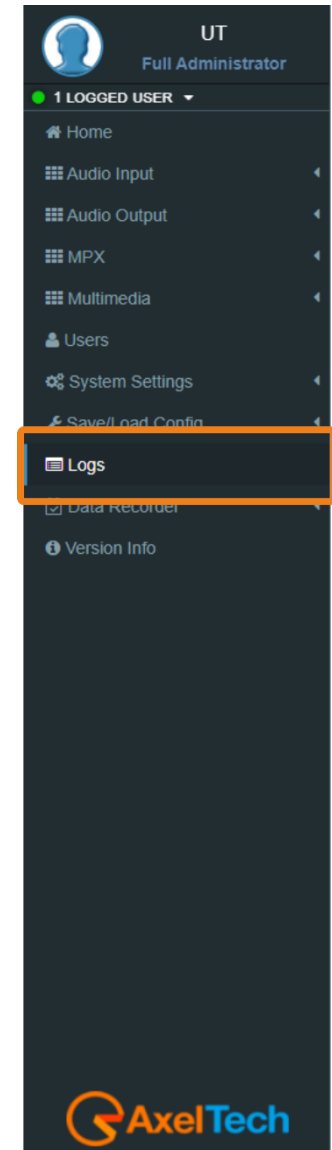
## 3.3 DATA RECORDER

### 3.3.1 SETTINGS

#### Data Recorder settings

Here it is possible to choose which elements (levels or alarms) will be monitored by the system. Not selected elements (-----) will be ignored.

**Note:** Mark checks below to allow slot variables to change.



### 3.3.2 QUERY/EXPORT ( DATA RECORDER )

#### Query settings

Here it is possible to choose the period interval from the start date, the query export time interval and the items to be queried. Results would be shown or exported in a compatible format (csv).

## 4. TECHNICAL SPECS

GENERAL	
Dimension	485 x 44 x 240 mm (1 rack unit)
AC Rate Voltage	230Vac / 110Vac +/- 10% - 30VA – Connector IEC 3-Wire detachable
AC Frequency	50 Hz / 60 Hz +/- 4%
Power factor	0.9
Type of power supply	Switching power supply
Weight	≈ 3.5 Kg
Operating Temperature	-5°C / +50°C up to 95% non condensing
Max altitude	Up to 3000 meters above the marine level
Safety Standard	CE, ETL, UL.
RFI	The device has been designed to work in strong RF Fields and it is provided with Standard RFI filters. Necessary RFI filters are standard and the same are provided.
Grounding	One more earth terminal is provided in the device body to connect audio earth connection
Analog Input	
Inputs Number	1-Stereo
Connectors:	2XLR, female - Electronically balanced – EMI Suppression
A/D Conversion	24bit Sigma-Delta Conversion (Crystal CS4272)
AD Clipping Point	+24.0dBu
Operative Nominal Level:	From -12.0dBu to +13.0dBu (0.1dBu Step)-Software adjustable.
Line Impedance	10 kΩ (Electronically balanced selectable)
Distortion:	less than 0.01% TDH+NOISE (0.0dBu 1Khz)
AD Dynamic Range:	108 dB RMS (110 dB A weighted)
Input Modes:	Stereo, Mono (Left), Mono (Right), Mono (Left+Right)
CMRR input	>60 dB (20 Hz to 20 kHz)
FM-Frequency range	5 Hz-15 kHz (+/- 0,5dB when processing is disabled)
DAB-Frequency range	5 Hz-20 kHz (+/- 0,5dB when processing is disabled)

Digital Input	
Inputs Number	2 (1 <sup>st</sup> for audio, 2 <sup>nd</sup> for audio or Digital MPX)
Connectors:	XLR, female – Electronically balanced– EMI Suppression
Format	AES3/EBU
Input impedance	110 $\Omega$
Sample rates	32 kHz / 44.1 kHz / 48 kHz /96 kHz / 192 kHz with src and jitter attenuation
Operative Nominal level:	From 0.0 dBFs to -25.0 dBFs (0.1 dBu step) Software adjustable
Dynamic Range:	125 dB (Typ), 122 dB (Min)
Distortion	less than 0.01% TDH+NOISE (0.0dBu 1Khz)
Input Modes:	Stereo, Mono (Left), Mono (Right), Mono (Left+Right)
Conversion dynamic range	124 dB (32 KHz)   126 dB (44,1 kHz)   126 dB (48 kHz) 122 dB (96 kHz)
Conversion resolution	24 bits
FM-Frequency range	2 Hz-15 kHz (+/- 0,025dB when processing is disabled)
DAB-Frequency range	2 Hz-20 kHz (+/- 0,025dB when processing is disabled)
MPX Input	
Connector	Unbalanced on 2 BNC – EMI Suppression
Input Impedance	50K
Adjustable Nominal Input Level (Sensitivity)	-6dB to +13,0dB (0.1 dBu step) Software adjustable
Max Input Level	+18,0dBu
A/D Conversion	Texas PCM4220
Analog Output	
Output Number	1-Stereo
Connectors:	2XLR, female - Electronically balanced – EMI Suppression
D/A Conversion	24bit Sigma-Delta Conversion (Crystal CS4272)
Output Level	-6.0dBu to +20.0dBu (0.1dBu Step)
Output Level Max.	+ 24,0 dBu
Impedance Source	10 $\Omega$
Load Impedance	600 $\Omega$ or greater
THD + Noise	Less than 0.01% (0.0dBu @ 1 kHz)
Signal to noise Ratio	>80 dB unweight - 100% Mod. 20 Hz–15 KHz

L/R CrossTalk	< -70 dB, 20 Hz-15 KHz
Pre-emphasis	OFF, 50usec, 75usec
FM-Frequency range	5 Hz-15 kHz (+/- 0,5dB when processing is disabled)
DAB-Frequency range	5 Hz-20 kHz (+/- 0,5dB when processing is disabled)
<b>Digital Output</b>	
Outputs Number	2 (1 <sup>st</sup> for audio, 2 <sup>nd</sup> for audio or Digital MPX)
Connectors	Balanced on XLR – EMI Suppression
Format	AES3/EBU
Output impedance	110 Ω
Sample rates	32 kHz / 44.1 kHz / 48 kHz / 96 kHz / 192 kHz Software selectable
Resolution	24 bit
Operative Nominal level:	From 0.0 dBFs to -30dBFs (0.1 dBu step)
Dynamic Range:	125 dB (Typ), 122 dB (Min)
Distortion	less than 0.01% TDH+NOISE (0.0dBu 1Khz)
Pre-emphasis	OFF, 50usec, 75usec
FM-Frequency range	2 Hz-15 kHz (+/- 0,025dB when processing is disabled)
DAB-Frequency range	2 Hz-20 kHz (+/- 0,025dB when processing is disabled)
<b>BACKUP PLAYER</b>	
Physical support	USB Flash Drive, microSD CARD (max 64GB)
Audio file format	MP3, WAV
Sample Rate	32   44,1   48   64   96 kHz
<b>Communication</b>	
Connection with Automation Software	Yes
Network Connectivity	4 TCP ports / 4 UDP / 1 SNMP
PSN Scheduler	Yes
Configuration Software	Web Server, FTP
Password Protection	Yes
REST Command	Yes
Alert notifications on user-defined events via SNMP traps or E-mails	Yes
Embedded SNMP agent permitting active management tasks	Yes
Supported Network Protocols	HTTP, SMTP, UDP, TCP, NTP, FTP



System	
Remote interface GPIn	6x GP In optocoupled
Remote interface GPOut	4x Relays – dry contact
Remote interface connector	DB 25 female connector - EMI suppressed
Remote interface GPIO Voltage and Current	DC 5V Source and Sink 10mA
Communication Port	2xRS232, 3xUSB, 1xLAN
Serial Interfaces	1 <sup>st</sup> RS232 on DB9 female connector - EMI suppressed 2 <sup>nd</sup> RS232 on DB25 female connector - EMI suppressed
Firmware can be upgraded in the field	Yes
Front-panel Colour TFT Display	Yes
Data may be entered on-site with Front-panel Buttons	Yes
Front Panel LEDs	40

## 5. WEEE DIRECTIVE – INFORMATIVA RAEE



In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.

In Übereinstimmung mit der Richtlinie 2002/96/EG des Europäischen Parlaments und des Rates über Elektro- und Elektronik-Altgeräte (WEEE) darf dieses Elektrogerät nicht im normalen Hausmüll oder dem Gelben Sack entsorgt werden. Wenn Sie dieses Produkt entsorgen möchten, bringen Sie es bitte zur Verkaufsstelle zurück oder zum Recycling-Sammelpunkt Ihrer Gemeinde.

Conformément à la Directive 2002/96/EC sur les déchets d'équipements électriques et électroniques (DEEE), ce produit électrique ne doit en aucun cas être mis au rebut sous forme de déchet municipal non trié. Veuillez vous débarrasser de ce produit en le renvoyant à son point de vente ou au point de ramassage local dans votre municipalité, à des fins de recyclage.

In navolging van richtlijn 2002/96/EG van het Europees Parlement en de Raad betreffende afgedankte elektrische en elektronische apparatuur (AEEA) mag dit elektrische product niet als ongescheiden huisvuil worden weggedaan. Breng dit product terug naar de plaats van aankoop of naar het gemeentelijke afvalinzamelingspunt voor recycling.

In ottemperanza alla Direttiva UE 2002/96/EC sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE), questo prodotto elettrico non deve essere smaltito come rifiuto municipale misto. Si prega di smaltire il prodotto riportandolo al punto vendita o al punto di raccolta municipale locale per un opportuno riciclaggio.

De conformidad con la Directiva 2002/96/CE de la UE sobre residuos de aparatos eléctricos y electrónicos (RAEE), este producto eléctrico no puede desecharse con el resto de residuos no clasificados. Deshágase de este producto devolviéndolo al punto de venta o a un punto de recogida municipal para su reciclaje.

I henhold til EU-direktiv 2002/96/EF om affald af elektrisk og elektronisk udstyr (WEEE) må dette udstyr ikke bortskaffes som usorteret husholdningsaffald. Bortskaf dette produkt ved at returnere det til salgsstedet eller til det lokale indsamlingssted, så det kan genbruges.

I linje med EU-direktiv 2002/96/EG om avfall som utgörs av eller innehåller elektriska eller elektroniska produkter (WEEE) får denna elektriska produkt inte bortskaffas som osorterat kommunalt avfall. Bortskaffa den i stället genom att lämna in den på försäljningsstället eller din lokala återvinningsstation.

EU:n sähkö- ja elektroniikkalaiteromudirektiivin (2002/96/EY) mukaisesti tätä elektroniikkalaitetta ei saa laittaa lajittelemattoman yhdyskuntajätteen sekaan. Hävitä laite palauttamalla se ostopaikkaan tai viemällä se elektroniikkaromun keräyspisteeseen.

De acordo com a Directiva Europeia 2002/96/EC sobre resíduos sólidos de equipamento eléctrico e electrónico (WEEE), este produto eléctrico não pode ser deixado fora juntamente com o lixo municipal indiferenciado. Por favor, no final da vida útil deste produto, devolva-o ao estabelecimento de aquisição, ou entregue no local de recolha apropriado para reciclagem designado pelo seu município.

V souladu se smrnici EU . 2002/96/ES o odpadních elektrických a elektronických zařizeniích (OEEZ) se tento elektrický výrobek nesmí likvidovat jako netříděný komunální odpad. Při likvidaci výrobek vraťte prodejci nebo ho odevzdejte k recyklaci do komunálního sběrného zařízení.

Vastavalt EL direktiivile 2002/96/EÜ, mis käsitleb elektri- ja elektroonikaseadmete jäätmeid (WEEE), ei või antud toodet visata majapidamisjäätmete hulka. Palun tagastage antud toode taaskasutamise eesmärgil müügipunkti või kohaliku piirkonna jäätmekogumise punkti.

V súlade so smernicou 2002/96/ES o odpade z elektrických a elektronických zariadení (OEEZ) sa toto elektrické zariadenie nesmie odstranovať ako netriedený komunálny odpad. Výrobok odstráňte jeho vrátením v mieste nákupu alebo odovzdaním v miestnom zbernom zariadení na recyklovanie.


V súlade so smernicou 2002/96/ES o odpade z elektrických a elektronických zariadení (OEEZ) sa toto elektrické zariadenie nesmie odstranovať ako netriedený komunálny odpad. Výrobok odstráňte jeho vrátením v mieste nákupu alebo odovzdaním v miestnom zbernom zariadení na recyklovanie.

## 6. WARRANTY


The manufacturer offers a one-year warranty ex-works. Do not open the equipment. Any breaking of the seals will result in forfeiture of the same. The manufacturer is not liable for damages of any kind arising from, or in connection with, the use of the wrong product.



## Dichiarazione di conformità

Il sottoscritto Giuseppe Vaccari	
In qualità di legale rappresentante della ditta Axel Technology S.r.l.	
con sede in: Via Caduti di Sabbiuno, 6/F – 40011 – Anzola Emilia (BO)	
Partita IVA: IT01735031203	
<b>Dichiara</b>	
che il prodotto: <b>Digital silence detector, failover audio switcher and converter; inputs: 1 analog, 2 digital AES/EBU, 2 IP, 2 MPX; outputs: 1 analog, 2 digital AES/EBU, 1 IP, 2 MPX. USB port, built-in media player as back-up source. GPI I/O. 1RU. Universal PSU. AGC, SNMP, WEB GUI.</b>	
Modello e/o codice: <b>FOX3-MPX</b>	
Data Fabbricazione: vedi etichetta sul prodotto	Numero di serie: vedi etichetta sul prodotto
È stato costruito rispettando le seguenti direttive e norme:	
<ul style="list-style-type: none"><li>• Direttiva 2014/35/UE nota come "Direttiva bassa tensione"</li><li>• Direttiva 2014/30/UE nota come "Direttiva compatibilità elettromagnetica"</li><li>• Direttiva 2011/65/CE nota come "RoHS"</li><li>• Direttiva delegata (UE) 2015/863 della commissione del 31 marzo 2015 recante modifica dell'allegato II della direttiva 2011/65/UE</li><li>• Direttiva 2012/19/UE nota come "RAEE"</li><li>• Direttiva 2001/95/CE nota "Sicurezza generale dei prodotti"</li><li>• UNI EN ISO 7010:2021 Titolo: Segni grafici - Colori e segnali di sicurezza - Segnali di sicurezza registrati</li><li>• EN 62368-1:2018 - relativa alla sicurezza elettrica per le apparecchiature informatiche e i prodotti audio/video</li><li>• IEC 62311:2019 - Valutazione degli apparecchi elettronici ed elettrici in relazione alle restrizioni per l'esposizione umana ai campi elettromagnetici (0 Hz – 300 GHz)</li><li>• EN 55032:2015+A1:2020 - Compatibilità elettromagnetica delle apparecchiature multimediali. Requisiti di emissione</li><li>• EN 55103-2:2010 Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 2: Immunità.</li><li>• EN 60065:2019 Apparecchi audio, video e apparecchi elettronici simili Requisiti di sicurezza.</li><li>• EN 61000-6-1:2016 – EMC – Immunità per ambienti residenziali, commerciali e industria leggera.</li><li>• EN 61000-6-3:2020 – EMC – Emissione per ambienti residenziali, commerciali e industria leggera.</li><li>• EN 60950-1:2014 – Sicurezza degli apparati ITE (Information Technology Equipment)</li><li>• EN 55024:2017 Apparecchiature per la tecnologia dell'informazione - Caratteristiche di immunità Limiti e metodi di misura.</li><li>• EN IEC 63000:2018 Nuovo standard armonizzato per dimostrare la conformità RoHS</li><li>• EN 55032:2015+A11:2020 Compatibilità elettromagnetica delle apparecchiature multimediali - Requisiti di emissione</li><li>• EN 55035:2017 - Compatibilità elettromagnetica delle apparecchiature multimediali - Requisiti di immunità</li></ul>	
Ed è quindi conforme alle direttive e normative vigenti.	
La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.	
Data: 15/6/2023	Firma: 
Luogo: ANZOLA DELL'EMILIA (BO) - ITALIA	

# CE Declaration of Conformity

The undersigned Giuseppe Vaccari	
As legal representative of the company Axel Technology Srl	
based in: Via Caduti di Sabbiuno, 6/F – 40011 – Anzola Emilia (BO)	
VAT number: IT01735031203	
<i>declares</i>	
that the product: <b>Digital silence detector, failover audio switcher and converter; inputs: 1 analog, 2 digital AES/EBU, 2 IP, 2 MPX; outputs: 1 analog, 2 digital AES/EBU, 1 IP, 2 MPX. USB port, built-in media player as backup source. GPI I/O. 1RU. Universal PSUs. AGC, SNMP, WEB GUI.</b>	
Model and/or code: <b>FOX3-MPX</b>	
Date of manufacture: see label on the product	Serial number: see label on the product
It was built in compliance with the following directives and standards:	
<ul style="list-style-type: none"> <li>• Directive 2014/35/EU known as the "Low Voltage Directive"</li> <li>• Directive 2014/30/EU known as the "Electromagnetic Compatibility Directive"</li> <li>• Directive 2011/65/EC known as "RoHS"</li> <li>• Commission Delegated Directive (EU) 2015/863 of 31 March 2015 amending Annex II of Directive 2011/65/EU</li> <li>• Directive 2012/19/EU known as "WEEE"</li> <li>• Directive 2001/95/EC known as "General product safety"</li> <li>• UNI EN ISO 7010:2021 Title: Graphic signs - Colors and safety signs - Registered safety signs</li> <li>• EN 62368-1:2018 - relating to electrical safety for computer equipment and audio/video products</li> <li>• IEC 62311:2019 - Evaluation of electronic and electrical equipment with regard to restrictions on human exposure to electromagnetic fields (0 Hz – 300 GHz)</li> <li>• EN 55032:2015+A1:2020 - Electromagnetic compatibility of multimedia equipment. Issue requirements</li> <li>• EN 55103-2:2010 Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 2: Immunity.</li> <li>• EN 60065:2019 Audio, video and similar electronic equipment Safety requirements.</li> <li>• EN 61000-6-1:2016 – EMC – Immunity for residential, commercial and light industry environments.</li> <li>• EN 61000-6-3:2020 – EMC – Emission for residential, commercial and light industry environments.</li> <li>• EN 60950-1:2014 – Safety of ITE (Information Technology Equipment)</li> <li>• EN 55024:2017 Information technology equipment - Immunity characteristics Limits and methods of measurement.</li> <li>• EN IEC 63000:2018 New harmonized standard to demonstrate RoHS compliance</li> <li>• EN 55032:2015+A11:2020 Electromagnetic compatibility of multimedia equipment - Emission requirements</li> <li>• EN 55035:2017 - Electromagnetic compatibility of multimedia equipment - Immunity requirements</li> </ul>	
And it is therefore compliant with current directives and regulations.	
This declaration of conformity is issued under the sole responsibility of the manufacturer.	
Date: 15/6/2023	Signature: 
Place: ANZOLA DELL'EMILIA (BO) - ITALY	