
Streamer Max MKII

Streamer Max Elite

User Manual

Audio Codec over IP-line MKII

(Rev. 4.1 ENG)



Table of Content

1 INTRODUCTION 4

1.1 APPLICATION AND PURPOSE 4

1.2 STREAMER MAX MKII – VERSION AVAILABLE 5

1.3 USE OF THIS MANUAL 5

1.4 STREAMER MAX – DEPLIANT AND BROCHURE 6

2 SAFETY WARNINGS / ISTRUZIONI PER LA SICUREZZA 9

2.1 FOREWORD 10

3 CONSIGNES DE SÉCURITÉ IMPORTANTES 13

4 ISTRUZIONI IMPORTANTI PER LA SICUREZZA 15

5 WICHTIGE SICHERHEITSHINWEISE 17

6 INSTRUCCIONES IMPORTANTES DE SEGURIDAD 19

7 UNPACKING AND INSPECTION 21

8 FIRST INSTALLATION RECOMMENDATIONS 22

8.1 POWER SUPPLY CABLE 22

8.2 AC MAINS VOLTAGE SETTING (230 V / 115 V) 23

8.3 PROTECTION AGAINST LIGHTNING 24

8.4 VENTILATION 25

9 STREAMER MAX – GENERAL DESCRIPTION 25

9.1 STREAMER MAX – FRONT PANEL 25

9.2 STREAMER MAX – REAR PANEL 26

10 BLOCK DIAGRAM OF STREAMER MAX 28

11 CONFIGURATION VIA WEB BROWSER 41

11.1 HOME PAGE: 43

11.1.1 NTP TIME AND DATE SYNCH IN WOLF 2MS 45

11.1.2 LOGIN INTO STREAMER MAX MKII AND ADMIN SETTINGS(ADMIN) 46

11.1.3 NETWORK SETTINGS(NETWORK) 53

11.1.4 ENCODER SETTINGS (ENCODER) 56

11.1.5 DECODER SETTINGS (DECODER) 59

11.1.6 AUDIO SETTINGS (AUDIO I/O) 61

11.1.7 SETUP 64

12 STREAMER MAX ELITE – CONFIGURATION FROM DEVICE PANEL 69

13 TECHNICAL APPENDIX 77

13.1 APPENDIX A - BALANCED AUDIO CONNECTION AND PINOUT 77

13.2 APPENDIX B - SERIAL CONNECTION E PINOUT 78

13.3 APPENDIX C - ETHERNET/LAN CONNECTIONS 79

13.4 APPENDIX D - USB A/B CONNECTION 80

13.5 APPENDIX E - GPIO PORT 81

14 TECHNICAL SPECIFICATION – STREAMER MAX 82

15 WEEE DIRECTIVE – INFORMATIVA RAEE 84

16 GUARANTEE 85

STREAMER MAX MKII - DECLARATION OF CONFORMITY 86

STREAMER MAX MKII ELITE - DECLARATION OF CONFORMITY 87

STREAMER MAX MKII – DICHIARAZIONE DI CONFORMITA’
STREAMER MAX MKII ELITE – DICHIARAZIONE DI CONFORMITA’

88
89

1 INTRODUCTION

1.1 APPLICATION AND PURPOSE

- **Studio-to-transmitter link (STL Connection):** Streamer MAX can be used for all kind of links between mobile and studio. Being easy to use and set avoids any setting problem and allows those non specialized to easily use it. Moreover a lot of Radio Station is turning into Audio-Over-IP as StudioTransmitter Link from the Main audio Studio directly to the Transmitting Site. A different purpose for Streamer MAX is the permanent link between Outcast News Room or OB Studios and the Master Control Room. Today fast internet connection are available almost everywhere, so if a Radio Broadcaster need to offer a good audio quality, and not the telephone quality, could use this Equipment. Axel Technology White Paper Networked Audio-Over-IP solution 6 3
- **Public Address:** The new Streamer MAX are designed also to distribute audio easily in a complex system. It can be used in several applications to broadcast audio files like background music at the same time to the specific messages, like live announcements, in areas previously identified
- **Background Music:** It's a perfect solution for Malls, Hotels, Shopping Centres and other surfaces with many different sound zones. The integrated web server allows you to check in remote mode the parameters of each single Streamer MAX box.
- **Voice evacuation:** emergency situation In locations where crowds gather such as a stadium, an efficient sound distribution is required especially in case of emergency. Playback to the complete circuit the standard "Alarm Tones" or general code of behaviour in case of emergency. Using the right Streamer MAX box it is possible to lead people to the nearest exit.
- **Advertising Network Split Areas:** In large companies with locations and branches at different remote sites (like Market Chains) MAX series distribute your sound and your advertising message troughout the chain. It is also possible to split Advertising areas to generate different market areas.
- **Zoned sound reinforcement:** MAX Series is a very flexible sound distribution system and can help to create the right atmosphere in your selected zone. For example in a museum you may also enable a single Streamer MAX to explain a particular picture.
- **Control operation:** MAX Series can be used also where special security features are required (for example in a tunnel). You can create several priority levels to be used according to fire brigade, ambulance and police procedures. Axel Technology White Paper Networked Audio-Over-IP solution 7

• **Rail, Metro Station, Ships:** MAX series allows to creation of an audio distribution system using only one CAT5 cable. In a ship you can distribute the sound in each location (hall, restaurant, control bridge, cabins) with the option to make an announcement only in certain predefined areas in independent mode.

1.2 STREAMER MAX MKII – VERSION AVAILABLE

CODE#	MODEL	COMMERCIAL DESCRIPTION
A116010000	STREAMER MAX MKII	Bidirectional Encoder/Decoder for streaming audio over IP. Analog and AES/EBU I/O. Formats: PCM, MP3, AAC, AAC+, Vorbis, Shoutcast, Icecast. Distributes audio over standard TCP/IP,LAN,WAN and UMTS networks with external modem. GPIO. Audio backup on USB-HD. Unicast/Multicast
A116010001	STREAMER MAX ELITE MKII	Bidirectional Encoder/Decoder for streaming audio over IP. Graphic display and encoder. Analog and AES/EBU I/O. Formats: PCM, MP3, AAC, AAC+, Vorbis, Shoutcast, Icecast. Streams audio over standard TCP/IP,LAN,WAN and UMTS networks with external modem. GPIO. Audio backup on USB-HD. Unicast/Multicast

1.3 USE OF THIS MANUAL

This manual is for the Streamer MAX MKII and Streamer Max MKII Elite. Certain features may be altered without prior notice.



1.4 STREAMER MAX – DEPLIANT AND BROCHURE

STREAMER MAX

AUDIO OVER IP ENCODER / DECODER



- Half-Duplex and Full-Duplex audio connection
- Professional Hi-Quality analogue and Digital In/Out with A/D and D/A conversion
- Optional connection via Bluetooth, WIFI, UMTS Modem (*)
- Data tunnelling with certified USB interfaces (like RS232-RS485) to control remote devices
- 2 GPIn and 2 GPout with data tunneling operative mode
- Web based configuration
- Multiple audio codec protocols and bitrates
- Highly accurate rate and Jitter correction in every digital audio paths
- Microphone XLR input

(*) Optional, only certified devices



STREAMER MAX

STREAMER MAX is an hardware device for audio signals coding/encoding over IP (bidirectional/full duplex). It is compatible with most of worldwide standards and it has an architecture open to support future formats and customizations. It combines application versatility (Studio, STL, Portable) with easiness of use.



OVERVIEW:

STREAMER MAX is an hardware device for audio signals encoding / decoding over IP (bidirectional/full duplex).

It is compatible with most of worldwide standards and its architecture is open to support future formats and customizations.

It combines application versatility (Studio, STL, Portable) with ease of use.

STREAMER MAX has both analogue and digital inputs / outputs in order to allow maximum flexibility of installation and connectivity. Specifically designed for broadcast applications, STREAMER MAX is a high quality and high performance device with professional features such as data tunneling for RS-232 serial port and GPIO management.

STREAMER MAX is also suitable for consumer applications, from audio stream in point-to-point environments to audio distribution for public addressing.

The duty aluminum body, the battery box and the universal power supply allow installation in any kind of environment in any conditions.

MAIN FEATURES:

- Mono and dual communication (Full-Duplex)
- Unicast point-to-point and multicast configuration
- Integrated Shoutcast Source Feed
- Audio Changeover/backup: switch to backup audio source
- Protocols : Linear PCM, OGG/Vorbis, MP2 (*option), MP3 (*option), AAC (*option), AAC+ (*option)
- Integrated Web Server for wire set up (LAN/Internet, UMTS)
- Professional Audio Quality Analogic and Digital Audio Interfaces

APPLICATIONS:

- Audio over-IP distribution
- Point-to-point links (STL)
- Multicast connections
- Radio InStore/Brand Audio Networking
- Audio distribution for PA

STREAMER MAX TECHNICAL SPECIFICATIONS

MAIN FEATURES

Transport protocols:	UDP raw, UDP/IP, TCP/IP, HTTP, RTP
Sampling Rate:	32 kHz/44.1kHz/48 kHz (Full-Duplex Mode 48kHz only)
Transmission/Reception protocol and available bitrates:	
Linear WAV:	16 Bits PCM linear
OGG VORBIS:	Bitrate in kbit/sec (64, 80, 96, 112, 128, 160, 192) - CBR Quality: 0(Best), 1, 2, 3, 4, 5(Default), 6, 7, 8, 9(Worst) -VBR
MPEG1-L3 (MP3) (*Optional)	Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192) - CBR Mode: Stereo, Joint Stereo, Dual Channel, Mono, Auto
MPEG1-L2 (MP2) (*Optional)	Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192) - CBR Mode: Stereo, Joint Stereo, Dual Channel, Mono, Auto
AAC (*Optional)	Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192) - CBR
HEAAC, HEAACv2 (*Optional)	Bitrate in kbit/sec (24, 32, 40, 48, 56, 64) - CBR

I/O INTERFACES

1x Universal power supply 100-240 Vac
1x Slot SD Card o SDHC
1x RJ45 full duplex IEEE 802.3 10/100Mb/s, WiFi*, 3G*
2x USB 2.0 FullSpeed
2x GPInputs via Optocoupler
2x GPOut via Optocoupled open collector output
2x XLR Input: Analog o Digital (AesEbu)
2x XLR Output: Analog o Digital (AesEbu)
1x Graphic Display LCD (Elite Version Only)
1x Encoder with Enter button (Elite Version Only)
1x Headphone jack Output (Elite Version Only)
1x front USB 2.0 FullSpeed (Elite Version Only)

AUDIO FEATURES

Analog input impedance:	10KOhm
Analog input sensibility:	-12.0dBu to +12.0dBu
Analog max input/output:	+20dBu
Digital input impedance:	110Ω
Digital Input Rates:	32-96 kHz with sample rate conversion and jitter correction
Bandwidth:	20Hz - 24kHz (Analogic Sampling Rate 48Khz)
Signal-to-noise (S/N):	110 dB A-weighted (90dB nominal @ 0.0dBu sensitivity)
CrossTalk:	>80 dB @ 10kHz
THD:	0.005% @ 1kHz
Input Digital Sensitivity:	-30.0 dBFS, -5dBFS
Digital Output Rates:	48kHz Internal or 32-48kHz Synch to AesEbu input
Digital nominal input:	0.0 dBFS - -25.0 dBFS
Dimensions:	217x200x44 mm (b x w x h)
Weight:	2 Kg (3 Kg with batteries)

ORDERING INFO

Code:	Product:	Description:
A116010000	STREAMER MAX MKII	Bidirectional Encoder/Decoder for streaming audio over IP. Analog and AES/EBU I/O. Formats: PCM, MP3, AAC, AAC+, Vorbis, Shoutcast, Icecast. Distributes audio over standard TCP/IP/LAN/WAN and UMTS networks with external modem. GPIO. Audio backup on USB-HD. Unicast/Multicast
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Pictures and technical specs in this leaflet are provided for information purpose only and are subject to change without further notification (Ver. 2.0)

AXEL TECHNOLOGY S.r.l. - Via Caduti di Sabbiuno, 6/F - Anzola Emilia - 40011 - Bologna - Italy
 Tel. +39 051 736555 - Fax +39 051 736170 - email: info@axeltechnology.com - web: www.axeltechnology.com

2 SAFETY WARNINGS / ISTRUZIONI PER LA SICUREZZA

SAFETY WARNINGS

CONSIGNES DE SÉCURITÉ IMPORTANTES

ISTRUZIONI IMPORTANTI PER LA SICUREZZA

WICHTIGE SICHERHEITSHINWEISE

INSTRUCCIONES IMPORTANTES DE SEGURIDAD

(Rel. 2.0)

2.1 FOREWORD

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



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 mis-operation 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 a number of 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 nor 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 of time, 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 integrity.



This symbol alerts you to the presence of dangerous voltage inside the closure – voltage which 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 mains fuse without first turning the unit off and unplugging the mains cord



Make sure the AC main voltage corresponds to that indicated in the technical specifications.
THIS APPARATUS MUST BE EARTHED !



To avoid 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 mains switch and does therefore not separate the unit completely from the mains power. To completely separate from mains power (in the event of danger) unplug mains power cord. As the MAINS plug is the disconnect device, the disconnect device shall remain readily operable.

3 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 replacer 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

4 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 sgocciolamenti 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

5 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

6 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 exponga** 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

7 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 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.

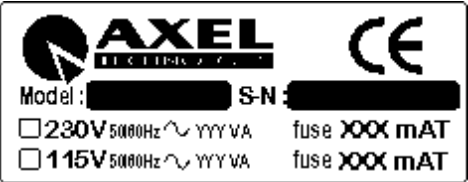
Under normal conditions no user maintenance or calibration are required. Internal links and preset controls may be set to configure the unit during installation. **Any service work required should be carried out by qualified service personnel only.**

We are able to 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 technician's tools are required to install this equipment.

8 FIRST INSTALLATION RECOMMENDATIONS

8.1 POWER SUPPLY CABLE

A power supply cable of approx. 2 mt length is supplied with the device, which has a moulded 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:


Earth	Green, or green and yellow
Neutral (N)	Blue
Live (L)	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.

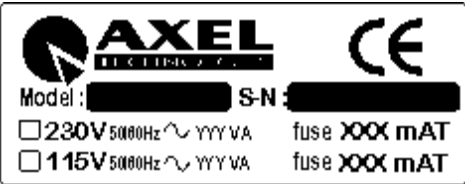
THIS EQUIPMENT MUST BE EARTHED.

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


8.2 AC MAINS VOLTAGE SETTING (230 V / 115 V)

 **BE SURE THAT THE UNIT IS SET TO THE CORRECT MAINS/LINE VOLTAGE FOR YOUR COUNTRY BEFORE PLUGGING IT INTO THE WALL OUTLET !**

The actual Mains voltage is indicated on the label stuck on the equipment closure. Should the type of power at the operation location not be known, please contact your dealer or electricity company.



If, for some reason, the unit is to be operated at a mains input voltage which is different to that as supplied, you need to switch the voltage selector on the right side of the unit. You also need to replace the AC main fuse, according to information provided on the external label or on the Technical Specifications table at the end of this user manual.

 **CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, ALWAYS DISCONNECT THE AC MAINS CABLE BEFORE ALTERING THE CHANGE-OVER SWITCH. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

8.3 PROTECTION AGAINST LIGHTNING

When the upper iron cover is removed, a plastic transparent cover helps the user safety, to avoid from flashlight coming from the switching power supply. After the power cord has been disconnected some parts of the power supply remain electrically loaded for a lot of time.

Axel Technology suggest to don't touch never this parts, and it is not responsible for human flash light or electrical burns.



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.

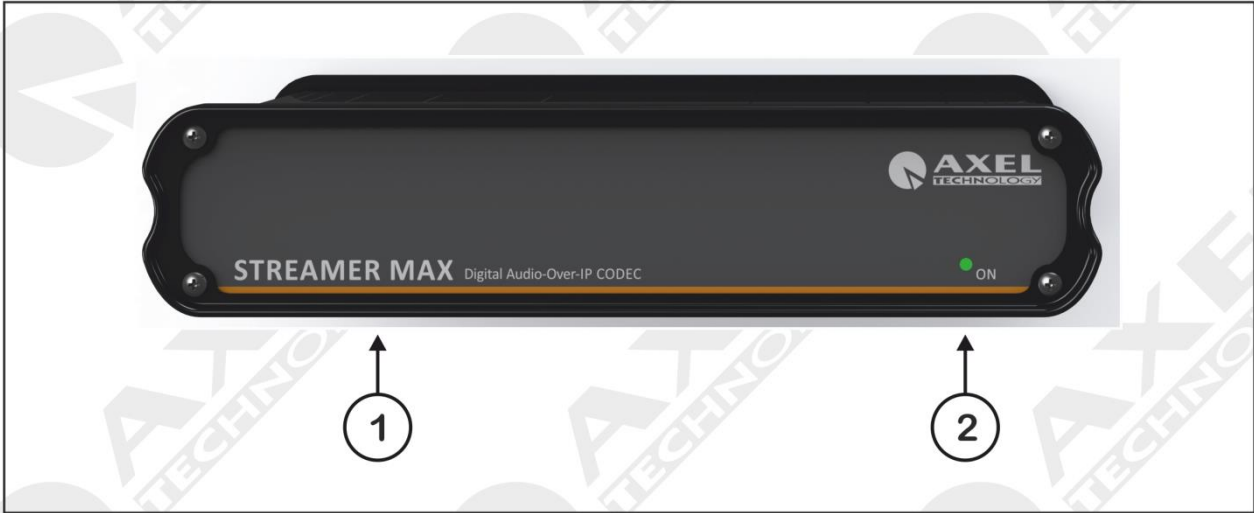
Make sure there is suitable lightning protection to protect the device.
Alternatively you should disconnect all connectors from the device during a storm or when the device is going to be unsupervised or not used for a longer period of time.
These measures will protect against damage by lightning or excess voltage.

8.4 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 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.

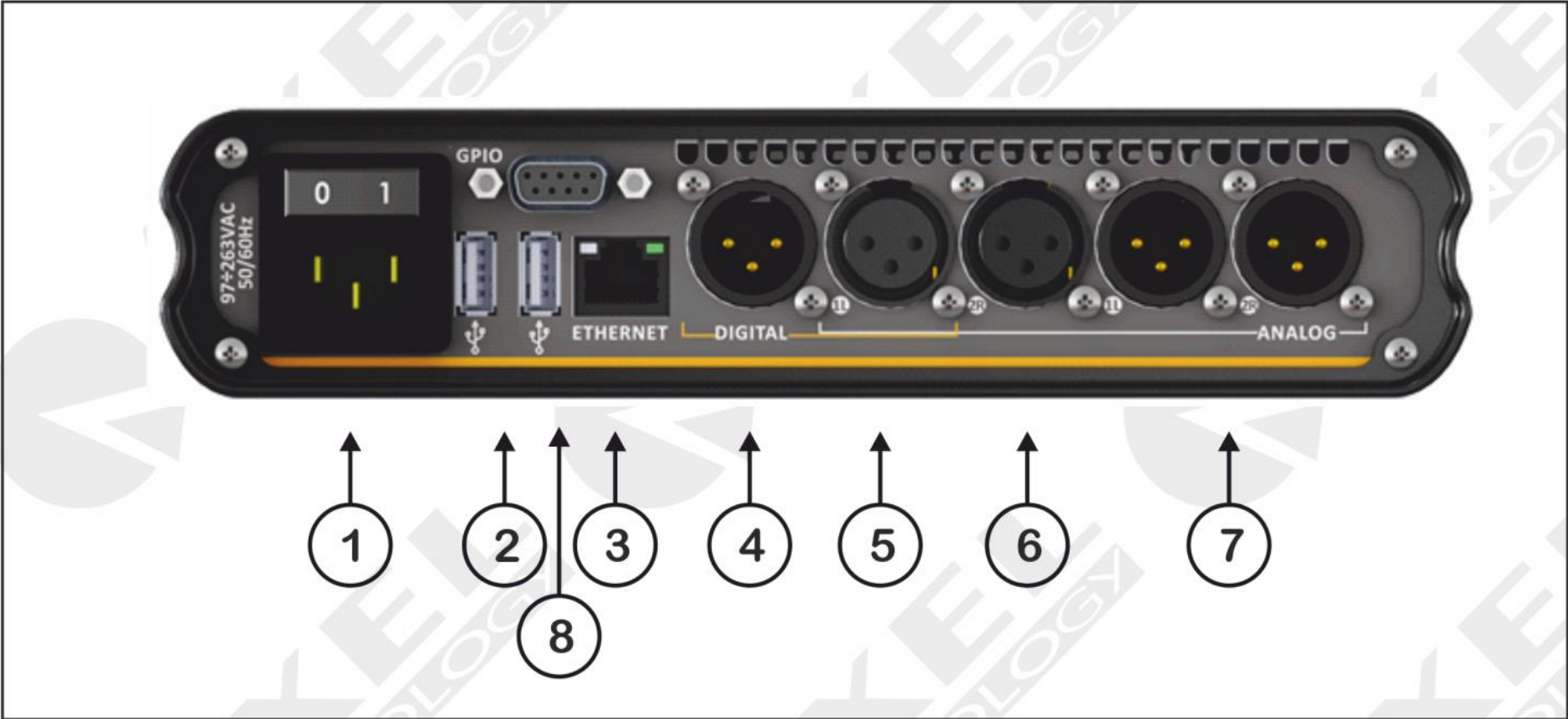
9 STREAMER MAX – GENERAL DESCRIPTION

9.1 STREAMER MAX – FRONT PANEL



N°	CONTROL NAME	FUNCTION
1	DEVICE NAMEPLATE	Plate stating product name and description.
2	ON LED	With this led lighted up, the streamer max is working.

9.2 STREAMER MAX – REAR PANEL

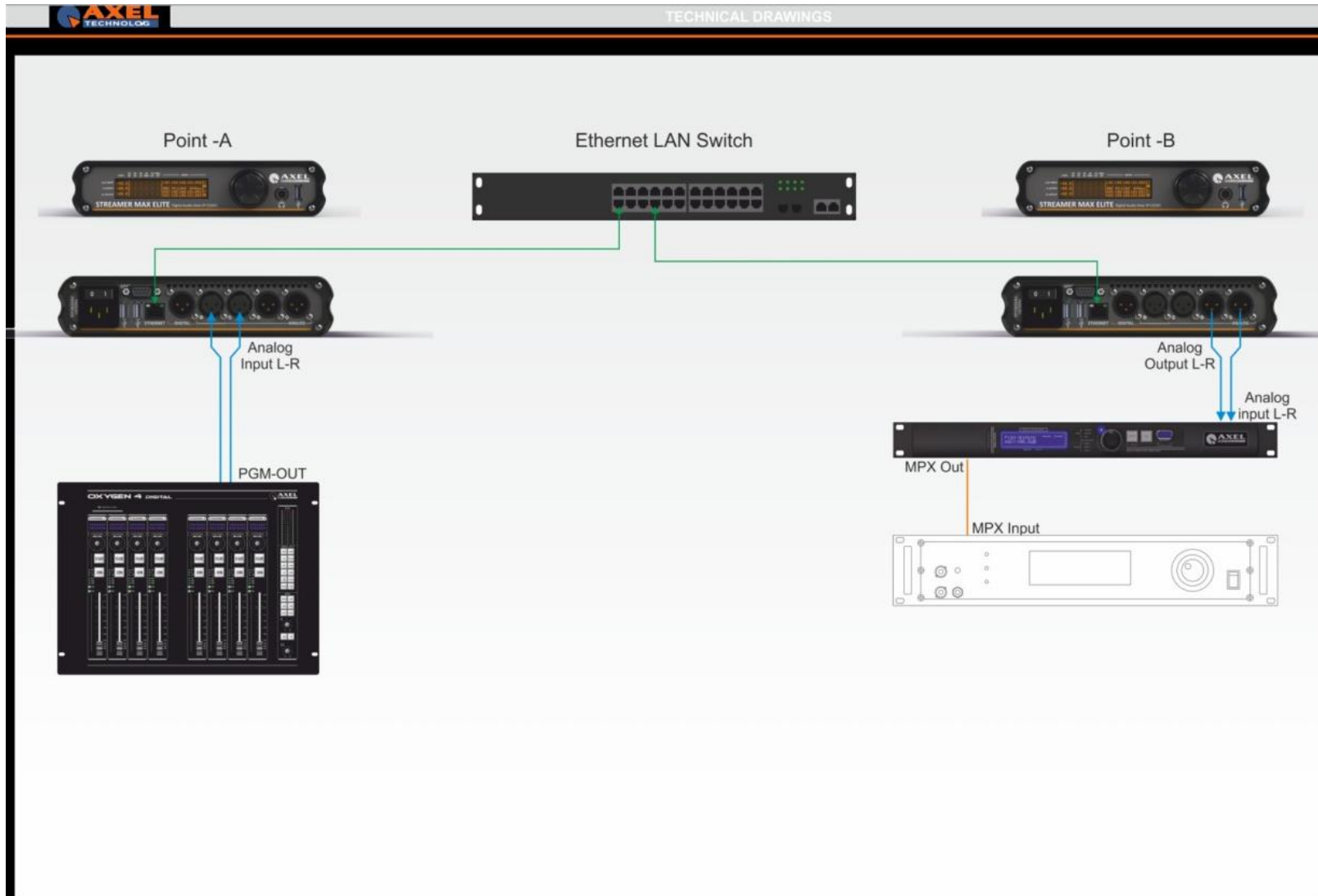


N°	CONTROL NAME	FUNCTION
1	POWER SUPPLY UNIT	The power supply unit features a switch to switch on the device and a power socket. For the change of the fuse, see the relevant chapter. The fuse is located inside the device, near the switching power supply unit. <u>The fuse is of the slow blow type, 230 V a.c. and 2,000 A, equal to 2000 mA</u>
2	“USB” PORT	USB -A type data communication port. This port is used to connect devices as Serial – USB converter, or certified USB UMTS modem sim card base.
3	ETHERNET PORT	Streamer MAX is fitted with an Rj45 Ethernet port for LAN/WAN-type connections, to monitor and control the device. This port also provides an integrated web server, so the Streamer MAX can be controlled remotely using a standard web browser. The same port also features an SNMP agent, and an ASCII Parser (see <i>Appendix</i>).
4	“DIGITAL” UNIT	This section contains the connections for AES / EBU digital outputs. Electronically balanced
5	“DIGITAL/ANALOG” UNIT	This female connector allows two function. When the analog output it's selected, this connector is the Left input for Analog in. When Digital it's selected this connector it's the Digital Audio Input on AES/EBU format.
6	“ANALOG” INPUT	Analog Right input over XLR balanced connector
7	“ANALOG” OUTPUT	ANALOG audio output of the Streamer MAX. Electronically balanced output on XLR connector (type: stereo / mono)
8	“GPIO” PORT	<p>9pin female interface on SubD connector. This shows the logic status of the Streamer MAX. The GP outputs are Open Collector outputs, while the GP inputs are optocouplers.</p> <p>For information on the GPIO Interface port <i>pinout</i>, see the Appendix at the end of this manual. For the operation of each GPI and GPO, see the specific section in the next pages of this manual.</p>

10 BLOCK DIAGRAM OF STREAMER MAX

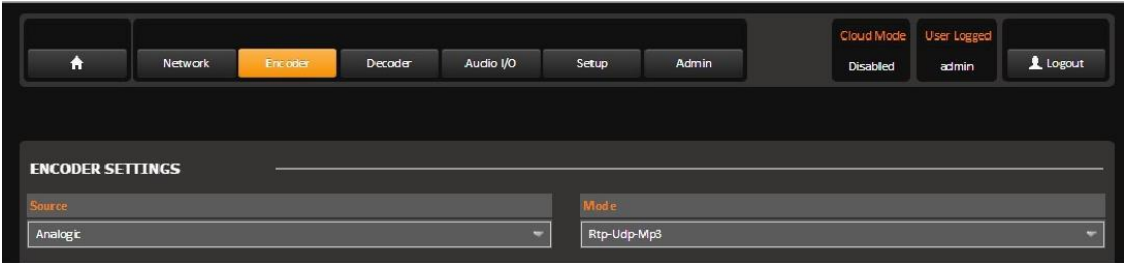
1. Scenario 1: Point-to-point connection using RTP-UDP
2. Scenario 2: Point-to-point connection using RTP-UDP with Internet
3. Scenario 3: Point-to-point connection using IceCast2 Source with Internet
4. Scenario 4: Multiple connection using IceCast2 Server with Internet

Scenario 1: Point-to-point connection using RTP-UDP



Scenario 1: Point-to-point connection using RTP-UDP

This is the simplest and fastest way to connect a couple of Streamer Max MKII to create a link between point-A to Point-B using a RTP protocol in UDP and MP3 as audio encoder.



In Point-A as encoder:
In the ENCODER SETTINGS select as
Source: Analogic and
Mode: RTP-UDP-MP3 as per picture



In section MP3 select the
Preferred Rate: 128kBits
Sample Rate: 44.1kHz
Mode: Stereo



And in UDP section set the
Port: 5002 that is the default port existing
Host: this is the IP of Streamer Max MKII in Point-B (eg:
192.168.99.253)

This scenario has been created to connect Point-A to Point-B using a LAN environment, and once Streamer Max MKII has been connected this is the screen that appears.

Streamer MAX MKII AXEL TECHNOLOGY

Home
Network
Encoder
Decoder
Audio I/O
Setup
Admin
Cloud Mode: Disabled
User Logged: Guest
Login

GENERAL INFORMATION

Name	Date	GPI	GPO	Network Selected	Rel. Firmware	Rel. WebApp
Streamer Max	16/03/15	1	2	LAN	0.9.6	0.9.6

Location	Time	Status	IP Address	Subnet Mask	Default Gateway
-----	14:48:46	Enabled	010.000.021.051	255.255.255.000	010.000.021.001

ENCODER STATUS CONNECTED

Left

Right

Audio Input	Gain	RMS-L	RMS-R	Peak-L	Peak-R
Digital	0.0 dB	-9.5 dBfs	-10.1 dBfs	-2.5 dBfs	-2.8 dBfs

Status	Protocol	Encoder	Bit Rate	Mode	Freq.
Connected	Rtp-Udp	MP3	48 kbps	Stereo	22 (A) kHz

Encoder Stream Info

To Host: 10.0.20.51 - Port: 5002

DECODER STATUS CONNECTED

Left

Right

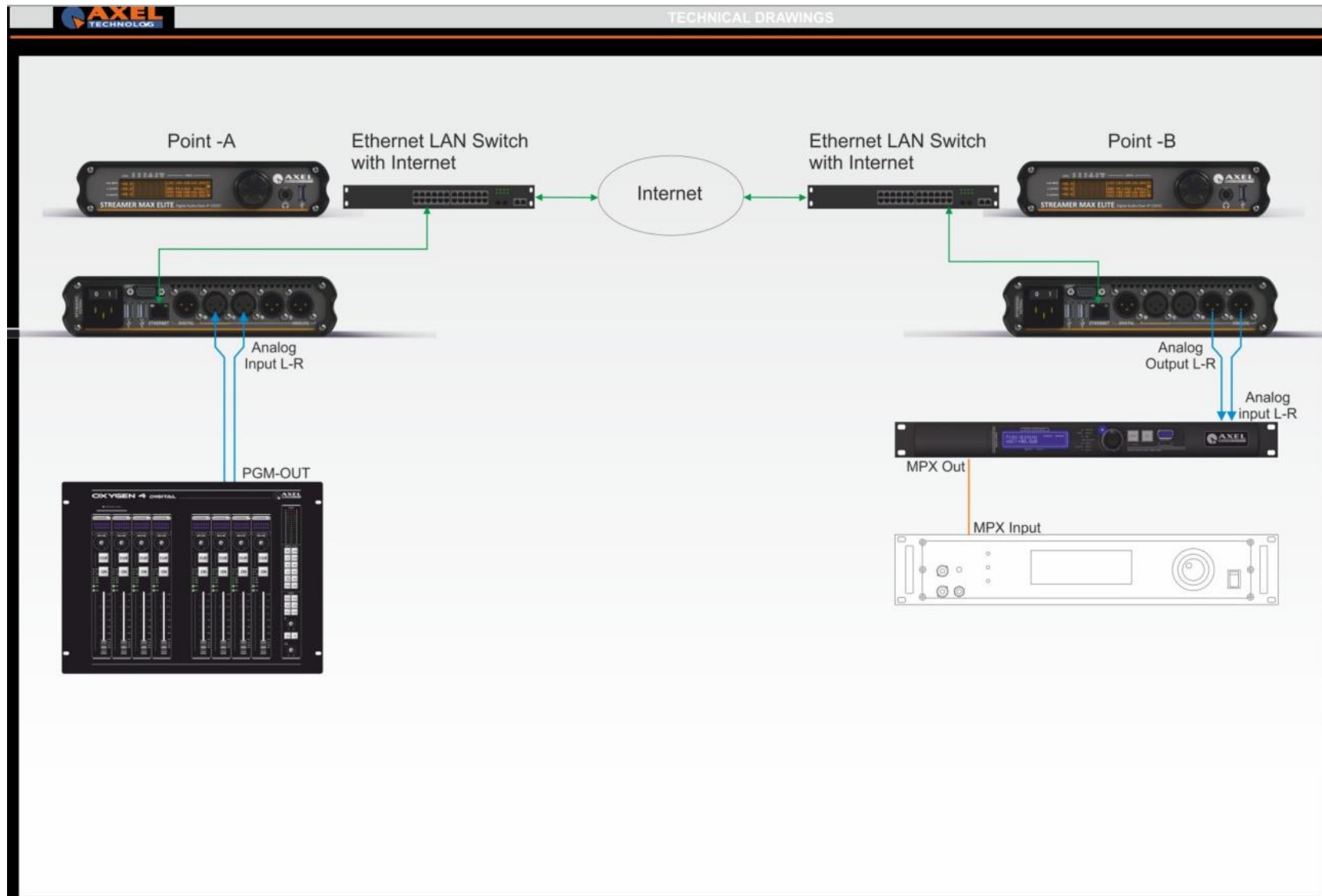
Dig Out Gain	An Out Gain	RMS-L	RMS-R	Peak-L	Peak-R
0.0 dB	-3.0 dB	-8.3 dBfs	-9.3 dBfs	-1.6 dBfs	-2.4 dBfs

Status	Protocol	Encoder	Bit Rate	Mode	Freq.
Connected	Rtp-Udp	MP3	48 kbps	Stereo	22 kHz

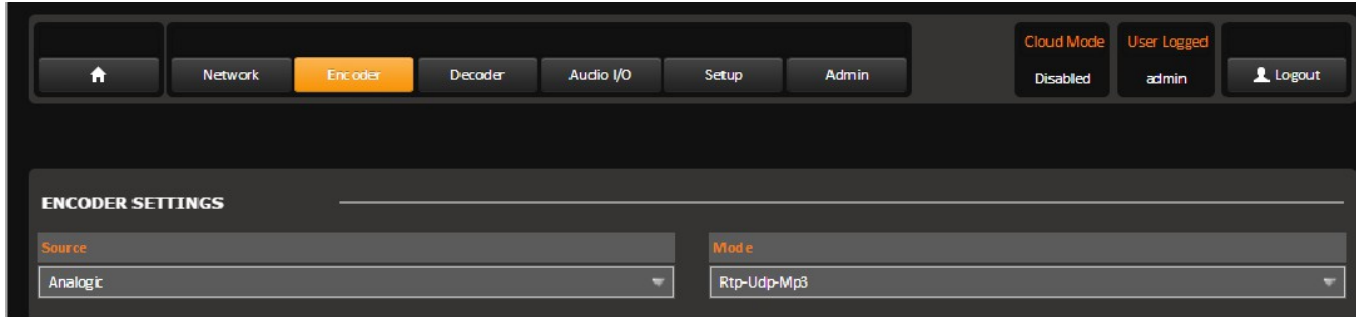
Decoder Stream Info

From 10.0.20.51:60668 to Port: 5002

Scenario 2: Point-to-point connection using RTP-UDP with Internet



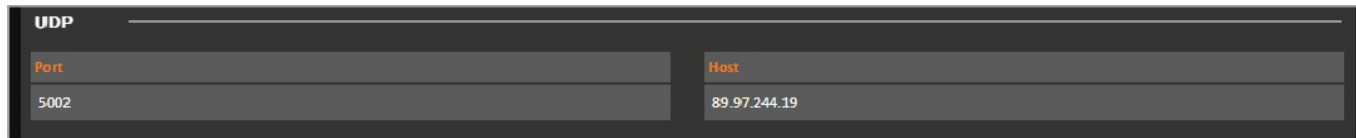
Scenario 2: Point-to-point connection using RTP-UDP with Internet



In the ENCODER SETTINGS select as Source: Analogic and Mode: RTP-UDP-MP3 as per picture



In Section MP3 select the Preferred Rate: 128 kBits and Sample Rate: 4 Mode: Stereo



And in UDP section set the Port: 5002 that is the default port existing

Host: in this case must be placed the PUBLIC IP and PORT used by the Streamer Max MKII in decoder side

Example
Encoder

UDP PORT : 5002

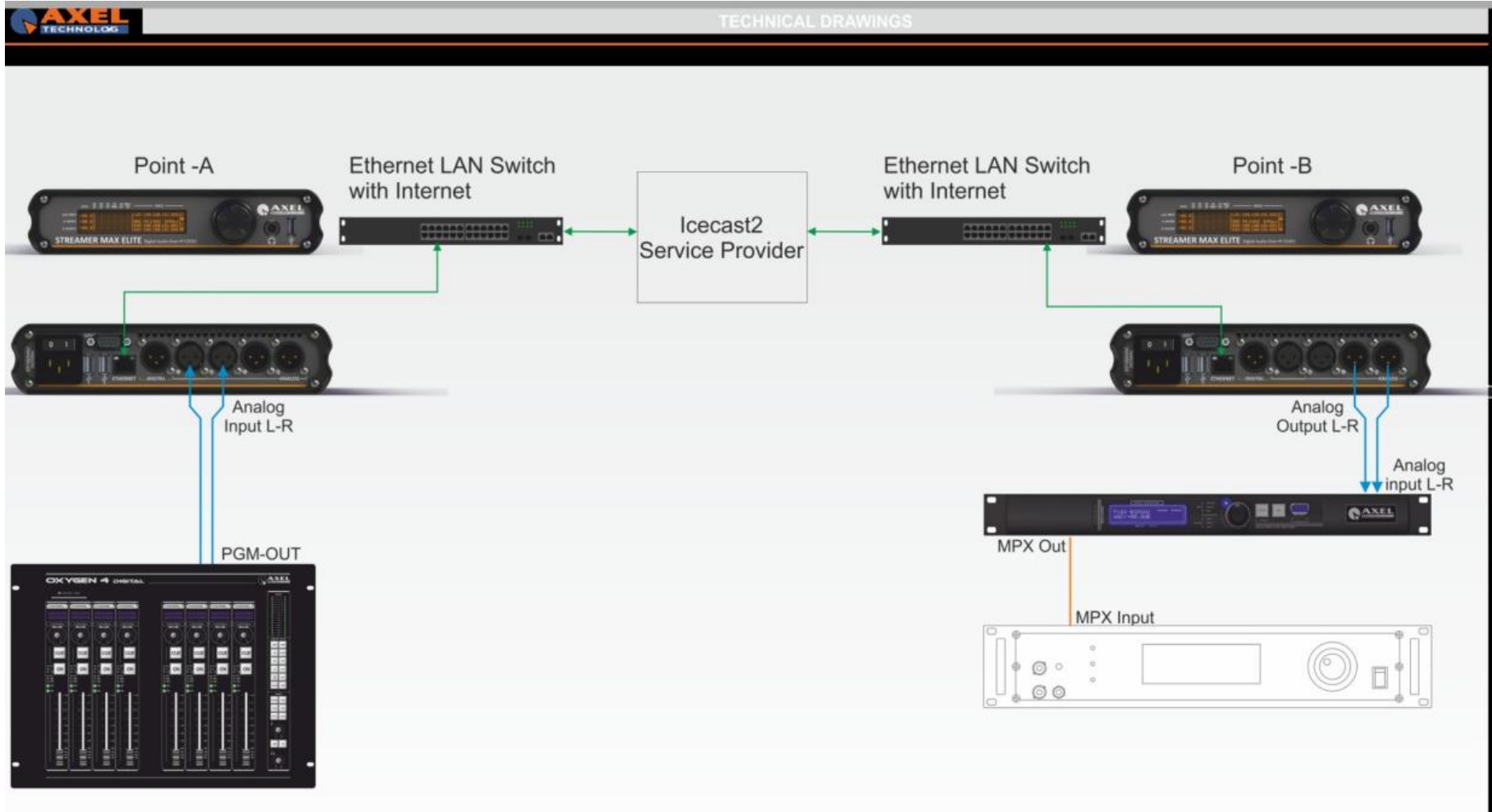
HOST : PUBLIC IP destination (eg: 89.97.244.19)

In the Point-B must be created a rules on the Firewall or the Router that “route” all UDP packets received to the PUBLIC IP : PORT -> forwarded to the Streamer Max MKII LOCAL IP : PORT

The IP of the Streamer Max MKII in Point-B can be set In NETWORK Section (see overall section)

In case of issues, please contact your IT Manager to configure Router-Firewall-LAN

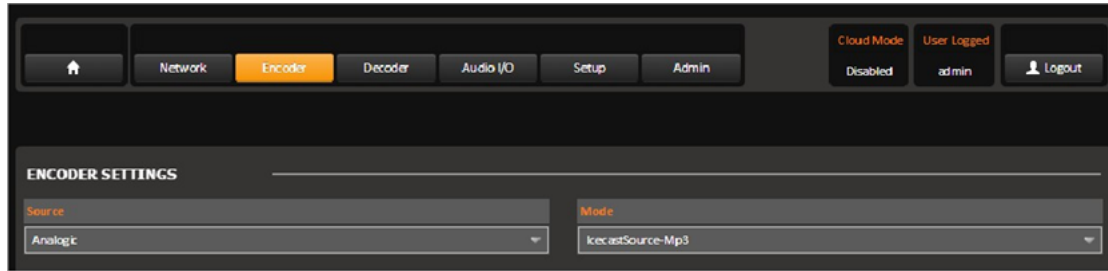
Scenario 3: Point-to-point connection using Icecast2 server



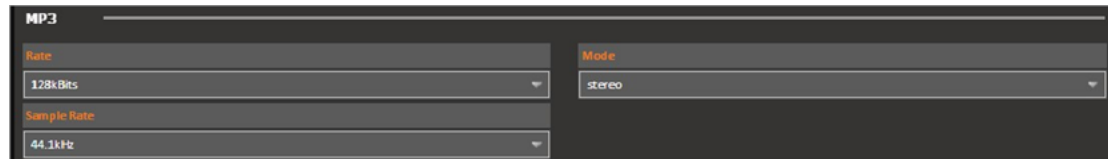
Scenario 3: Point-to-point connection using IceCast2 Source

This is the Typical scenario when a Radio Station needs to feed an external IceCast2 Service Provider and deliver the audio for webcast. In this case no PUBLIC IP are needed, no PUBLIC IP in Point-A nor in Point-B.

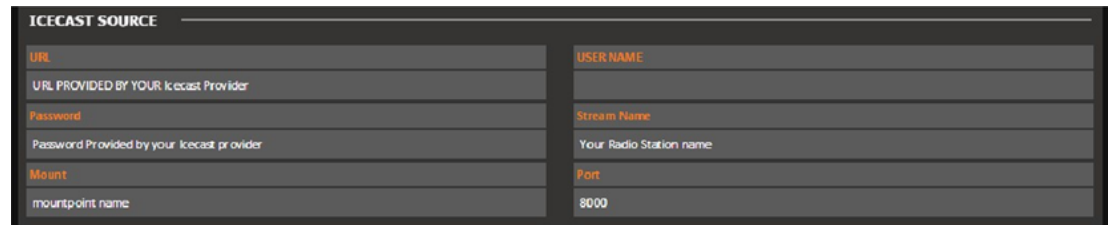
The audio is delivered to a IceCast2 Server that will manage all the incoming request, and due to a very large amount of bandwidth required, this is the preferred solution for internet radio broadcasting.



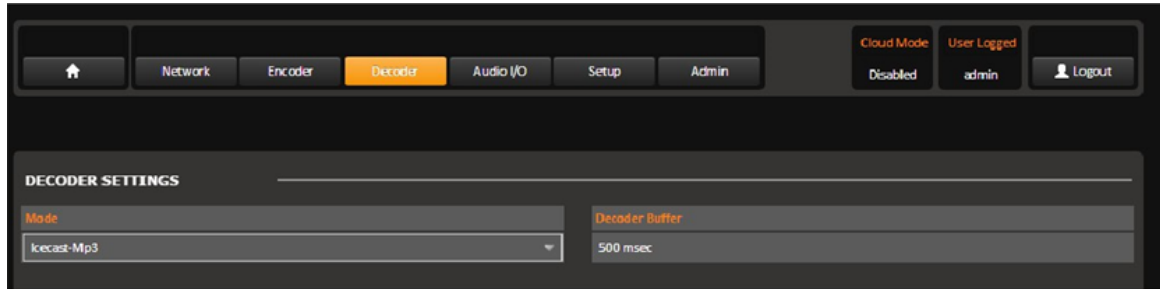
In the ENCODER SETTINGS (Point-A) select as Source: Analogic
Mode: IcecastSource-MP3



In Section MP3 select the preferred Rate: 128kBits and
Sample Rate: 44.1kHz
Mode: Stereo



And in Icecast Source set as showed here.
The URL, USER NAME And Password are provided by your IceCast2 Service Provider. Mount is the name of the streaming, should be "Stream1" or other name
PORT: generally speaking IceCast2 port is 8000 but should be changed according to IceCast2 Service Provider



In the DECODER SETTINGS (Point-B) select as in the picture

And in ICECAST section set as URL the URL provided by your IceCast2 Service Provider and compose the string with this syntax: <http://URL:PORT/Mount>

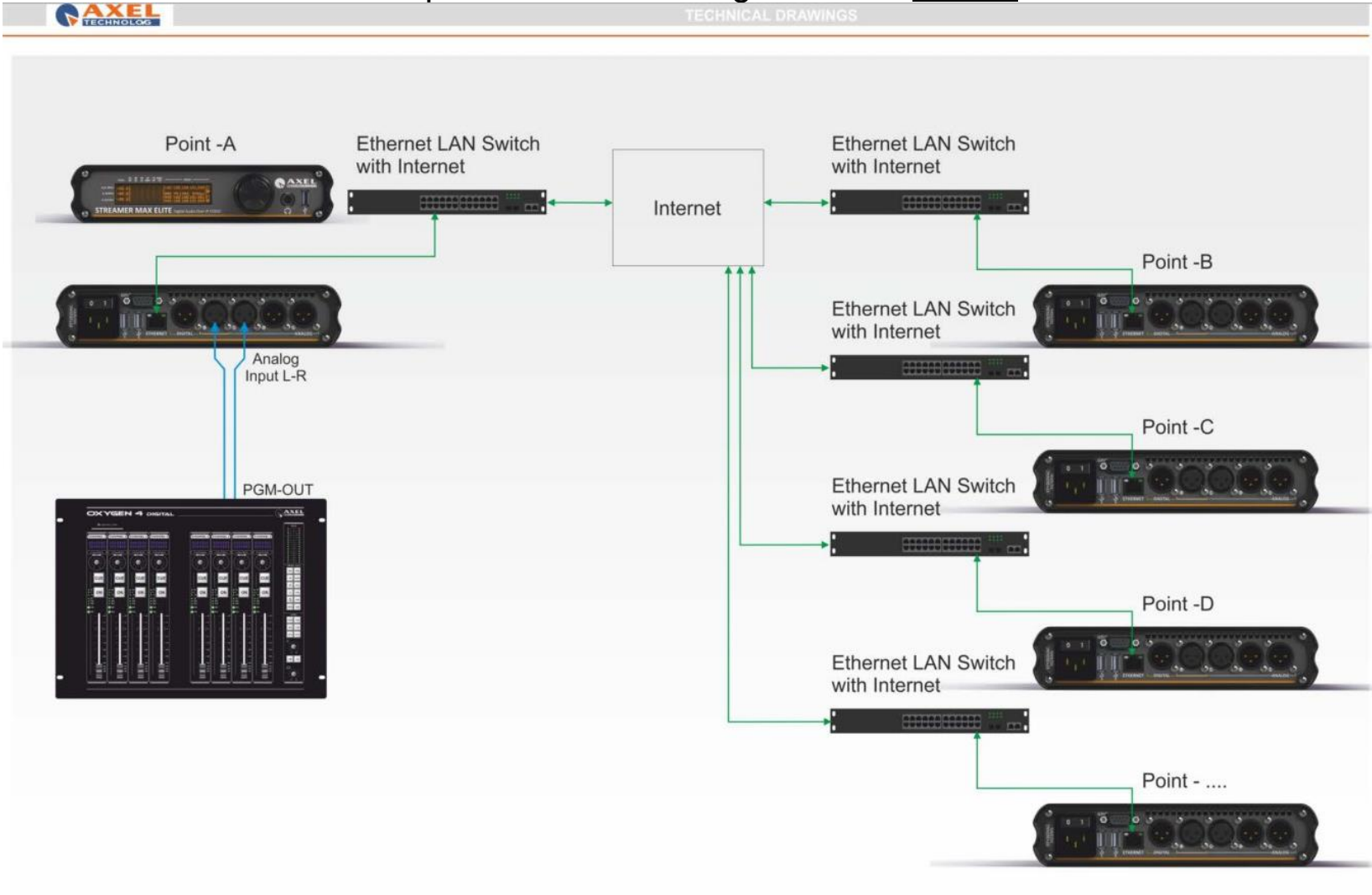


in this example

<http://www.rds.it:8000/stream>

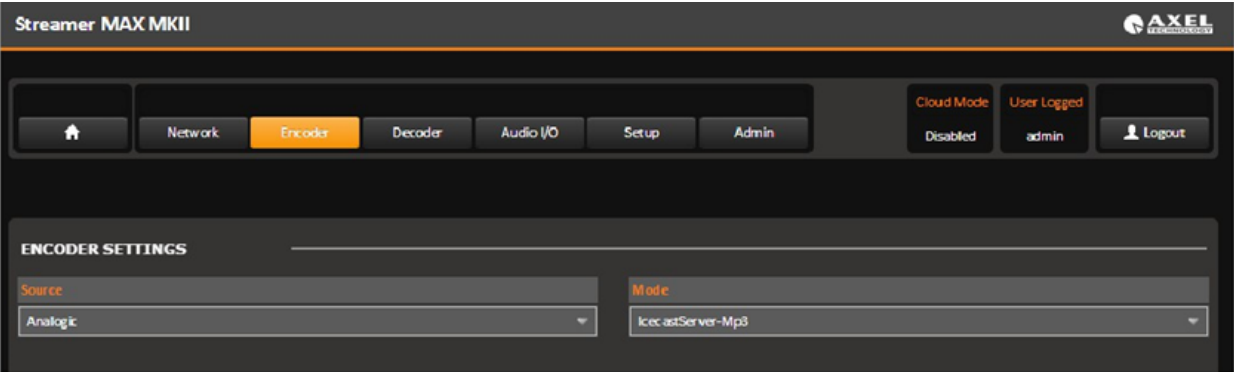
No other settings are required to configure Streamer MAX MKII as decoder from a IceCast2 Server.

Scenario 4: Multiple connection using IceCast2 Server with Internet

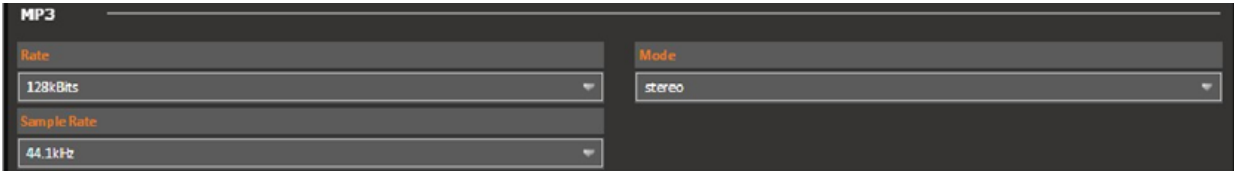


Scenario 4: Multiple connection using IceCast2 Server with Internet

Streamer Max MKII allows to be at the same time an IceCast2 Source and IceCast2 Server. So, just in case the user own enough internet bandwidth and a Public IP it is possible to connected up to 20 Streamer Max MKII in Decoding from a single Streamer Max MKII encoder source.



In the ENCODER SETTINGS (Point-A) select as
Source: Analogic
Mode: IcecastServer-MP3

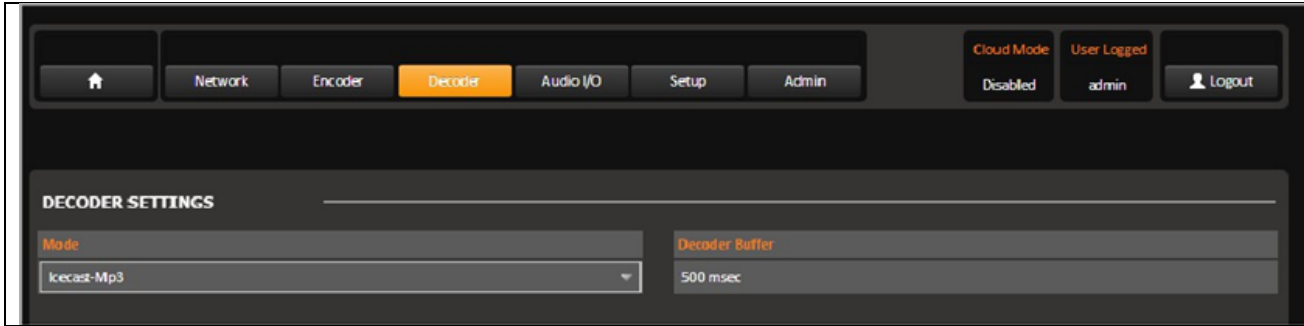


In Section MP3 select the preferred
Rate:128kBits and
Sample Rate: 44.1kHz
Mode: Stereo



And in IceCast2 Server set as showed here.
USER NAME no needed
Password as preferred (eg: test)
Mount is the name of the streaming, should be "Stream1" or other name

In this condition it is necessary to create by the IT department a rules in Firewall/Router that redirect all TCP/IP packet from the PUBLIC IP to the Local IP.



In the DECODER SETTINGS (Point-B and Point-C and Point-D....Point-N select as shown in the picture

And in ICECAST section set as URL the url provided by your Icast2 Service Provider and compose the string with this syntax

<http://URL:PORT/Mount>



in this example
<http://www.rds.it:8000/stream>

No other settings are required to configure Streamer Max MKII as decoder from a IceCast2 Server.

11 CONFIGURATION VIA WEB BROWSER

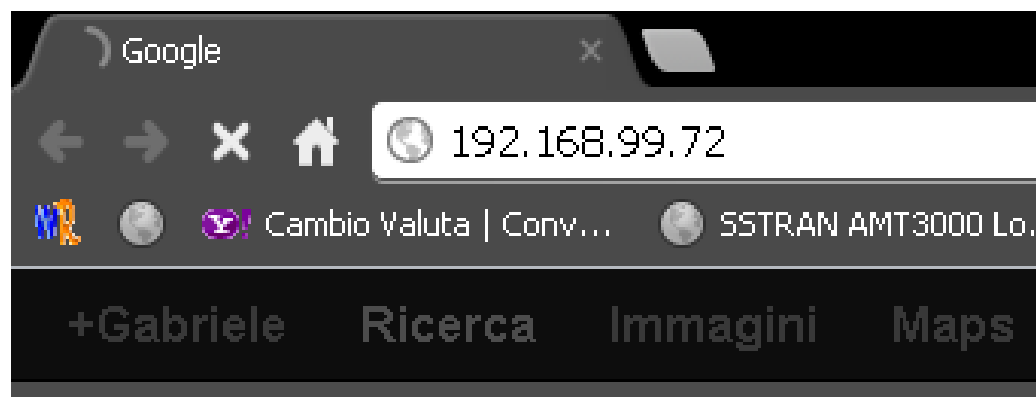
The device is programmed with a Streamer MAX MKII output factory programmed with a Static IP

192.168.99.70

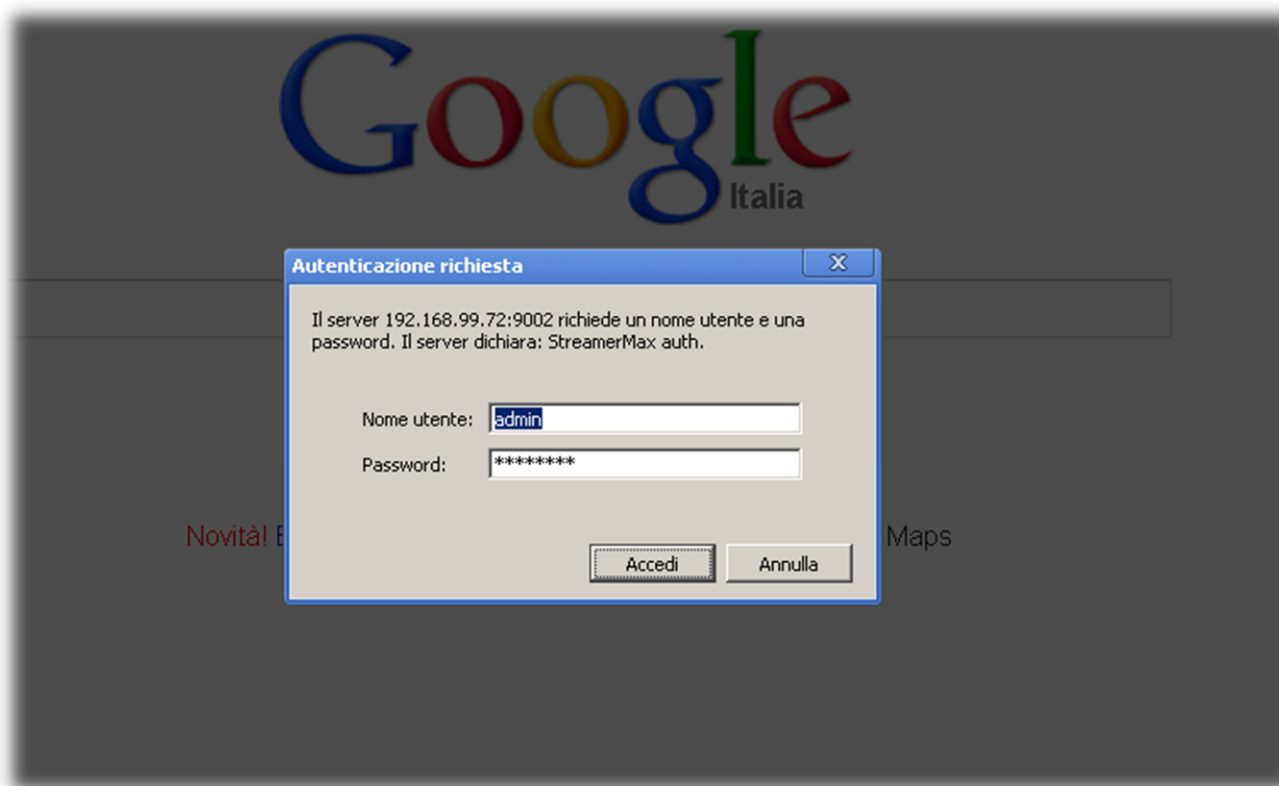
To configure the device via web browser Streamer Max need to set the network card on your PC class 99 and enter a free IP that is NOT because 70 already in use. It's not possible to use the internal DHCP. Web browsers supported:

- Internet Explorer 8.0
- Mozilla Firefox
- Google Chrome
- Safari

Write in the address bar the IP 192.168.99.70



Once you have found the destination of the web server will see the access mask apparatus, which has made a Login Username and Password.



Username and password by default are:

User Name: admin

Password: admin

Press OK and you will see the page "STATUS" or Streamer MAX main page. This page is easier to find a quick- glance overview of all configuration parameters.

11.1 HOME PAGE:

In the following home page all the main information are reported. The Home page is

Streamer MAX MKII

↑
Network
Encoder
Decoder
Audio I/O
Setup
Admin

Cloud Mode
Disabled
User Logged
admin
Logout

GENERAL INFORMATION

Name	Date	GPI	GPO	Network Selected	Rel. Firmware	Ref. WebApp
Macchina Encoder in Studio	18/06/15	1 2	1 2	LAN	0.9.6	0.9.6
Location	Time	Status	IP Address	Subnet Mask	Default Gateway	
-----	09:30:34	Enabled	192.168.099.253	255.255.255.000	192.168.099.100	

ENCODER STATUS CONNECTED

Left

Right

-80 -70 -60 -50 -40 -30 -20 -10 0dBFS

Audio Input	Gain	RMS-L	RMS-R	Peak-L	Peak-R
Analogic	0.0 dB	-108.0 dBFS	-108.0 dBFS	-105.0 dBFS	-105.0 dBFS
Status	Protocol	Encoder	Bit Rate	Mode	Freq.
Connected	Icecast-Srv	MP3	192 kbps	Stereo	44.1 kHz

Encoder Stream Info
Server Local Url: <http://192.168.099.253:8000/stream1>

DECODER STATUS CONNECTED

Left

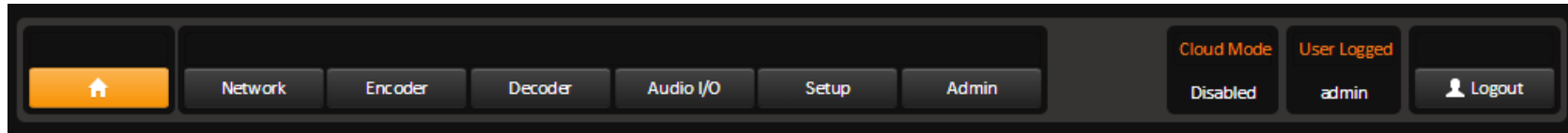
Right

-80 -70 -60 -50 -40 -30 -20 -10 0dBFS

Dig Out Gain	An Out Gain	RMS-L	RMS-R	Peak-L	Peak-R
0.0 dB	-12.0 dB	-90.0 dBFS	-89.9 dBFS	-87.0 dBFS	-87.0 dBFS
Status	Protocol	Encoder	Bit Rate	Mode	Freq.
Connected	Icecast	MP3	192 kbps	Stereo	44.1 kHz

Decoder Stream Info
From Url: <http://127.0.0.1:8000/stream1>

The central front bar allows to browse inside the Streamer Max MKII. This bar is mainly divided in two sections, the Home page where it is possible to see the status of the equipment and the Settings, as Network, Encoder/Decoder Audio I/O, Setup and Admin. All these pages are under Admin/Password protection.



In the lower side some general information are reported, as Streamer Max MKII name, the Location where it is installed, the IP Ethernet Address. The internal clock time and date information are reported together with GPIn and GPOut, and the Release Firmware and web page.

GENERAL INFORMATION						
Name	Date	GPI	GPO	Network Selected	Rel. Firmware	Rel. WebApp
Macchina Encoder in Studio	18/06/15	1 2	1 2	LAN	0.9.6	0.9.6
Location	Time	Status	IP Address	Subnet Mask	Default Gateway	
-----	09:30:34	Enabled	192.168.099.253	255.255.255.000	192.168.099.100	



The HOME page is mainly divided in two: in the Left side all the information about the Encoder and in the Right side all the information about the decoder.

ENCODER STATUS CONNECTED

Left

Right

-80 -70 -60 -50 -40 -30 -20 -10 0dBFS

Audio Input	Gain	RMS-L	RMS-R	Peak-L	Peak-R
Analogic	0.0 dB	-108.0 dBFS	-108.0 dBFS	-105.0 dBFS	-105.0 dBFS

Status	Protocol	Encoder	Bit Rate	Mode	Freq.
Connected	Icecast-Srv	MP3	192 kbps	Stereo	44.1 kHz

Encoder Stream Info

Server Local Url: <http://192.168.099.253:8000/stream1>

DECODER STATUS CONNECTED

Left

Right

-80 -70 -60 -50 -40 -30 -20 -10 0dBFS

Dig Out Gain	An Out Gain	RMS-L	RMS-R	Peak-L	Peak-R
0.0 dB	-12.0 dB	-90.0 dBFS	-89.9 dBFS	-87.0 dBFS	-87.0 dBFS

Status	Protocol	Encoder	Bit Rate	Mode	Freq.
Connected	Icecast	MP3	192 kbps	Stereo	44.1 kHz

Decoder Stream Info

From Url: <http://127.0.0.1:8000/stream1>

11.1.1 NTP TIME AND DATE SYNCH IN WOLF 2MS

If the Date and Time are with a red label below the box, this means that Streamer Max MKII has not been able to synchronize via NTP the time and the clock.

GENERAL INFORMATION						
Name	Date	GPI	GPO	Network Selected	Rel. Firmware	Rel. WebApp
Macchina Encoder in Studio	18/06/15	1 2	1 2	LAN	0.9.6	0.9.6
Location	Time	Status	IP Address	Subnet Mask	Default Gateway	
-----	09:30:34	Enabled	192.168.099.253	255.255.255.000	192.168.099.100	

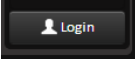
All the information proposed in this page are only to be visualized.



11.1.2 LOGIN INTO STREAMER MAX MKII AND ADMIN SETTINGS(ADMIN)

11.1.2.1 LOGIN INTO STREAMER MAX

It is possible to LogIn into Streamer Max MKII and, as per right management, execute some to set each own user name and password. Put the standard user called "admin" and password



changes. By pressing the Login button is it possible "admin" for the authentication.

admin


.....

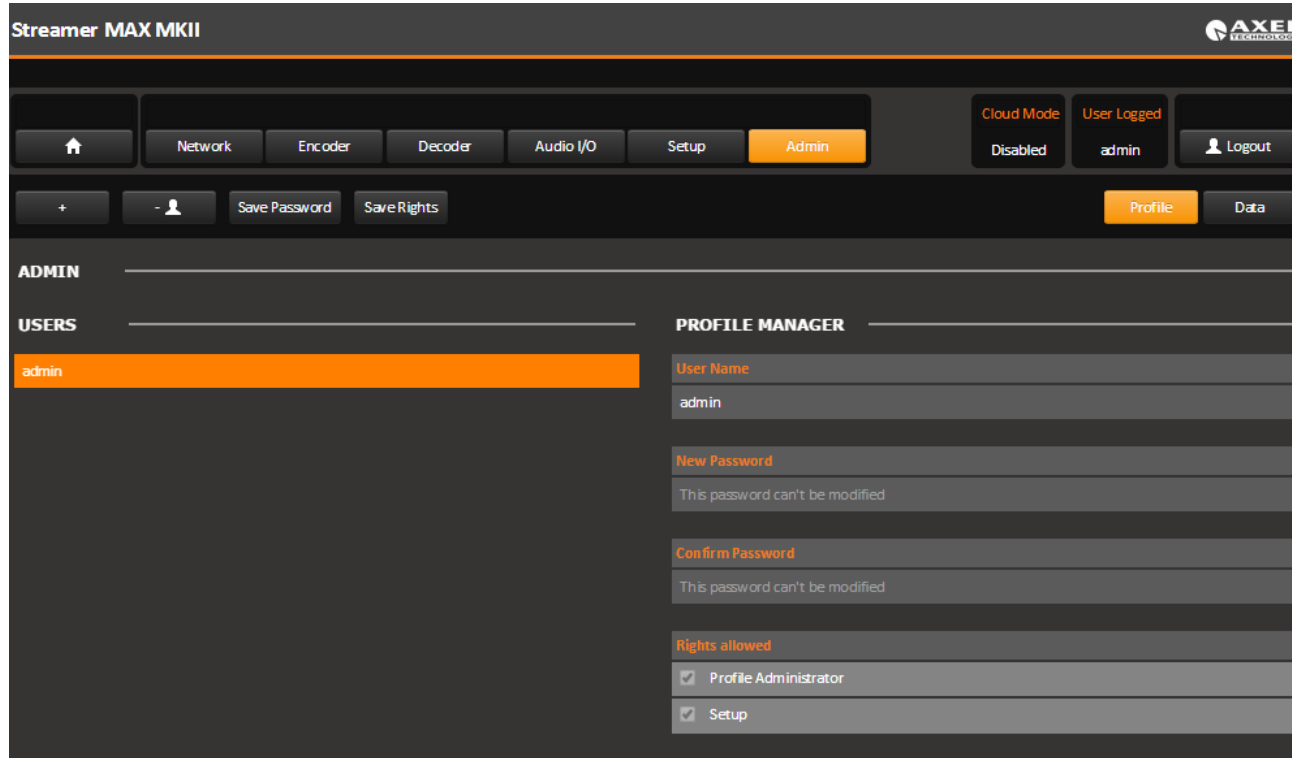
OK Cancel

Status : Insert user name and password

11.1.2.2 ADMIN SETTINGS(ADMIN)

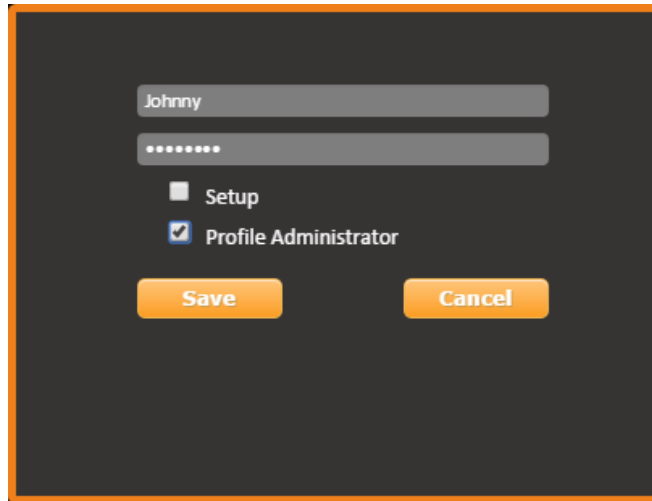
11.1.2.2.1 PROFILE

Opening **Admin** section you are in the  section



To create a new user click on the button  in the **Admin** tab, **Profile** page.

And insert the new user name and the new password in the following spaces:



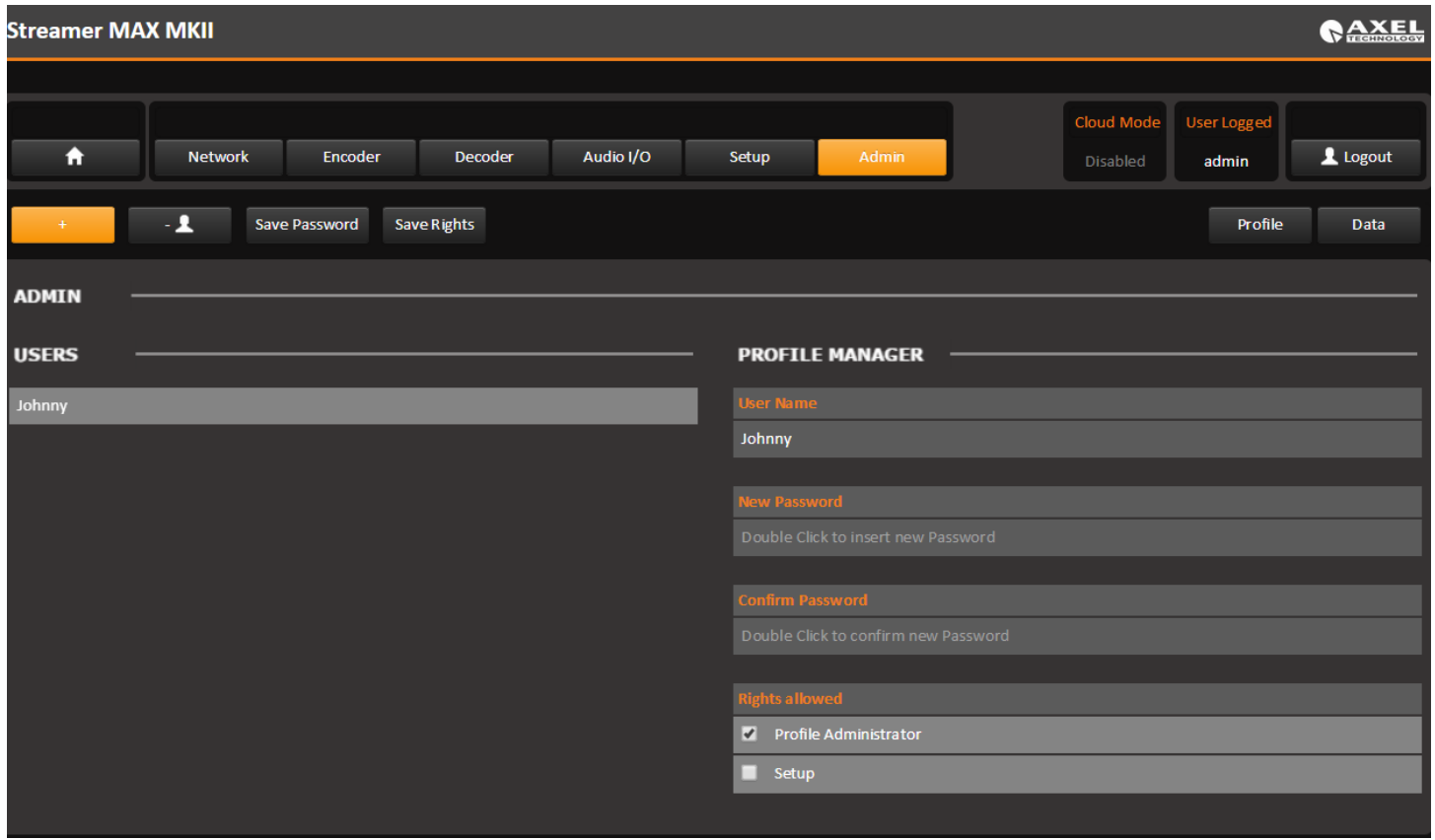
The image shows a dark-themed user creation form with an orange border. It contains two input fields: the first is labeled 'Johnny' and the second is filled with dots. Below the fields are two checkboxes: 'Setup' (unchecked) and 'Profile Administrator' (checked). At the bottom are two orange buttons labeled 'Save' and 'Cancel'.

Decide what kind of user you want. Decide if the user can modify the Setup or if he is a Profile Administrator.

- Be aware that the user and admin are case sensitive
2. For the password field there are no minimal limitation
 3. No complexion requirement must be reached
 4. At least one character must be filled
 5. No Empty password allowed
 6. The total length is 50 characters
 7. Backspace is a character, and considered as character

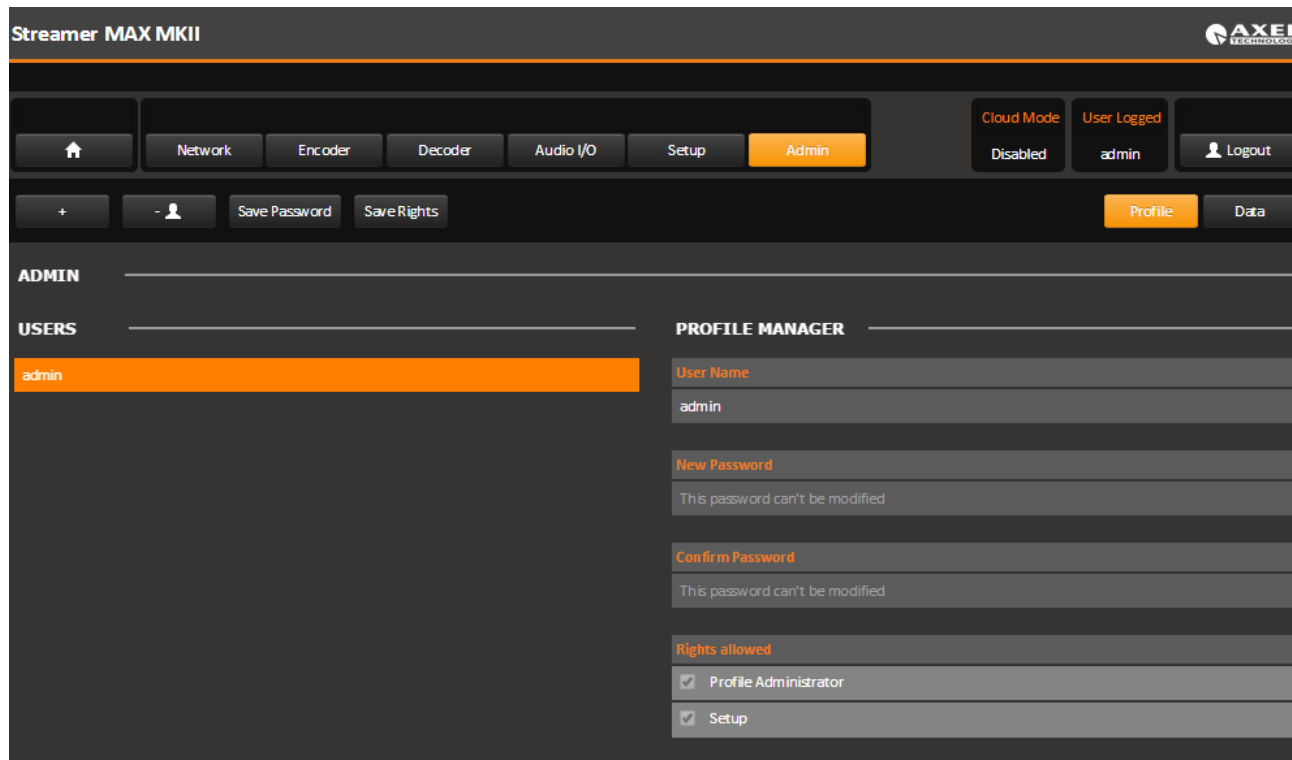
Once a new user is created with Profile Administrator rights allowed, the "admin" user disappear from the list of users from the **Admin** tab.

The Admin screen is divided in two parts: the **Users** and **Profile Manager**. From the Profile Manager side it is possible to manage all the rights for each single user and to change User Name and Password. After every Password changes click on **Save Password**. After every Rights changes click on **Save Rights**.



To remove the user, click on it from the **Users** side and click on  button.

But, once from the new user the Profile Administrator is removed, Streamer Max MKII creates automatically one more time the “admin” user with all rights allowed. This admin user is highlighted in yellow, as per picture below:



NOTE: It is not possible to change the password for admin user

11.1.2.2.2 DATA

Streamer MAX MKII AXEL TECHNOLOGY

Navigation: Home | Network | Encoder | Decoder | Audio I/O | Setup | **Admin**

Cloud Mode: Disabled | User Logged: Johnny | Logout

Profile | **Data**

ADMIN

CONFIGURATIONS | STATUS

Upload | Download

ACCESS LOG | STATUS

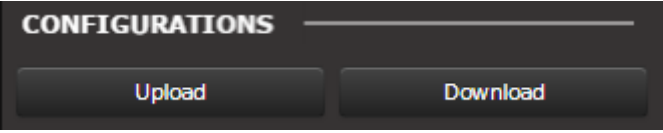
Refresh | Download

```
[2015-06-23 10:08:53] Logout: Johnny
[2015-06-23 10:09:03] Login: Default_admin, Rights: SETUP-ADMIN
[2015-06-23 10:09:59] Logout: Default_admin
[2015-06-23 10:10:13] Login: Johnny, Rights: ADMIN
[2015-06-23 10:10:56] Logout: Johnny
[2015-06-23 10:11:06] Login: Admin, Rights:
[2015-06-23 10:11:16] Logout: Admin
[2015-06-23 10:11:28] Login: Johnny, Rights: ADMIN
```

TRAP EVENT LOG | STATUS

Refresh | Download

```
[2015-06-23 01:51:44] Trap: ACTIVITY HEART SIGNAL
[2015-06-23 01:52:44] Trap: ACTIVITY HEART SIGNAL
[2015-06-23 01:53:44] Trap: ACTIVITY HEART SIGNAL
[2015-06-23 01:54:44] Trap: ACTIVITY HEART SIGNAL
[2015-06-23 01:55:44] Trap: ACTIVITY HEART SIGNAL
[2015-06-23 01:56:44] Trap: ACTIVITY HEART SIGNAL
[2015-06-23 01:57:44] Trap: ACTIVITY HEART SIGNAL
[2015-06-23 01:58:44] Trap: ACTIVITY HEART SIGNAL
```



Upload: you can upload from here a configuration file to set all the Streamer MAX MKII parameters

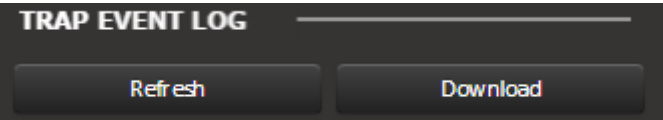
Download: you can download from here a .json file with all Streamer MAX MKII settings

Every section of the **Data** panel has a status bar showing the progress of every operation you do



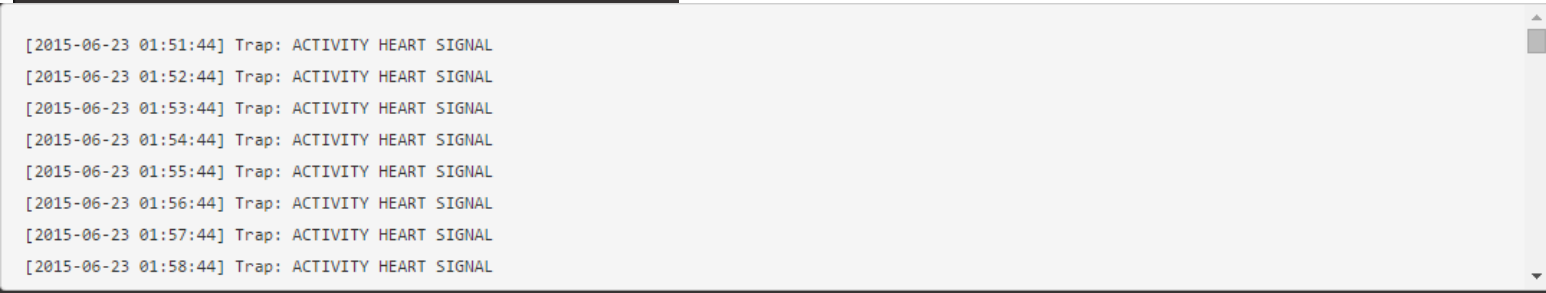
Refresh: click here to refresh the access log list of the picture below.

Download: you can download from here a .log file with the whole access log list

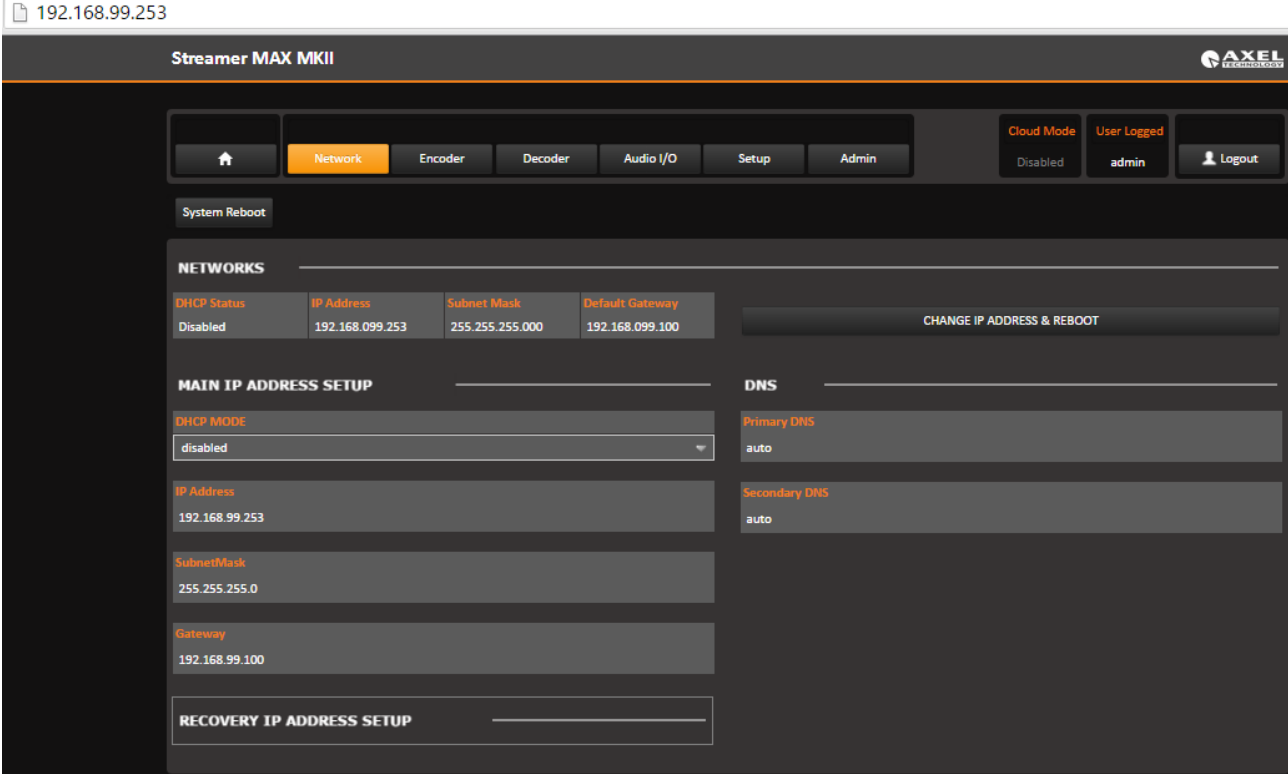


Refresh: click here to refresh the trap event log list of the picture below.

Download: you can download from here a .log file with the whole trap event log list



11.1.3 NETWORK SETTINGS(NETWORK)



By pressing this button it is possible to access and modify the value for Ethernet.

Streamer Max MKII is featured with double IP: **Main IP Address** and **Recovery IP Address**.

In **MAIN IP ADDRESS SETUP** you can set an IP Address, Subnet Mask, and Gateway for the network card.

To open the **RECOVERY IP ADDRESS SETUP** double click on it:

RECOVERY IP ADDRESS SETUP

WARNING!!
DON'T CHANGE THIS IP ADDRESS
UNLESS YOU REALLY MEAN IT

IP Address
192.168.120.120

SubnetMask
255.255.255.0

CHANGE DEFAULT ADDRESS & REBOOT

RECOVERY IP ADDRESS SETUP: it is a settings that allow the user to configure a different and Static IP from the “Main IP Address” and help the user to find the Streamer Max MKII in case the Main IP Address is lost or in the case the user want to use a DHCP Mode Enabled.

DHCP MODE: Disabled

Main IP Address: 192.168.99.253

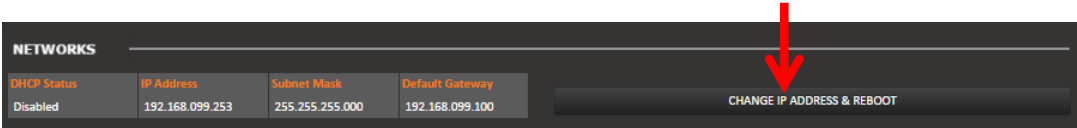
Recovery IP Address: 192.168.120.120

MAIN IP ADDRESS SETUP

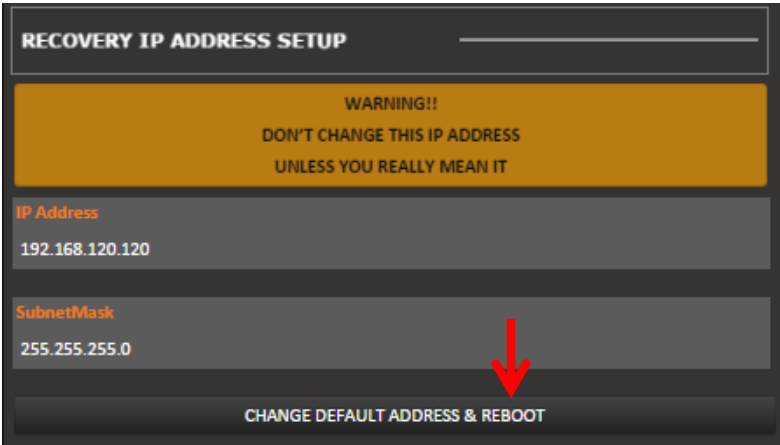
DHCP MODE
disabled

If you enable the DHCP Mode you do not know what IP has been assigned by DHCP server. If the user set a Recovery IP Address as 192.168.120.120 SubNet Mask as 255.255.255.0 via web browser it is possible to reach the unit using this standard and fixed IP address. Then the user can see what IP has been assigned by the DHCP Server from the Home page, in the right side of Home -> Status -> IP Address

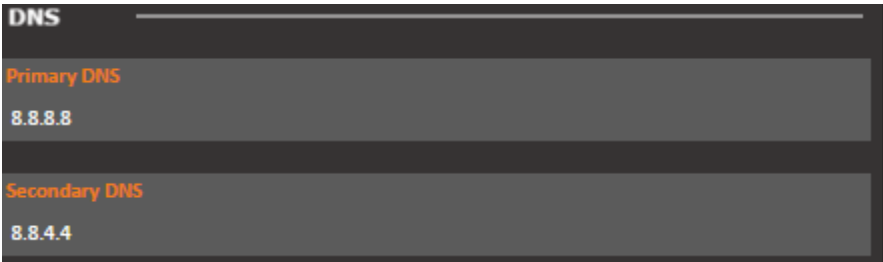
Each time a modify has been done, Streamer Max MKII must be rebooted otherwise changes maybe not applied.



If you want to change the **Main IP address** click on **CHANGE IP ADDRESS & REBOOT** at the right of the **Network** section



If you want to change the **Recovery IP Address** click on **CHANGE DEFAULT ADDRESS & REBOOT** from the **RECOVERY IP ADDRESS SETUP** as shown in this picture

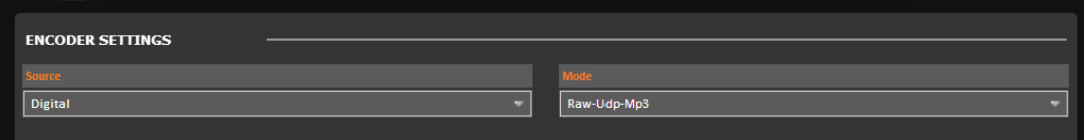


You can type here **auto** to let your ISP gives you a DNS service or you can assign the DNS you prefer as Google DNS or Open DNS.

11.1.4 ENCODER SETTINGS (ENCODER)

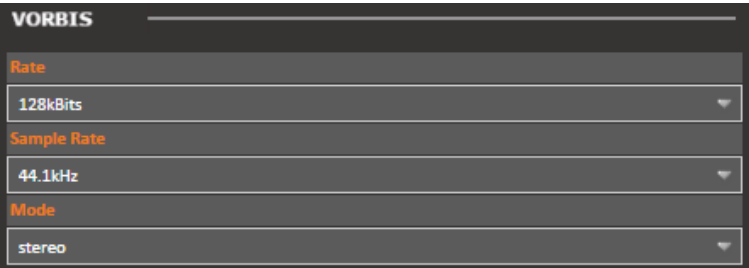
By pressing the Encoder button, the user can access on all the encoding features.

Here reported below each single parameter explained singly.

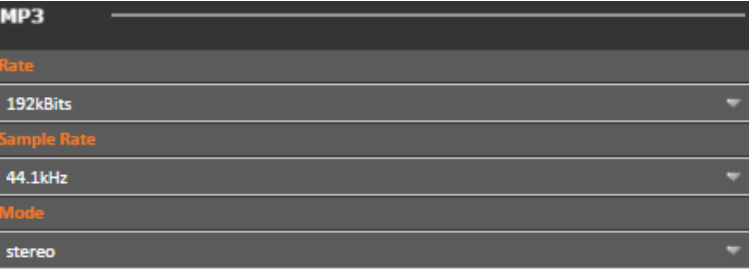


Source: this is the input of the Streamer Max MKII. Should be Analogic, Digital or Microphone.

Mode: This menu allows the user to select how to encode the Audio. All the possible combination are strictly related to below different Encoder



Here you can set the **Rate**, the **Sample Rate** and the **Mode** of the OGG VORBIS audio encoding. Every time you select in Encoder Settings->Mode: "**IcecastSource-Vorbis**" or "**IcecastServer-Vorbis**", you can set these parameters.



Here you can set the **Rate**, the **Sample Rate** and the **Mode** of the MP3 audio encoding. Every time you select in Encoder Settings->Mode: "**Rtp-Udp-Mp3**" or "**IcecastSource-Mp3**" or "**ShoutcastSource-Mp3**" or "**IcecastServer-Mp3**", you can set these parameters

OPUS	
Rate	
320kBits	▼
Sample Rate	
48kHz	▼
Mode	
Auto	▼

Here you can set the **Rate**, the **Sample Rate** and the **Mode** of the OPUS audio encoding. Every time you select in Encoder Settings->Mode: "**IcecastSource-Opus**" or "**IcecastServer-Opus**", you can set these parameters.

PCM	
Sample Rate	
44.1kHz	▼
Mode	
stereo	▼

Here you can set the **Rate**, the **Sample Rate** and the **Mode** of the PCM audio encoding. Every time you select in Encoder Settings->Mode: "**Rtp-Udp-Pcm**", you can set these parameters

ICECAST SOURCE	
URL	
127.0.0.1 icecast url	
Password	
**	
Mount	
**	
USER NAME	
source	
Stream Name	
source	
Port	
8000	

If you have an external icecast server remember to select in Encoder Settings->Mode: "**IcecastSource-Mp3**" or "**IcecastSource-Opus**" or "**IcecastSource-Vorbis**". Here you can set all the parameters to stream your audio into a specific mount point of your icecast. Set the **Url** of your icecast server, the **Password** for the authentication, the **Mount** in which your audio will be sent. Then set the **User Name**, the **Stream Name** and the **Port** in which your audio will be sent. Then listeners can connect to the icecast server to reach your audio stream via web.

SHOUTCAST SOURCE

URL
shoutcast url

Password

Port
8000

Stream Name

ICECAST SERVER

Password

Mount
stream1

USER NAME

UDP

Port
5002

Host
192.168.0.211

TAGS

Tag Organization -----	Tag Title -----
Tag Genre -----	Title Mode internal

If you have an external shoutcast server remember to select in Encoder Settings->Mode: “**ShoutcastSource-Mp3**”. Here you can set all the parameters to stream your audio into a specific mount point of your shoutcast. Set the **Url** of your shoutcast server and the **Password** for the authentication. Then set the **Port**, and the **Stream Name** in which your audio will be sent. Then listeners can connect to the shoutcast server to have access to your audio stream via web.

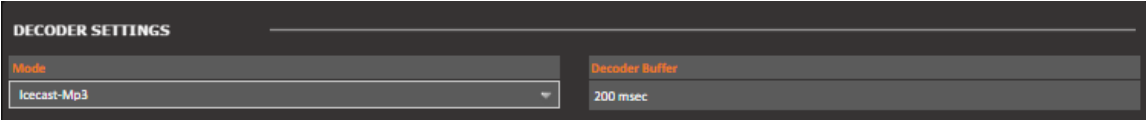
You can also distribute the audio directly to your listeners as if your Streamer Max MKII would be an icecast server. Set here the new **Password**, the **Mount** and the new **User Name** for your audio stream reception

Here you can set the **Port**, the **Host** . Every time you select in Encoder Settings->Mode: “**Rtp-Udp-Pcm**” or “**Raw-Udp-Mp3**” or “**Rtp-Udp-Opus**” or “**Rtp-Udp-Aac**” you can set these parameters

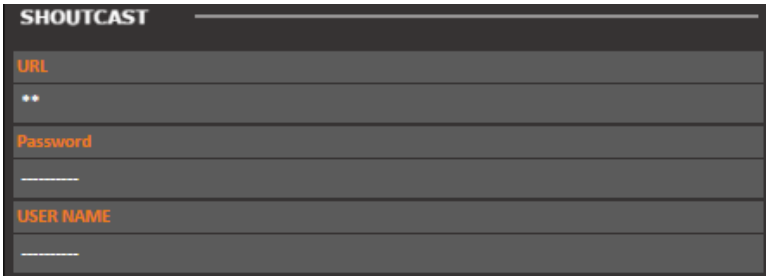
View all data

If you enable View all data at the bottom of the page you can set some Tags; this section is optional, you fill it only if you want to attach metadata at your audio stream. You can also decide if the **Title Mode** is **internal** or **external**. If it is **external** it do not depend on your Streamer Max.

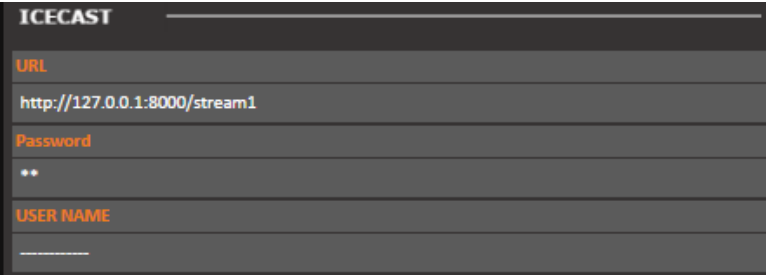
11.1.5 DECODER SETTINGS (DECODER)



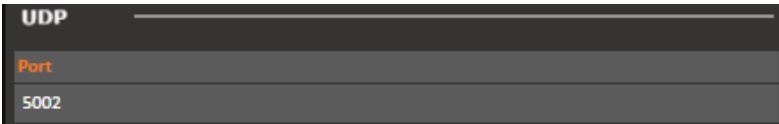
In **Mode** you have to set the protocol of communication and the format of the audio stream in reception. In **Decoder Buffer** you set the time buffer of the decoder.



If you have an external Shoutcast server remember to select in Decoder Settings->Mode: "**Shoutcast-Mp3**", "**Shoutcast-Opus**", "**Shoutcast-Vorbis**", "**Shoutcast-Aac**". Here you can set all the parameters to receive your audio from your Shoutcast. Set the **Url** of your Shoutcast server. Set the **Password** and the **User Name** for the authentication.



If you have an external Icecast server remember to select in Decoder Settings->Mode: "**Icecast-Mp3**", "**Icecast-Opus**", "**Icecast-Vorbis**", "**Icecast-Aac**". Here you can set all the parameters to receive your audio from your Icecast. Set the **Url** of your Icecast server. Set the **Password** and the **User Name** for the authentication.



Here you can set the **Port**. Every time you select in Decoder Settings->Mode: "**Rtp-Udp-Pcm**" or "**Raw-Udp-Mp3**" or "**Rtp-Udp-Opus**" or "**Rtp-Udp-Aac**" the decoder refers to the previously set parameters.

PCM
Mode
stereo
Sample Rate
44.1kHz

Here you can set the **Mode**, the **Sample Rate** and the of the PCM audio stream in reception. Every time you select in Decoder Settings->Mode: **"Rtp-Udp-Pcm"**, the decoder refers to these previously set parameters.

AAC
Mode
stereo
Sample Rate
44.1kHz

Here you can set the **Mode**, the **Sample Rate** and the of the AAC audio stream in reception. Every time you select in Encoder Settings->Mode: **"Icecast-AAC"**, **"Shoutcast-AAC"** **"Rtp-Udp-Aac"**, the decoder refers to these previously set parameters.

11.1.6 AUDIO SETTINGS (AUDIO I/O)

Here you can set parameters for the Input Audio Setup and for the Output Audio Setup.

INPUT AUDIO SETUP

Digital Input Gain
0.00 dB

Decide here the dB level for the Gain of the digital Input

Analogic Input Gain
0.00 dB

Decide here the dB level for the Gain of the analogic Input

Mic Gain
30.00 dB

Decide here the dB level for the Gain of the Mic input

OUTPUT AUDIO SETUP

Digital Output Gain
0.00 dB

Decide here the dB level for the Gain of the digital Output

Analogic Output Gain
-12.00 dB

Decide here the dB level for the Gain of the analogic Output

Audio Active Output
Analogic

Decide here what kind of audio you want to activate for the Output

INPUT AGC SETUP

Encoder Agc Thr
-10.00 dBr

Decide here the dBr Threshold for the AGC(automatic gain control) on the encoder side

Encoder Agc Speed
Disabled

Decide here if you want to enable or disable the speed for the AGC on the encoder side

OUTPUT AGC SETUP

Decoder Agc Thr
-10.00 dBr

Decide here the dBr Threshold for the AGC(automatic gain control) on the decoder side

Decoder Agc Speed
Disabled

Decide here if you want to enable or disable the speed for the AGC on the decoder side

SILENCE INPUT ALARM SETUP

Encoder Silence Mask
unmasked

Decide here if you want to **mask** or **unmasked** the the silence control on the encoder side

Encoder Silence Trap Enable
Disabled

If the **Encoder Silence Mask** is **unmasked** you can decide to send an encoder trap to your SNMP server, if you have one.

Encoder Silence Thr
-30.00 dBr

Decide here the dBr Threshold for the silence control on the encoder side

Encoder Silence Time
20 sec

Decide here the time for the encoder silence control. Beyond this time a silence control alarm is created.

SILENCE OUTPUT ALARM SETUP

Decoder Silence Mask
masked

Decide here if you want to **mask** or **unmasked** the the silence control on the decoder side

Decoder Silence Trap Enable
Disabled

If the **Decoder Silence Mask** is **unmasked** you can decide to send a decoder trap to your SNTP server, if you have one.

Decoder Silence Thr
-30.00 dBr

Decide here the dBr Threshold for the silence control on the decoder side

Decoder Silence Time
20 sec

Decide here the time for the decoder silence control. Beyond this time a silence control alarm is created.

CLIPPING INPUT ALARM SETUP

Encoder Clipping Mask
masked

Decide here if you want to **mask** or **unmasked** the the clipping control on the encoder side

Encoder Clipping Trap Enable
Disabled

If the **Encoder Clipping Mask** is **unmasked** you can decide to send an encoder trap to your SNTP server, if you have one.

CLIPPING OUTPUT ALARM SETUP

Decoder Clipping Mask
masked

Decide here if you want to **mask** or **unmasked** the the clipping control on the decoder side

Decoder Clipping Trap Enable
Disabled

If the **Encoder Clipping Mask** is **unmasked** you can decide to send a decoder trap to your SNTP server, if you have one.

11.1.7 SETUP

In this page it's possible to set some working parameters about Streamer MAX MKII. This section is divided in three different sub-sections: MAIN -1, NMS 1-2, NMS 3-4.

11.1.7.1 MAIN-1 PAGE

SNMP SETTINGS	
Read Community	public
Write Community	private

HTTP SETTINGS	
HTTP Band Mode	normalBand

TIME AND NTP SETTINGS	
IP Address	193.204.114.232
Auto Request Time	10 min
Failure Trap	trapDisable
Local Time Set	--- <input type="button" value="Sync to PC Time"/>
Local Time Zone Definition	Europe/Rome
ACTIVITY HEART SIGNAL	
Trap Dispatch Timing	1 min

In this box it is possible to set the password for the SNMP protocol in read and write.

HTTP Band Mode: Settings for the network band audio available. Available set: low/normal/high band or gprs band

IP Address: is the IP of the NTP server.

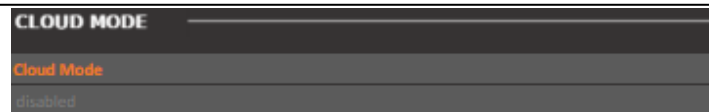
Auto Request Time: minutes between each single Time Synch.

Failure Trap: If Streamer MAX MKII is not able to set the time a trap is sent to NSM.

Local time Set: it's possible to send a time synch command via PC

Time Zone definition: it's possible to set the GMT Time zone from this control

Activity Heart Signal: each "n" minutes as express in the box, the Streamer MAX MKII sends a trap to the NMS System in order to understand that the Streamer MAX MKII is "alive" and working correctly



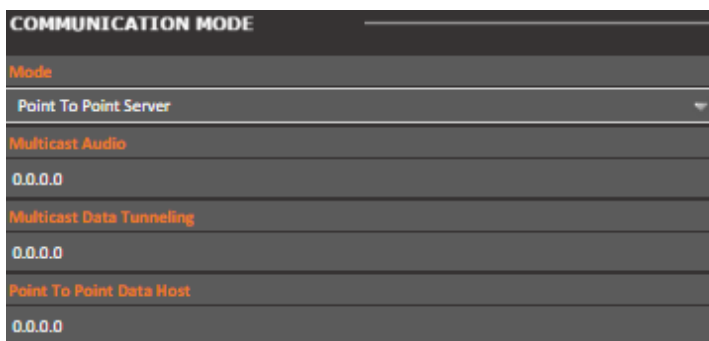
At this stage, **Cloud Mode** must be disabled. Next Firmware release will be improved with this feature



It is possible from here to send via UDP an action on remote GPIO



It is possible from here to set two General Purpose Output on some allarms



Sezione dedicata al communication mode per le modalità.

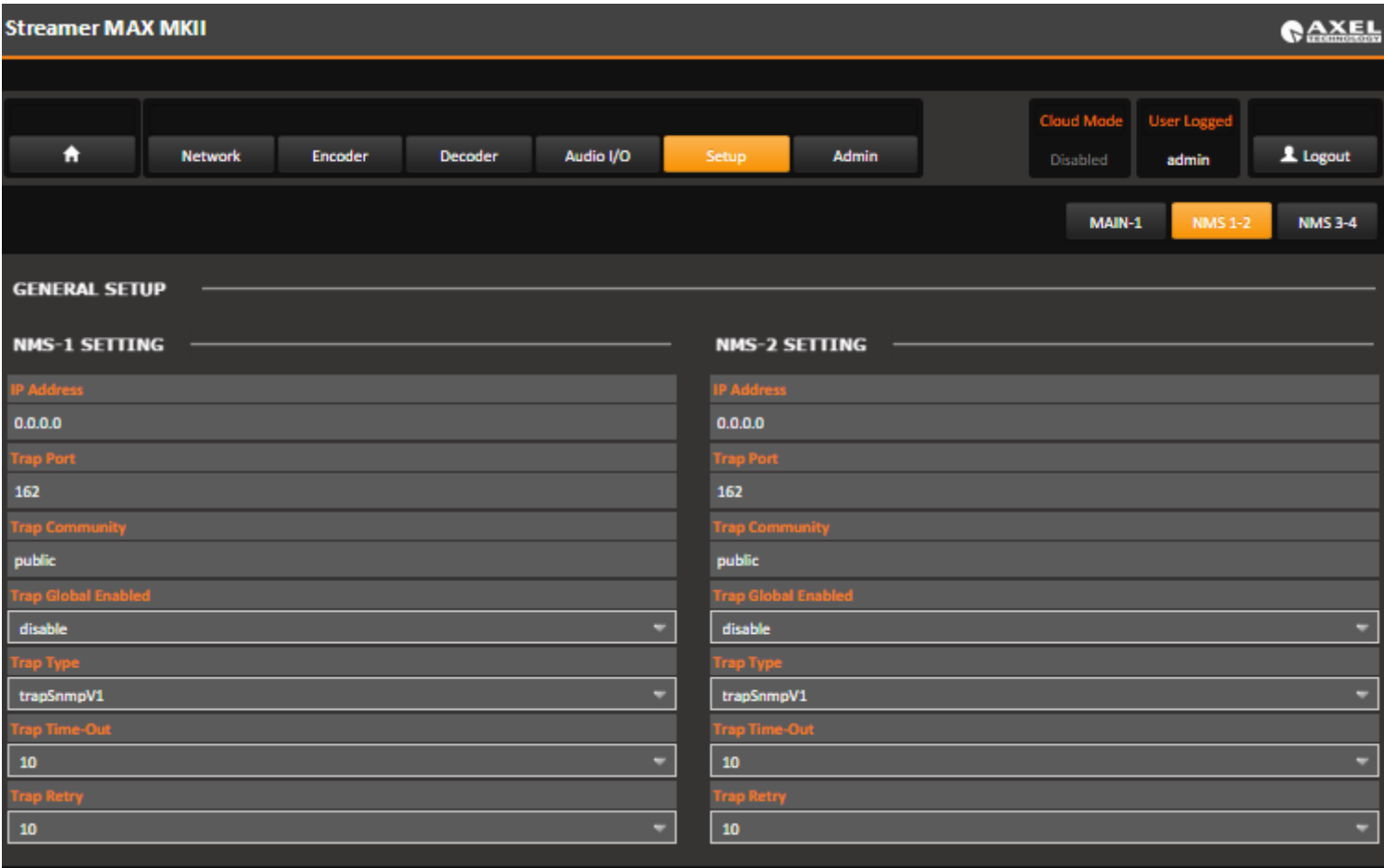
- Point to Point Server+
- Point to Point Client
- Multicast Server
- Multicast Client



In the trap, you can enable or disable the integration of the link quality information

11.1.7.2 NMS 1-2 PAGE

In this setup it is possible to set some parameter about the communication between the Streamer MAX MKII and the Network Management System. SNMP is the protocol to communicate between remote equipment and NMS.



NMS-1 SETTING	
IP Address	0.0.0.0
Trap Port	162

In this box it is possible to set the IP Address and the Port to communicate with the Network Management System

Trap Community	public
----------------	--------

This is the Trap Community string

Trap Global Enabled	disable
Trap Type	trapSnmpV1

Trap Global Enable: Enable or Disable the trap notification to the NMS

Trap Type: configures the Trap SNMP version

Trap Time-Out	10
Trap Retry	10

Trap Time-Out: if the Trap Type is *InformSnmpV2*, this value sets the time between each single retry, expressed in seconds

Trap Retry: if the Trap Type is *InformSnmpV2*, this value sets the maximum number of retry

11.1.7.3 NMS 3-4 PAGE

In this setup it is possible to set some parameter about the communication between the Streamer MAX MKII and the Network Management System. SNMP is the protocol to communicate between remote equipment and NMS. The same configuration can be found in the NMS 1-2 Page.

The screenshot displays the 'Streamer MAX MKII' web interface. At the top, there is a navigation menu with buttons for 'Network', 'Encoder', 'Decoder', 'Audio I/O', 'Setup' (highlighted in orange), and 'Admin'. On the right side of the navigation bar, there are status indicators: 'Cloud Mode Disabled', 'User Logged admin', and a 'Logout' button. Below the navigation bar, there are three tabs: 'MAIN-1', 'NMS 1-2', and 'NMS 3-4' (highlighted in orange). The main content area is titled 'GENERAL SETUP' and is divided into two columns: 'NMS-2 SETTING' and 'NMS-4 SETTING'. Each column contains a list of configuration parameters with their current values and dropdown menus for selection.

Parameter	NMS-2 SETTING Value	NMS-4 SETTING Value
IP Address	0.0.0.0	0.0.0.0
Trap Port	162	162
Trap Community	public	public
Trap Global Enabled	disable	disable
Trap Type	trapSnmpV1	trapSnmpV1
Trap Time-Out	10	10
Trap Retry	10	10

12 STREAMER MAX ELITE – CONFIGURATION FROM DEVICE PANEL

In the following section we will analyze procedures to set STREAMER MAX ELITE parameters by using the Jog Shuttle Wheel on the device panel.



On the left you can see the led display, by using the Jog Shuttle Wheel on the right you can edit all the available parameters.

The next picture shows you the STREAMER MAX ELITE Home page:



Here you can select between the following five sections: INF, ENC, DEC, SETUP,



The whole STREAMER MAX ELITE Menu could be outlined in the following way:

<u>SECTION</u>	PAGE 1	Parameter 1	Value 1 / Value 2 / VALUE...
		Parameter 2
		Parameter 3	...
		Parameter...	...
		Next Page	
		Previous Page	
		PAGE 2	...
PAGE 3	...		
PAGE...	...		

By **rotating** the Jog Shuttle Wheel you can select between one of the available displayed sections/items/parameters/values. The selected item starts to blink.

By **pressing** the Jog Shuttle you can enter in the selected section or in the parameter editing mode. Inside every section you can have different pages,


Select and press to go to the next page. Select and press to go to the previous page

Press repeatedly or to save all edits you did. You will be back to the Home Page.

Every page has different parameters, reach the desired parameter with the Jog Shuttle rotation and press it to enter in the editing mode:

The parameters could be grouped in two general cases:

- 1) The first group is composed by parameters in which is possible to select between default parameters like DISABLED/ENABLED.
 - By rotating the Jog Shuttle select the desired choice.
 - Press the Jog Shuttle to confirm the edit.
- 2) The second group is composed by parameters in which is possible to write characters (In example: URL, Port, IPADD, NAME, USER, PASS...). In these

parameters is possible to insert a number, a letter or a word. In these cases you will see something like .



- by rotating the Jog Shuttle you can select the character you want to edit. In the following example the second character is selected:




- by pressing the Jog Shuttle it is possible to enable the character editing. In the following example the second character is editable:



- by rotating the Jog Shuttle select between the available (punctuation and alphanumeric) characters.
- then press the Jog Shuttle again to confirm the edit.

SECTIONS	PAGES	PARAMETERS	SELECTABLE VALUES	NOTES
				<p>In the left part of the Home Page you have a fast summary of the Encoder/Decoder side audio parameters. Press again the Jog Shuttle to exit from this section</p>
	<p>ENCODER MODE SETUP</p>	<p>MODE</p>	<p>DISABLED RTP-UDP-PCM RTP-UDP-MP3 RTP-UDP-OPUS ICECAST-SOURCE-MP3 ICECAST-SOURCE-OPUS ICECAST-SOURCE-VORBIS SHOUTCAST-SOURCE-MP3 SHOUTCAST-SOURCE-MP3 ICECAST-SERVER-VORBIS ICECAST-SERVER-MP3 ICECAST-SERVER-OPUS RTP-UDP-AAC RTP-UDP-MPEG2 RTP-UDP-AAC</p>	
	<p>ENCODER SOURCE SETUP</p>	<p>SRC</p>	<p>DIGITAL ANALOGIC MICROPHONE</p>	

ENCODER AGC SETUP	THR	-20dB_r < THR < -3dB_r
	SPD	0.0(disabled)dB/s< SPD <1.0 dB/s
ENCODER VORBIS SETUP ENCODER MP3 SETUP ENCODER OPUS SETUP	RATE	96/128/160 kBits
	FREQ	32/44.1/48 kHz
	MODE	Stereo/Mono
ENCODER PCM SETUP	MODE	Stereo/Mono
	FREQ	32/44.1/48 kHz
ENCODER AAC SETUP ENCODER MPEG2 SETUP	RATE	96/128/160 kBits
	FREQ	32/44.1/48 kHz
	MODE	Stereo/Mono
ENCODER ICECAST SRC SETUP 1/3	USER: PASS:	
ENCODER ICECAST SRC SETUP 2/3	NAME: MNT:	
ENCODER ICECAST SRC SETUP 3/3	URL: PORT:	
ENCODER SHOUTCAST SRC SETUP 1/2	NAME: PASS:	
ENCODER SHOUTCAST SRC SETUP 2/2	URL: PORT:	
ENCODER ICECAST SERV SETUP 1/2	USER: PASS:	
ENCODER ICECAST SERV SETUP 2/2	MNT:	
ENCODER UDP SETUP	HOST: PORT:5002	
ENCODER TAG SETUP 1/3	ORG: GEN:	
ENCODER TAG SETUP 2/3	TITLE: LOCN:	
ENCODER TAG SETUP 3/3	HOME:	
ENCODER TITLE MODE SETUP	MODE	Static/Dyn-Webservice

	DECODER MODE SETUP	MODE	DISABLED RTP-UDP-PCM RTP-UDP-MP3 RTP-UDP-OPUS ICECAST-MP3 ICECAST-OPUS ICECAST-VORBIS ICECAST-AAC SHOUTCAST-MP3 SHOUTCAST-OPUS SHOUTCAST-VORBIS SHOUTCAST-AAC RTP-UDP-AAC RTP-UDP-MPEG2
	DECODER PCM SETUP DECODER AAC SETUP	MODE	Stereo/Mono
	DECODER AGC SETUP	FREQ	32/44.1/48 kHz
		THR	-20dB _r < THR < -3dB _r
	DECODER ICECAST SETUP 1/2	SPD	0.0(disabled)dB/s < SPD < 1.0 dB/s
		USER: PASS:	
	DECODER ICECAST SETUP 2/2	URL:	
	DECODER SHOUTCAST SETUP 1/2	USER: PASS:	
	DECODER SHOUTCAST SETUP 2/2	URL:	
	DECODER UDP SETUP	PORT:	
DECODER BUFFER	BUFF (msec):		

SETUP	LAN1 SETUP	IPADD: SMASK: GTWAY:			
	DEF SETUP	IPADD: SMASK:			
	LAN DHCP MODE SETUP	MODE		DISABLE ENABLE	
	LAN DNS SETUP	PRI (LAN PRIMARY DNS EDIT): SEC(LAN SECONDARY DNS EDIT):		Auto – or type your desired DNS Auto – or type your desired DNS	
	GENERAL PURPOSE OUTPUT MODE	GPO1: GPO2:		DISABLED ENCODER CONN. FAIL ENCODER CLIPPING ENCODER SILENCE DECODER CONN. FAIL DECODER CLIPPING DECODER SILENCE WEAK LINK WARNING GPI1 ENC. MIRROR GPI2 ENC. MIRROR	
	GPIO PROPAGATION SETUP	PORT: MODE:		OFF/ON	
	SERIAL PROPAGATION SETUP	PORT: MODE:		DISABLED/1200 Baud/2400 Baud/4800 Baud/9600 Baud/19200 Baud/DISABLED	
	COMMUNICATION MODE SETUP 1/2	Mc-U: MODE:		PtoP Server / PtoP Client / MCast Server / MCast Client	
	COMMUNICATION MODE SETUP 2/2	MA-U: PP-H:			
	DATA LINK QUALITY TRAP SETUP	TRAP		DISABLED ENABLED	
	ACTIVE AUDIO OUTPUT SETUP	AOUT:		ANALOGIC DIGITAL	
	IDENTIFICATION CODE	ID CODE (Serial Number)			This parameter is not editable
	STREAMER MAX - GENERAL INFORMATIONS	Name: Loc: FwRel: WebRel:			These parameters are not editable

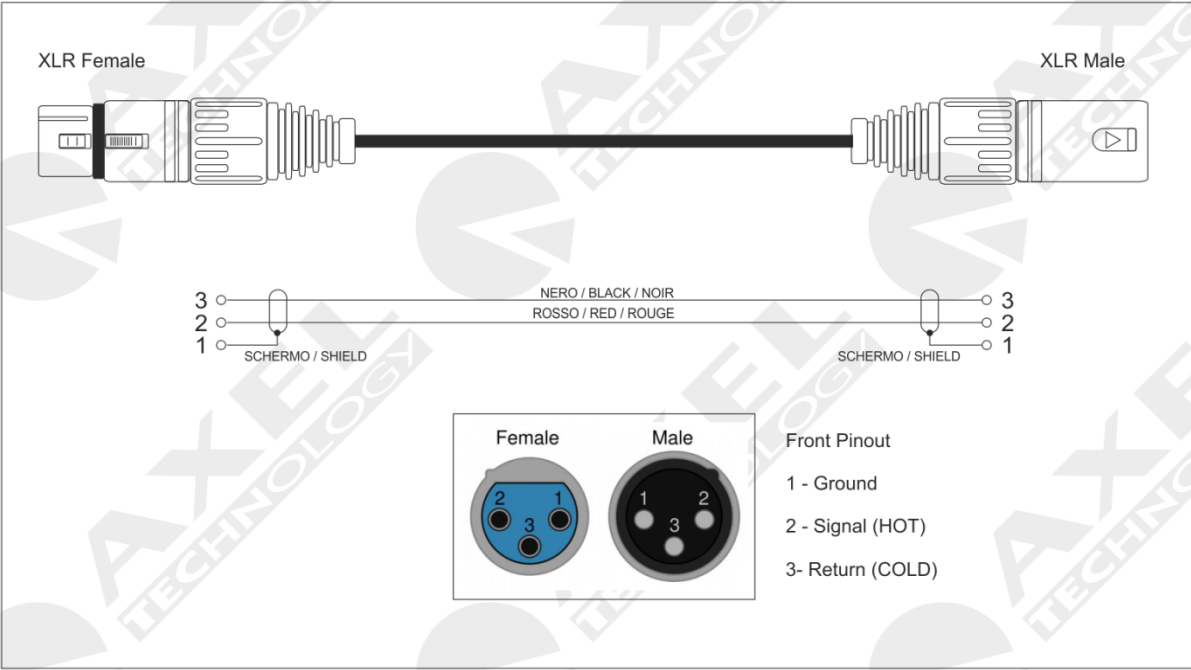
				<p>Enter in this section and rotate the Jog Shuttle to adjust the Headphone volume. The signal is only the decoded one.</p>
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13 TECHNICAL APPENDIX

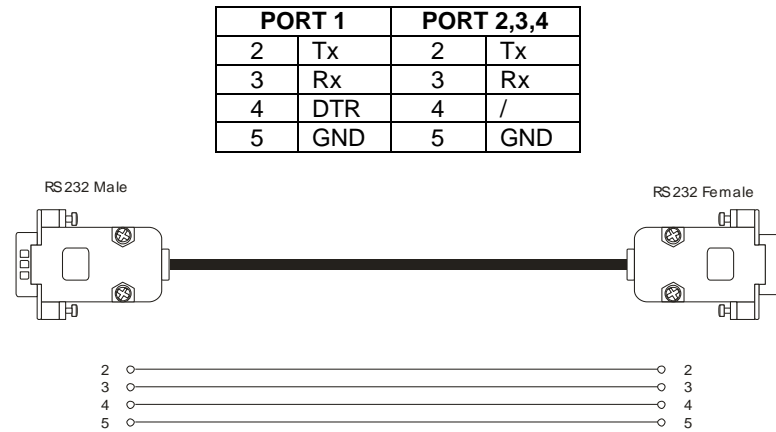
This section provides all the technical explanations, and the connection pinouts to and from the Falcon XT device. Always refer to this technical appendix for connections and connection procedures. In case of differences between the documentation below and the hardware device, please contact Axel Technology at the numbers and e-mail addresses shown at the end of this manual. Our technical and assistance department will be pleased to help you!

13.1 APPENDIX A - BALANCED AUDIO CONNECTION AND PINOUT

Balanced Audio connection diagram with balanced XLR for **Analogue** audio **input** and **output** (Left+Right) and AES/EBU **digital** audio **input** and **output**.

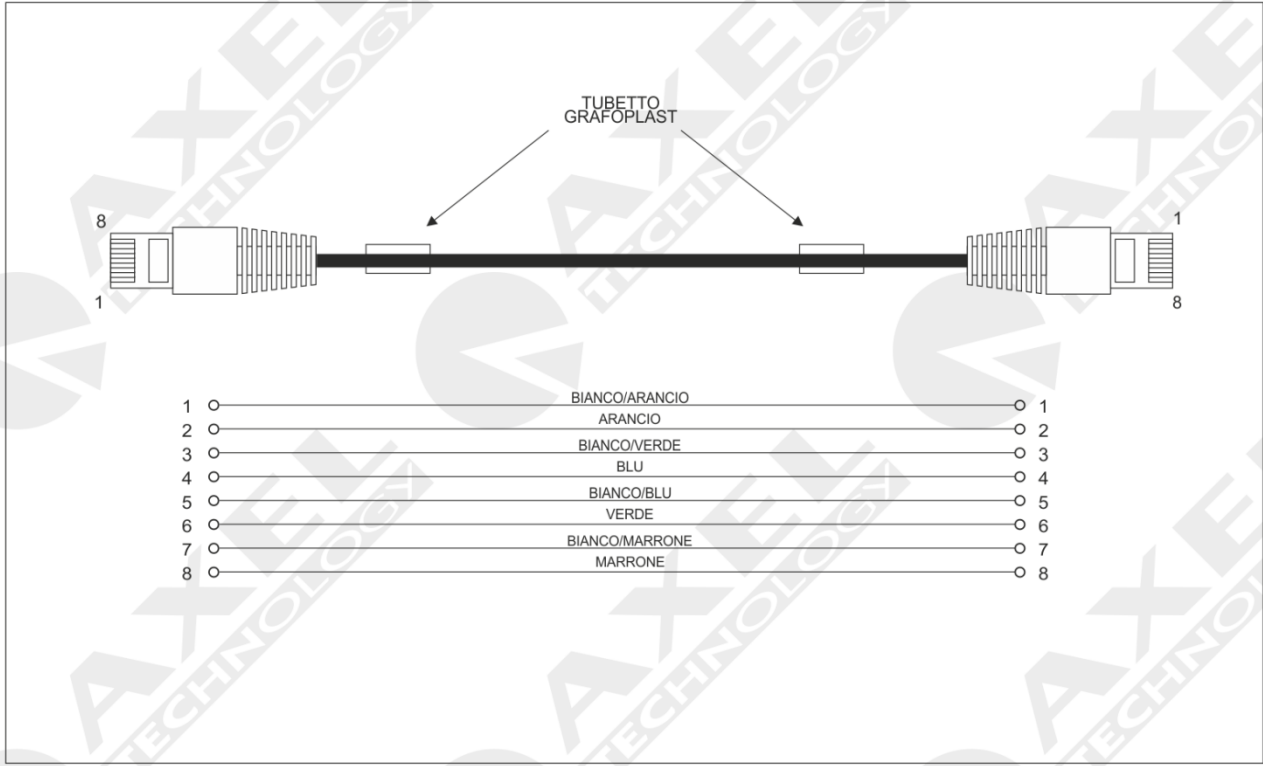


13.2 APPENDIX B - SERIAL CONNECTION E PINOUT



A standard Pin-to-Pin serial cable is required for the PC connection, not a CROSSOVER one. For a correct connection the cable must not be more than 20 m long. Ports 2 and 3 use only the Tx, Rx and GND for the PC connection while port 1 also has the DTR (Data Terminal Ready) for modem connection. The port connection speed must coincide with the speed of the port of the Falcon XT and of the PC's serial port.

13.3 APPENDIX C - ETHERNET/LAN CONNECTIONS



13.4 APPENDIX D - USB A/B CONNECTION



13.5 APPENDIX E - GPIO PORT

The 15 pin HD SubD **GPIO** connector on the back of the Falcon XT features four General Purpose inputs and four General Purpose binary outputs. The inputs are polarised Optocoupler inputs, while the outputs are Open Collector outputs. They can be used to send commands to the device and to carry out specific functions. The inputs feature polarized photo couplers on each input and a 150 Ohm protection resistor is always installed in series inside. The maximum current that can circulate on each photo coupler is 20mA. The voltage supplied between pin 9 and pin 1 is +5 V dc non-stabilised.

14 TECHNICAL SPECIFICATION – STREAMER MAX

PARAMETER	DESCRIPTION
Transport protocols	UDP raw, UDP/IP, TCP/IP, HTTP, RTP.
Trasmission/Reception protocols and available bitrates	<p>Linear WAV: 16 Bits PCM linear</p> <p>OGG VORBIS: Bitrate in kbit/sec (64, 80, 96, 112, 128,160,192) - CBR Quality: 0(Best),1,2,3,4,5(Default),6,7,8,9(Worst) -VBR</p> <p>MPEG1-L3 (MP3) (*optional) Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128,160,192) - CBR Mode:Stereo, Joint Stereo, Dual Channel, Mono,Auto</p> <p>MPEG1-L2 (MP2) (*optional) Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128,160,192) - CBR Mode:Stereo, Joint Stereo, Dual Channel, Mono,Auto</p> <p>AAC (*optional) Bitrate in kbit/sec (32, 40, 48, 56, 64, 80, 96, 112, 128,160,192) - CBR</p> <p>HEAAC, HEAACv2 (*optional) Bitrate in kbit/sec (24, 32, 40, 48, 56, 64) - CBR</p>
Sampling Rate	32 kHz/44.1kHz/48 kHz (Full-Duplex Mode 48kHz only)
I/O interfaces	<p>1x Power supply interno con alimentazione universale 100-240Vac</p> <p>1x Slot SD Card o SDHC</p> <p>1x RJ45 full duplex IEEE 802.3 10/100Mb/s, Wi-Fi*, 3G*</p> <p>2x USB 2.0 FullSpeed</p> <p>2x GPIInputs via Optocoupler</p> <p>2x GPOut via Optocoupled open collector output</p> <p>2x XLR Input: Analog / Digital (Aes/Ebu)</p> <p>2x XLR Output: Analog / Digital (Aes/Ebu)</p> <p>1x Graphic Display LCD (Elite Version Only)</p> <p>1x Encoder with Enter button (Elite Version Only)</p> <p>1x Headphone jack Output (Elite Version Only)</p> <p>1x front USB 2.0 FullSpeed (Elite Version Only)</p>
Bandwidth	20Hz – 24kHz (Analogic Sampling Rate 48Khz)
Signal-to-noise (S/N)	110 dB A-weighted (90dB nominal @ 0.0dBu sensitivity)
CrossTalk	>80 dB @ 10kHz
THD	0.005% @ 1kHz
Analog input impedance	10KOhm
Analog input sensibility	-12.0dBu to +12.0dBu

Analog max input/output	+20dBu
Digital input impedance	110Ω
Digital Input Rates	32-96 kHz with sample rate conversion and jitter correction
Input Digital Sensitivity	-30.0 dBFs, -5dBFs
Digital Output Rates	48kHz Internal or 32-48kHz Synch to AesEbu input
Digital nominal input	0.0 dBFs - -25.0 dBFs
Dimensions	217x200x44 mm (b x w x h)
Weight	2 Kg (3 Kg with batteries)

15 WEEE DIRECTIVE – INFORMATIVA RAEE



In line with EU Directive 2012/19/UE 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 2012/19/UE 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 2012/19/UE 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 2012/19/UE 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 2012/19/UE 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 2012/19/UE 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 2012/19/UE 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 indsamingssted, så det kan genbruges.

I linje med EU-direktiv 2012/19/UE 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 (2012/19/UE) 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 2012/19/UE 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. 2012/19/UE o odpadních elektrických a elektronických zařízeních (OEEZ) se tento elektrický výrobek nesmí likvidovat jako netříděný komunální odpad. Při likvidaci tento výrobek vraťte prodejci nebo ho odevzdejte k recyklaci do komunálního sběrného zařízení.

Vastavalt EL direktiivile 2012/19/UE, 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 2012/19/UE o odpade z elektrických a elektronických zariadení (OEEZ) sa toto elektrické zariadenie nesmie odstraňovať ako netriedený komunálny odpad. Výrobok odstraňte jeho vrátením v mieste nákupu alebo odovzdaním v miestnom zbernom zariadení na recyklovanie.

16 GUARANTEE

The product is covered by a one-year ex-works manufacturer's guarantee. Do not open the device. The guarantee will not be valid if the guarantee seals are broken. The manufacturer cannot be held liable for damages of any type deriving from or relating to incorrect use of the product.

DECLARATION OF CONFORMITY

Manufacturer: AXEL TECHNOLOGY S.r.l.

Company title: VIA C. DI SABBIUNO 6/F - 40011 ANZOLA EMILIA - BOLOGNA ITALY

DECLARES UNDER ITS OWN RESPONSIBILITY THAT THE FOLLOWING EQUIPMENT

MODEL: **STREAMER MAX MKII**

DESCRIPTION: **Bidirectional Encoder/Decoder for streaming audio over IP. Formats: PCM, MP3, Vorbis, Shoutcast, Icecast.**

IS COMPLIANT

To the requirements and all characteristics enacted from Community Directive:

1. **2014/30/UE “EMC” Electromagnetic Compatibility**
2. **2014/35/UE “LDV” Low Voltage Directive**
3. **2011/65/UE “on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS 2)”**

and following Harmonized Standards:

- ✓ **EN 55103-1:2009** Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Emissions.
- ✓ **EN 55103-2:2009** Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Immunity.
- ✓ **EN 60065:2016** Audio, video and similar electronic apparatus. Safety requirements.
- ✓ **EN 61000-6-1:2007** Electromagnetic compatibility. Generic standards. Immunity for residential, commercial and light-industrial environments.
- ✓ **EN 61000-6-3:2007+A1:2011** Electromagnetic compatibility. Generic standards. Emission standard for residential, commercial and light-industrial environments.
- ✓ **EN 60950-1:2006+A2:2013** Information technology equipment. Safety. General requirements.
- ✓ **EN 55024:2010** Information technology equipment. Immunity characteristics. Limits and methods of measurement.
- ✓ **EN 50581:2012** - Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.
- ✓ **EN 55032:2015** - Electromagnetic compatibility of multimedia equipment. Emission Requirements.
- ✓ **EN 55024:2010+A1:2015** - Information technology equipment. Immunity characteristics. Limits and methods of measurement.

Remark: The present product must be installed as showed in the installation manual provided together with the equipment and used at the sole scope for wich it has been manufactured.

Anzola Emilia (BO) Italy, 02/02/2017

C.E.O.
Giuseppe Vaccari



DECLARATION OF CONFORMITY

Manufacturer: AXEL TECHNOLOGY S.r.l.

Company title: VIA C. DI SABBIUNO 6/F - 40011 ANZOLA EMILIA - BOLOGNA ITALY

DECLARES UNDER ITS OWN RESPONSIBILITY THAT THE FOLLOWING EQUIPMENT

MODEL: **STREAMER MAX MKII ELITE**

DESCRIPTION: **Bidirectional Encoder/Decoder for streaming audio over IP. Graphic display and encoder. Formats: PCM, MP3, Vorbis, Shoutcast, Icecast.**

IS COMPLIANT

To the requirements and all characteristics enacted from Community Directive:

1. **2014/30/UE “EMC” Electromagnetic Compatibility**
2. **2014/35/UE “LDV” Low Voltage Directive**
3. **2011/65/UE “on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS 2)”**

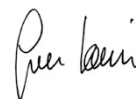
and following Harmonized Standards:

- √ **EN 55103-1:2009** Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Emissions.
- √ **EN 55103-2:2009** Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Immunity.
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- √ **EN 61000-6-3:2007+A1:2011** Electromagnetic compatibility. Generic standards. Emission standard for residential, commercial and light-industrial environments.
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Remark: The present product must be installed as showed in the installation manual provided together with the equipment and used at the sole scope for wich it has been manufactured.

Anzola Emilia (BO) Italy, 02/02/2017

C.E.O.
Giuseppe Vaccari



DICHIARAZIONE DI CONFORMITA'

Nome Fabbricante: AXEL TECHNOLOGY S.r.l.

Ragione Sociale: VIA C. DI SABBIUNO 6/F - 40011 ANZOLA EMILIA - BOLOGNA ITALY

DICHIARA SOTTO LA PROPRIA RESPONSABILITÀ CHE IL PRODOTTO

MODELLO: **STREAMER MAX MKII**

DESCRIZIONE: **Encoder/Decoder simultaneo per streaming audio su IP. Formati: PCM, MP3, Vorbis, Shoutcast e Icecast2.**

RISPETTA

i requisiti essenziali e tutte le caratteristiche richiamate dalla Direttiva comunitaria:

1. **2014/30/UE "EMC" Compatibilità Elettromagnetica**
2. **2014/35/UE "LDV" Bassa Tensione**
3. **2011/65/UE "sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (RoHS 2)"**

e alle seguenti normative tecniche armonizzate:

- ✓ **EN 55103-1:2009** Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 1: Emissione
- ✓ **EN 55103-2:2009** Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 2: Immunità
- ✓ **EN 60065:2016** Apparecchi audio, video e apparecchi elettronici simili Requisiti di sicurezza.
- ✓ **EN 61000-6-1:2007** – EMC – Immunità per ambienti residenziali, commerciali e industria leggera.
- ✓ **EN 61000-6-3:2007+A1:2011** – EMC – Emissione per ambienti residenziali, commerciali e industria leggera.
- ✓ **EN 60950-1:2006+A2:2013** – Sicurezza degli apparati ITE (Information Technology Equipment)
- ✓ **EN 55024:2010** Apparecchiature per la tecnologia dell'informazione - Caratteristiche di immunità Limiti e metodi di misura.
- ✓ **EN 50581:2012** - Documentazione tecnica per la valutazione dei prodotti elettrici ed elettronici in relazione alla restrizione delle sostanze pericolose.
- ✓ **EN 55032:2015** - Compatibilità elettromagnetica di apparecchiature multimediali - Requisiti di emissione.
- ✓ **EN 55024:2010+A1:2015** - Apparecchiature per la tecnologia dell'informazione - Caratteristiche di immunità - Limiti e metodi di misura.

Nota: il presente prodotto deve essere installato come previsto dal manuale d'uso fornito a corredo dell'apparato ed utilizzato ai fini del servizio per il quale è stato fabbricato e destinato.

Anzola Emilia (BO) Italy, 02/02/2017

Presidente del C.d.A.
Giuseppe Vaccari



DICHIARAZIONE DI CONFORMITA'

Nome Fabbricante: AXEL TECHNOLOGY S.r.l.

Ragione Sociale: VIA C. DI SABBIUNO 6/F - 40011 ANZOLA EMILIA - BOLOGNA ITALY

DICHIARA SOTTO LA PROPRIA RESPONSABILITÀ CHE IL PRODOTTO

MODELLO: **STREAMER MAX MKII ELITE**

DESCRIZIONE: **Encoder/Decoder simultaneo per streaming audio su IP. Formati: PCM, MP3, Vorbis, Shoutcast e Icecast2.**

RISPETTA

i requisiti essenziali e tutte le caratteristiche richiamate dalla Direttiva comunitaria:

1. **2014/30/UE "EMC" Compatibilità Elettromagnetica**
2. **2014/35/UE "LDV" Bassa Tensione**
3. **2011/65/UE "sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche (RoHS 2)"**

e alle seguenti normative tecniche armonizzate:

- √ **EN 55103-1:2009** Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 1: Emissione
- √ **EN 55103-2:2009** Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 2: Immunità
- √ **EN 60065:2016** Apparecchi audio, video e apparecchi elettronici simili Requisiti di sicurezza.
- √ **EN 61000-6-1:2007** – EMC – Immunità per ambienti residenziali, commerciali e industria leggera.
- √ **EN 61000-6-3:2007+A1:2011** – EMC – Emissione per ambienti residenziali, commerciali e industria leggera.
- √ **EN 60950-1:2006+A2:2013** – Sicurezza degli apparati ITE (Information Technology Equipment)
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Nota: il presente prodotto deve essere installato come previsto dal manuale d'uso fornito a corredo dell'apparato ed utilizzato ai fini del servizio per il quale è stato fabbricato e destinato.

Anzola Emilia (BO) Italy, 02/02/2017

Presidente del C.d.A.
Giuseppe Vaccari

