ECLER

WPNETTOUCH

DIGITALE STEUERUNG

Berührungsempfindliches EclerNet Bedienpanel

BEDIENUNGSANLEITUNG

INHALTSVERZEICHNIS

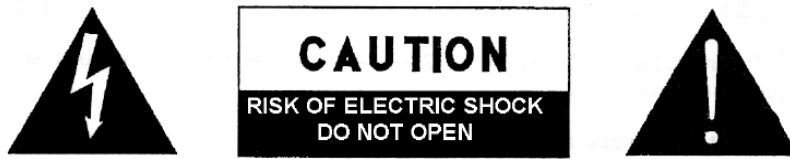# 1 WICHTIGER HINWEIS

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: SHOCK HAZARD - DO NOT OPEN
AVIS: RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR

Das Blitzsymbol mit Pfeil im gleichseitigen Dreieck soll den Benutzer vor nicht isolierter, gefährlicher Spannung im Gerät warnen, die hoch genug ist, um einem Menschen einen Stromschlag zu versetzen.

Das Ausrufezeichen im gleichseitigen Dreieck soll den Benutzer auf wichtige Informationen in den mitgelieferten Unterlagen zum Gebrauch und zur Wartung des Geräts hinweisen.

WARNUNG (falls zutreffend): Die mit dem Symbol " ⚡ " gekennzeichneten Anschlüsse können unter Spannung stehen, die hoch genug ist, dass die Gefahr eines Stromschlags besteht. Die externe Verkabelung dieser Anschlüsse muss von qualifiziertem Fachpersonal vorgenommen werden; andernfalls wird der Einsatz anschlussfertiger Leitungen empfohlen.

WARNUNG: Um Stromschlag oder Brandgefahr zu vermeiden, setzen Sie das Gerät niemals Regen oder Feuchtigkeit aus.

WARNUNG: Gerät der Schutzklasse I, muss über Schutzkontakt-Stecker angeschlossen werden.

2 WICHTIGE SICHERHEITSHINWEISE

1. Lesen Sie diese Anweisung sorgfältig durch.
2. Bewahren Sie diese Anweisung auf.
3. Beachten Sie alle Warnhinweise.
4. Befolgen Sie alle Anweisungen.
5. Benutzen Sie das Gerät niemals in der Nähe von Wasser.
6. Reinigen Sie das Gerät nur mit einem trockenen Tuch.
7. Blockieren Sie die Lüftungsöffnungen nicht. Installieren Sie das Gerät nach den Anweisungen des Herstellers.

8. Installieren Sie das Gerät nicht in der Nähe von Wärmequellen wie Heizkörpern, Öfen oder sonstigen Geräten, die Wärme erzeugen, einschliesslich Verstärkern.

9. Entfernen Sie niemals die Schutzvorrichtung des polarisierten oder geerdeten Stromkabels. Ein polarisiertes Kabel hat zwei Stifte, wovon einer breiter ist als der andere. Ein geerdeter Stecker hat zwei Stifte und einen Erdungskontakt. Dieser dritte Stift dient Ihrer Sicherheit. Sollte das mitgelieferte Kabel nicht in Ihre Steckdose passen, so wenden Sie sich bitte an einen Elektriker, damit dieser die veraltete Steckdose austauscht.

10. Sorgen Sie dafür, dass das Stromkabel nicht gequetscht wird, vor allem im Bereich der Stecker, der Buchsen und an der Stelle, an der das Kabel aus dem Gerät austritt.

11. Verwenden Sie nur vom Hersteller empfohlenes Zubehör.

12. Trennen Sie das Gerät vom Netz bei Gewitter oder wenn es über einen längeren Zeitraum nicht verwendet wird.

13. Setzen Sie sich bei notwendigen Reparaturen immer mit einem qualifizierten Kundendienst in Verbindung. Eine Reparatur ist erforderlich, wenn das Gerät nicht normal funktioniert oder aus irgendeinem Grund beschädigt wurde, z.B. bei Schäden am Kabel oder Stecker, wenn Flüssigkeit über dem Gerät ausgeschüttet wurde oder Fremdkörper ins Geräteinnere gelangt sind, oder wenn das Gerät dem Regen ausgesetzt war oder heruntergefallen ist.

14. Trennung vom Stromnetz: Durch die Abschaltung mit dem Schalter POWER werden alle Funktionen und Anzeigen des Geräts außer Betrieb gesetzt. Für eine vollständige Trennung vom Netz ist jedoch das Netzkabel aus seiner Anschlussbuchse zu ziehen. Diese muss daher immer leicht zugänglich sein.

15. Das Gerät ist über das Stromversorgungskabel an eine Schutzkontakt-Steckdose anzuschliessen.

16. Ein Teil der Produktbeschriftung befindet sich im Sockel.

17. Dieses Gerät darf keinerlei Tropf- oder Spritzwasser ausgesetzt werden; es dürfen auch keinerlei Gefässe darauf abgestellt werden, die Flüssigkeiten enthalten, z.B. Krüge.

18. Dieses Produkt ist nur für den Innenbereich geeignet.

WARNUNG: Dieses Produkt darf unter keinen Umständen als normaler Hausmüll entsorgt werden. Entsorgen Sie es bitte bei der nächstgelegenen Sammelstelle für Elektro- und Elektronikmüll.

NEEC AUDIO BARCELONA, S.L lehnt jede Verantwortung für Schäden ab, die Personen, Tieren oder Gegenständen aufgrund der Nichtbeachtung der vorstehenden Warnhinweise zugefügt werden könnten.

3   WICHTIGER HINWEIS

Wir bedanken uns für das Vertrauen, das Sie mit der Wahl unseres **berührungsempfindlichen Bedienpanels EclerNet WPNETTOUCH** in uns gesetzt haben.

Um eine optimale Betriebsfähigkeit und Leistung zu erzielen, ist es **SEHR WICHTIG**, dass Sie vor dem Anschluss des Geräts die in dieser Anleitung enthaltenen Hinweise aufmerksam durchlesen und berücksichtigen.

Für ein optimales Funktionieren des Geräts empfehlen wir Ihnen, die Instandhaltung ausschliesslich von unseren autorisierten technischen Servicepartnern durchführen zu lassen.

Für alle ECLER-Produkte gilt eine Garantie. Die Gültigkeitsdauer und die Bedingungen finden Sie unter www.ecler.com oder auf der dem Gerät beiliegenden Garantiekarte.

4   EINFÜHRUNG

WPNETTOUCH ist ein Gerät der EclerNet-Familie, das zur Steuerung eines oder mehrerer vernetzter EclerNet-Geräte programmiert werden kann. Es kann sogar zur Steuerung einer kompletten Anlage dienen, also eines Projekts, in dem eine Vielzahl unterschiedlicher EclerNet-Geräte enthalten sind: digitale Matrizen MIMO4040DN, MIMO88, MIMO88SG, MIMO1212SG, digitale Audio-Manager (Multifunktions-Endstufen) der NXA-Reihe, DUO-NET PLAYER usw. Das Gerät ist vollständig programmierbar über die Anwendung EclerNet Manager *(*)*.

(*) Nähere Informationen hierzu finden Sie im Handbuch der Anwendung EclerNet Manager unter www.ecler.com. Die Anwendung EclerNet Manager steht Ihnen unter www.ecler.com zum Herunterladen zur Verfügung.

Das WPNETTOUCH kann mithilfe der mitgelieferten Halterung VESA 75 oder einer beliebigen mit VESA75 kompatiblen Halterung an der Wand befestigt werden.

Es verfügt über einen kapazitiven 10" Touchscreen zur Anzeige der über die Anwendung EclerNet Manager programmierten grafischen Bedienfelder (UCPs), die der Endanwender zur Steuerung der Anlage nutzt.

1. 10.1" IPS-Display, Auflösung 1280x800 Pixel
2. Seitenverhältnis 16:9
3. Kapazitives Multitouch-Panel
4. Kompatibel mit PoE-Versorgung
5. Kompatibel mit externer Stromversorgung (externes Universalnetzteil + 1 Satz AC Multi-Stecker im Lieferumfang enthalten)
6. Ethernet-Schnittstelle Base-Tx 10/100Mb

5 EINBAU UND ANSCHLÜSSE

5.1 Einbau

Das WPNETTOUCH ist sowohl zur Oberflächenmontage als auch als Tischgerät geeignet:

- Oberflächenmontage: Das Produkt wird mit einer Wandhalterung VESA75 geliefert. Diese besteht aus zwei Teilen: einer Metallplatte, die mithilfe der 4 mitgelieferten Schrauben an der Rückseite des WPNETTOUCH befestigt wird, und einer Metallplatte, die an die Wand oder an die jeweilige Oberfläche kommt. Sobald beide Platten sicher auf ihrem jeweiligen Untergrund montiert wurden, kann das Gerät installiert werden, indem die Platten miteinander verbunden und mit der mitgelieferten Sicherheitsschraube befestigt werden. Das passende Werkzeug hierzu ist ebenfalls im Lieferumfang enthalten.
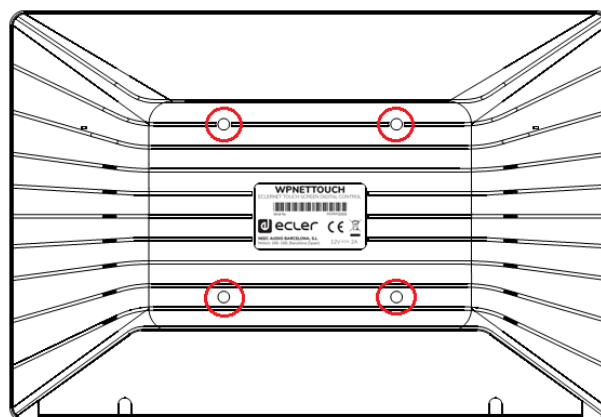
Anmerkung: Der VESA75-Standard ermöglicht die Montage des WPNETTOUCH auch mit VESA75-Halterungen oder -Ständern anderer Hersteller.

- Auftisch-Montage: Das Gerät wird mit einer stabförmigen Halterung geliefert, die nach Entfernen der mit 2 Schrauben befestigten Abdeckung der Anschlüsse in ein Gewinde an der Rückseite des WPNETTOUCH eingeschraubt werden kann. Mithilfe der so befestigten Stabhalterung kann das WPNETTOUCH dann aufrecht stehend auf einer Tischoberfläche gehalten werden.

5.2 Anschlüsse

Das WPNETTOUCH hat 2 Anschlussbuchsen für die Verbindung mit EclerNet. Beide befinden sich hinter der Kunststoff-Abdeckung der Anschlüsse an der Geräterückseite und sind mit 2 Schrauben an der Rückwand des WPNETTOUCH befestigt:

- DC-Versorgung: Runder Steckverbinder für den Anschluss an das mitgelieferte Universalnetzteil, 12 VCC, 2A
- Ethernet-Port: RJ45-Anschluss der Netzwerk-Kommunikations-Schnittstelle des Geräts, auch kompatibel mit DC-Versorgung PoE, sofern der Netzwerk-Switch PoE (Power over Ethernet) bereitstellen kann. Dieser kann zur direkten und ausschliesslichen Steuerung eines einzelnen EclerNet-Geräts direkt (Punkt zu Punkt) mit diesem Gerät verbunden werden, oder aber mit einem Ethernet-Switch-Port eines Netzwerks, an das alle übrigen EclerNet-Geräte der Anlage angeschlossen sind. Als Anschlusskabel kann ein Standard- oder ein Kreuzkabel der Kategorie CAT5 oder höher verwendet werden.

6 FUNKTIONSWEISE

Über die Anwendung EclerNet Manager können Fernbedienungs-Panels für das System erstellt werden (UCPs), die zur Steuerung eines oder mehrerer Geräte vom Typ MIMO4040DN, MIMO88, MIMO88SG, MIMO1212SG, NXA, DUO-NET PLAYER usw. in einer vernetzten Anlage dienen. Jedes Panel kann aus einer oder mehreren Seiten bestehen, jeweils mit Graphiken, Text, Lautstärkereglern, Bedientasten, VU-Metern, LED-Anzeigen usw. Auf diese Weise verfügt jeder Remote-Anwender über sein eigenes, seinen Bedürfnissen und Nutzerrechten entsprechendes Bedienpanel, so dass in einem System sowohl ganz einfache als auch wesentlich komplexere Bedienpanels mit höheren Berechtigungsstufen existieren können.

Nachdem die zu einem EclerNet-Projekt gehörenden UCPs erstellt wurden, benötigt das Netzwerk einen Webserver für die potenziellen Web-Clients, die die Anlage über die UCPs steuern werden, die sie vom Web-Server abrufen können und die lokal visualisiert und bearbeitet werden. Als Webserver kann eines der folgenden Geräte dienen:

- Ein WPNETTOUCH, welches das zuvor über die Anwendung EclerNet Manager erstellte EclerNet-Projekt ausführt
- Ein WPmSCREEN, der das zuvor über die Anwendung EclerNet Manager erstellte EclerNet-Projekt ausführt
- Eine Matrix MIMO4040DN, welche das zuvor über die Anwendung EclerNet Manager erstellte EclerNet-Projekt ausführt (in der Tat enthält die MIMO4040DN in ihrem Prozessor Webserver-Funktionen für Projekte und UCPs!)
- Ein PC mit Windows®-Betriebssystem, der das im Deploy-Modus erstellte EclerNet Manager-Projekt ausführt.

Anmerkung: In einem Netzwerk kann immer nur eines dieser Geräte, die die Anwendung EclerNet Manager sowie das Projekt selbst ausführen, existieren, __niemals mehrere Geräte gleichzeitig__, denn diese würden sich gegenseitig "bekämpfen" und alle würden versuchen, die Kontrolle über die im Projekt enthaltenen Hardware-Elemente (MIMO4040DN, MIMO88, NXA usw.) zu übernehmen.

Web-Clients können folgende Gerätearten sein:

- Das Haupt-WPNETTOUCH oder WPmSCREEN (falls vorhanden), das als Web-Server fungiert, kann gleichzeitig sein eigener Web-Client sein.
- Zusätzliche WPNETTOUCH-/WPmSCREEN-Geräte, die als Web-Clients freigeschaltet wurden
- Der PC selbst (falls vorhanden), der als Web-Server arbeitet, kann gleichzeitig sein eigener Web-Client sein
- Rechner, Tablet-PCs und Ähnliches, die einen Internet-Browser ausführen (Internet Explorer, Google Chrome, Mozilla Firefox usw.)
- Geräte mit Android-Betriebssystem (Tablet-PCs, Smartphones), die die Anwendung Ecler UCP v2 ausführen
- Geräte mit Apple iOS (iPad, iPhone usw.), die die Anwendung Ecler UCP v2 ausführen.

Jedes dieser Geräte kann UCPs, die auf die IP-Adresse des Web-Servers zielen, abrufen und bedienen.

Unterschiedliche Web-Clients können gleichzeitig unterschiedliche UCPs laden und gleichzeitig das Projekt bedienen, wobei jeder einen Teil des Systems steuert.

Achtung: Nähere Informationen zur Programmierung der UCP-Panels und des WPNETTOUCH finden Sie in der Bedienungsanleitung Ihrer Anwendung EclerNet Manager unter www.ecler.com (Kapitel USER CONTROL PANELS (U.C.P.) und WPNETTOUCH DEVICE).

Anmerkung: Die Anwendung EclerNet Manager steht Ihnen unter www.ecler.com zur Verfügung.

7   LOKALE KONFIGURATION DES GERÄTS

Auf die Einstellungen und Konfigurations-Menüs des WPNETTOUCH können Sie lokal vom berührungsempfindlichen Display des Geräts aus zugreifen. Auf die gleichen Konfigurationen kann auch per Fernbedienung zugegriffen werden, wenn das Display von einem entfernten Rechner aus gesteuert wird, der die Anwendung EclerNet Manager ausführt.

Der lokale Zugriff auf die Konfigurations-Menüs erfolgt durch Anklicken des SETUP-Symbols auf der Startseite des Geräts:

Es stehen folgende Konfigurationsmenüs zur Verfügung:
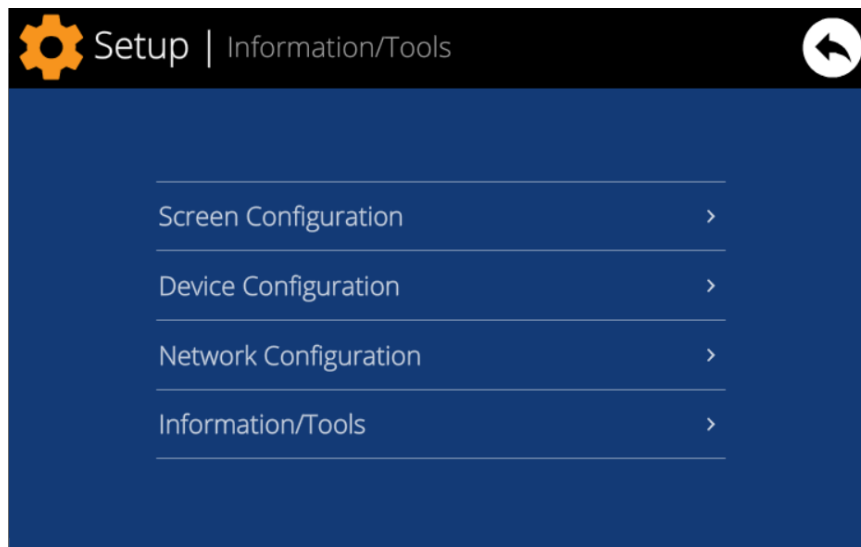
7.1 Konfigurations-Menü für das Display
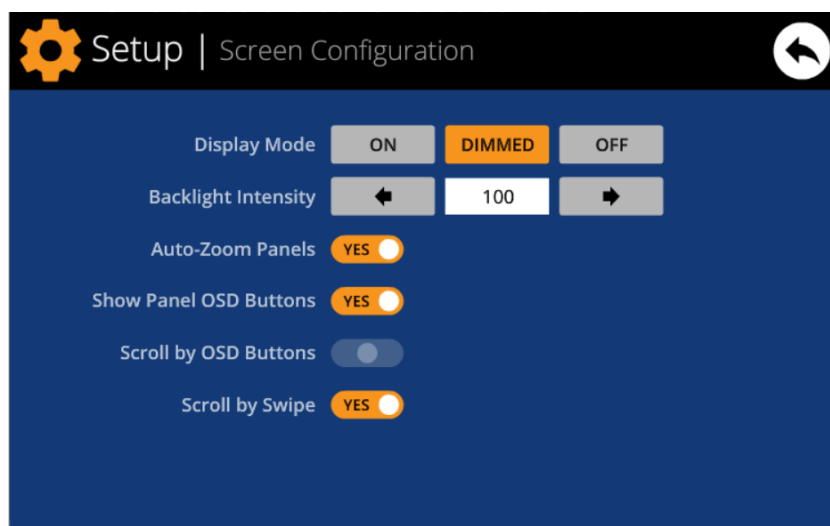
Dieses Menü ermöglicht die Einstellung verschiedener Parameter, die sich auf die dargestellten Elemente und auf die Bedienelemente des Geräte-Displays auswirken:

- **Display Mode**: Display-Dämpfung im Ruhezustand, nachdem 10 Sekunden lang keinerlei Benutzeraktivität auf dem Touch-Screen zu verzeichnen war. Folgende Betriebsarten (Display Mode) stehen zur Verfügung: ON (immer eingeschaltet), DIMMED und OFF (ausgeschaltet)
- **Backlight Intensity**: Helligkeit des Displays, wenn es sich nicht im Ruhezustand befindet
- **Auto-Zoom-Panels**: Bei Aktivierung wird die Grösse der UCPs automatisch auf den maximal sichtbaren Bereich angepasst, ganz egal, welche Auflösung ursprünglich in der Projektdatei des EclerNet Manager festgelegt wurde.

- **Show Panel OSD Buttons**: aktiviert/deaktiviert die überlagerte Anzeige der Navigationstasten in den Ecken der gezeigten UCPs. Die Tasten oben dienen zum Scrollen über die Seiten des Panels (nach links und rechts), und die Tasten unten greifen auf die Symbolleiste zu:

> *Achtung:* Auch wenn diese Tasten nicht sichtbar sind, können sie trotzdem aktiv sein, so dass durch Drücken der oberen Ecken das horizontale Scrollen zwischen den Seiten des Panels aktiviert wird, und durch Drücken der unteren Ecken erscheint die Symbolleiste. Dieser Aspekt muss beim Design der einzelnen UCP-Seiten im Hinblick auf die Anbringung der Bedienelemente (Tasten, Schieberegler, Knöpfe usw.) berücksichtigt werden. Die oberen Ecken sollten so frei wie möglich bleiben, wenn die OSD-Tasten zum Scrollen zwischen den Seiten benutzt werden sollen, und die unteren Ecken (Symbolleiste) müssen immer frei bleiben.

- **Scroll by OSD Buttons**: aktiviert/deaktiviert das Scrollen zwischen den Seiten mittels Drücken der oberen Ecken, auch wenn die OSD-Tasten nicht sichtbar sind.
- **Scroll by Swipe**: aktiviert/deaktiviert das Scrollen zwischen den Seiten mittels einer Wischbewegung nach links oder nach rechts (drücken und ziehen) auf dem Display.

Auf der Symbolleiste werden die neuen Zugriffe auf das horizontale Scrollen zwischen den Seiten eines Panels (nach links und nach rechts) angezeigt, der Zugriff auf die Startseite des Geräts (Symbol "HOME") und das Symbol zum Verlassen der Symbolleiste ("X"):
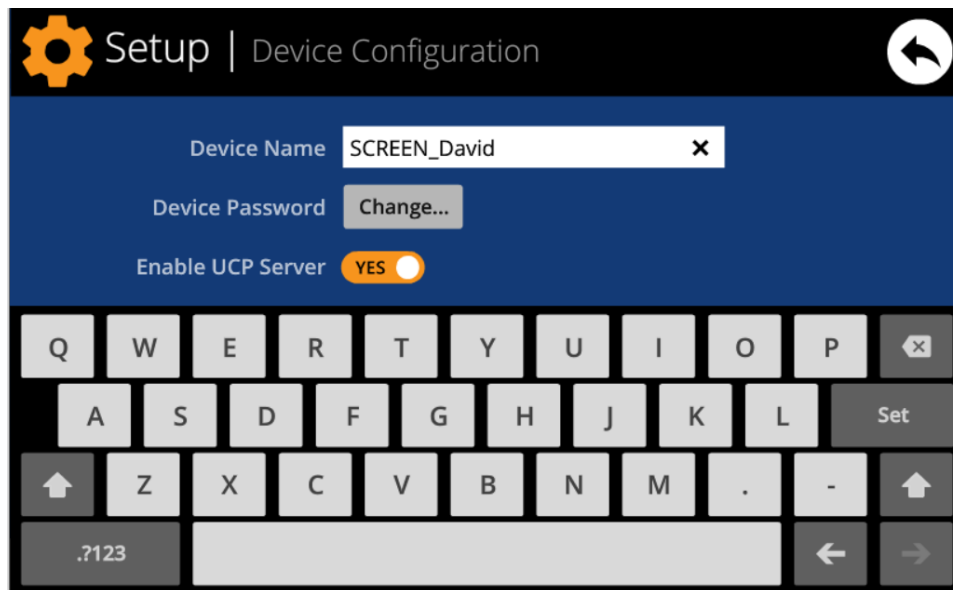
Dieses Menü ermöglicht die Einstellung der folgenden Geräteparameter:

- **Device Name:** Name des Geräts, der auf anderen WPNETTOUCH-/WPmSCREEN-Geräten sowie in der Anwendung EclerNet Manager angezeigt wird
- **Device Password:** Passwort zum Schutz des Geräts gegen die Änderung seiner grundlegenden Konfigurations-Parameter, erforderlich bei deren Aktivierung (aktiviert = Passwort-Feld darf nicht leer sein)
- **Enable UCP Server:** aktiviert/deaktiviert den integrierten UCP-Server des Geräts

  o **Enabled:** Das auf dem Gerät gespeicherte EclerNet-Projekt ("lokales Projekt") ist voll funktionsfähig, übernimmt die Kontrolle über die dazugehörigen Hardware-Elemente (MIMO4040DN, MIMO88, NXA usw.) und stellt die beinhalteten UCP-Bedientafeln den potenziellen UCP-Clients im Netzwerk zur Verfügung.

  o **Deaktiviert:** Das lokale EclerNet-Projekt wird deaktiviert und die Kontrolle über die beinhalteten Hardware-Elemente (MIMO4040DN, MIMO88, NXA usw.) wird freigegeben, folglich werden auch den Clients keine UCPs mehr zur Verfügung gestellt.

  Hinweis: In deaktiviertem Zustand könnte es dazu kommen, dass ein anderes Gerät oder ein PC, auf dem ein Projekt ausgeführt wird, welches alle oder einige der im lokalen Projekt des WPNETTOUCH vorhandenen Hardware-Komponenten enthält, die Kontrolle über diese übernimmt. **Es kann immer nur jeweils ein Gerät/Projekt die Kontrolle über ein Hardware-Element haben, d.h., bevor versucht wird, Hardware-**

Elemente von einem anderen Gerät aus zu steuern, müssen diese jeweils freigegeben werden.

- Über die Anwendung EclerNet Manager können vom Rechner kontrollierte Geräte durch die Erstellung eines neuen Projekts (File -> New Project) oder aber durch Trennung jedes einzelnen Geräts vom Netzwerk (rechte Maustaste -> Disconnect) dieser Kontrolle entzogen werden.
- Über ein WPNETTOUCH /WPmSCREEN können die von diesem kontrollierten Geräte durch Umschaltung der Option "Enable UCP Server" auf die Position "NO" freigegeben werden.

7.3   Netzwerk-Konfigurations-Menü
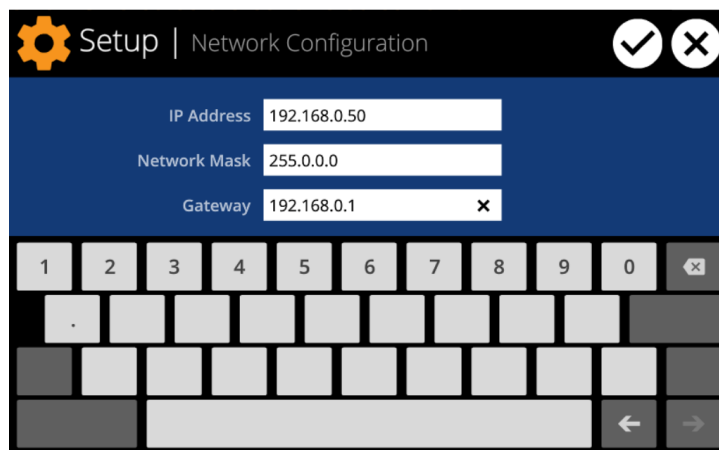
In diesem Menü können folgende Netzwerk-Verbindungsparameter des WPNETTOUCH geändert werden: IP-Adresse, Netzwerkmaske und Gateway.

Achtung: Weder das WPNETTOUCH noch irgendein anderes EclerNet-Gerät unterstützt das Protokoll zur dynamischen Zuweisung von IP-Adressen (Dynamic Host Configuration Protocol oder DHCP), so dass immer eine manuelle Zuweisung statischer Adressen erforderlich ist.

7.3.1   Werkseitig voreingestellte Netzwerkparameter

Die werksseitigen Standard-Netzwerkeinstellungen für kompatible Geräte mit EclerNet Manager sind folgende:

- IP: 192.168.0.100
- Mask: 255.255.255.0
- Gate: 192.168.0.1
- UDP Port: 2210
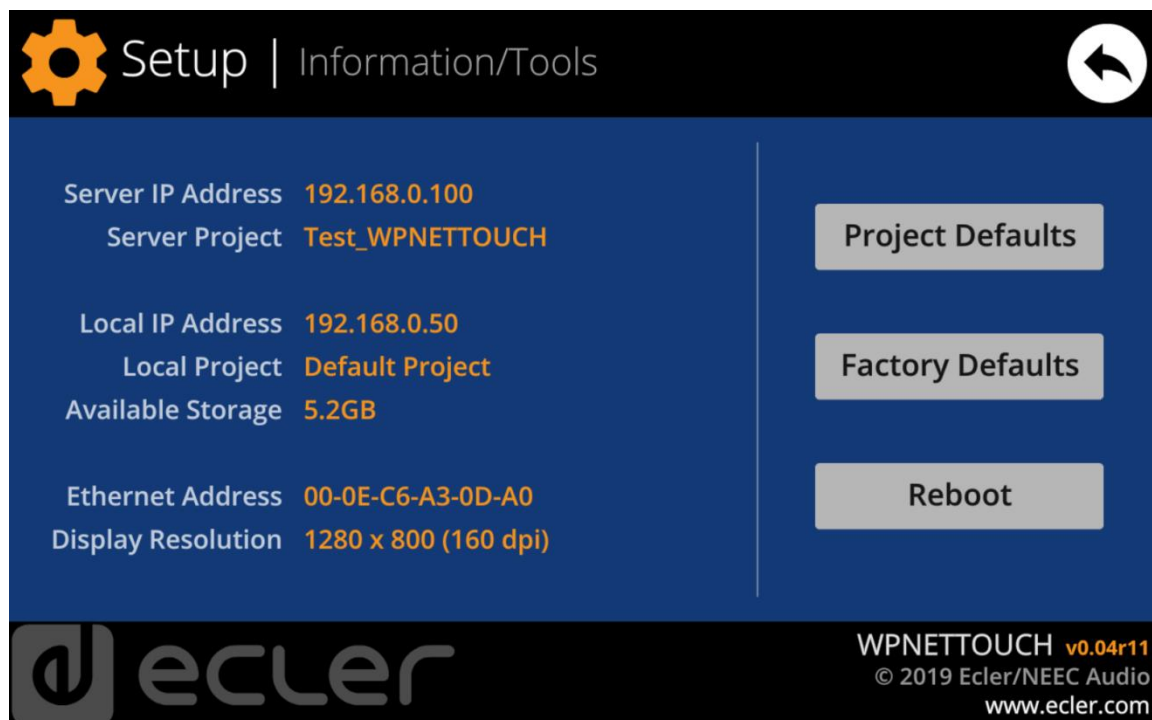
In diesem Menü erscheinen folgende Informationen:

- **Server IP Address**: IP-Adresse des UCP-Servers, an den das Gerät als UCP-Client angeschlossen ist. Ist das Gerät als Client an sich selbst angeschlossen, so zeigt es seine eigene IP-Adresse an (= Local IP Address)

- **Server Project**: Name des Projekts, das auf dem Server läuft, an den das Gerät als UCP-Client angeschlossen ist (des Projekts, das auf dem UCP-Server des Client läuft)

- **Local IP Address**: Die für das WPNETTOUCH konfigurierte IP-Adresse

- **Local Project**: Name des Projekts, das auf dem internen Speicher des WPNETTOUCH abgelegt ist. Dieses Projekt kann mithilfe der Software-Anwendung EclerNet Manager auf das WPNETTOUCH geladen werden.

- **Available Storage**: verfügbarer interner Speicherplatz zum Laden einer Projektdatei mit Daten und Graphiken der Benutzer-Bedienfelder

- **Ethernet Address**: MAC-Addresse der im WPNETTOUCH installierten NIC (Network Interface Card oder Netzwerkkarte)

- **Display resolution**: Auflösung des nativen Displays des IPS-Panels des Geräts (1280 x 800)

- **Firmware version**: wird in der Ecke unten rechts angezeigt (im Beispiel oben v0.04r11)

Daneben gibt es folgende Restore-/Reboot-Optionen:

- **Project Defaults:** Löscht nach vorheriger Warnung, dass dieser Vorgang irreversibel ist, das Projekt aus dem Speicher und ersetzt es durch ein leeres Projekt:

Project Defaults
Warning: this action will replace the current project with a default (blank) one, losing all the configuration and user data in the current project. Are you sure?

Ok   Cancel

- **Factory Defaults:** Löscht nach vorheriger Warnung, dass dieser Vorgang irreversibel ist, die gesamte Konfiguration sowie sämtliche Daten des Geräts und stellt die Standard-Werkseinstellungen wieder her:

Factory Defaults
Warning: this action will bring back this device to its factory defaults. This involves losing your current network configuration, general setup and current project data. Are you sure?

Ok   Cancel

- **Reboot:** Startet das Gerät neu:

Reboot
This action will reboot this device, losing network connection for a while and recovering normal performance after the reboot. Are you sure?

Ok   Cancel

8 ANSCHLUSS AN EINEN UCP-SERVER

Von der Startseite des Geräts aus gelangt man über das Anschluss-Symbol oben rechts auf die Anschluss-Seite:

Auf dieser Seite kann der UCP-Server gewählt werden, an den sich das Gerät als Client anschliessen soll. Als UCP-Server kann ein Rechner dienen oder eine Matrix MIMO4040DN (in der Tat hat diese einen UCP-Server in ihren Prozessor integriert!!), ein weiteres WPNETTOUCH/WPmSCREEN oder auch das WPNETTOUCH selbst. In jedem Fall hostet der UCP-Server ein EclerNet-Manager-Projekt, das er auch ausführt, und das eine Reihe von UCPs enthält, die aus der Ferne von jedwedem UCP-Client gesteuert werden können.

Die IP-Adresse des Server-Geräts kann mithilfe der auf dem Display erscheinenden Tastatur direkt eingegeben werden, oder man kann sie aus einer Liste möglicher, automatisch erkannter Server-Geräte auswählen. Der Zugriff auf diese Liste erfolgt durch Anklicken der grauen Taste mit dem Listen-Symbol rechts neben der Taste "Connect to...":
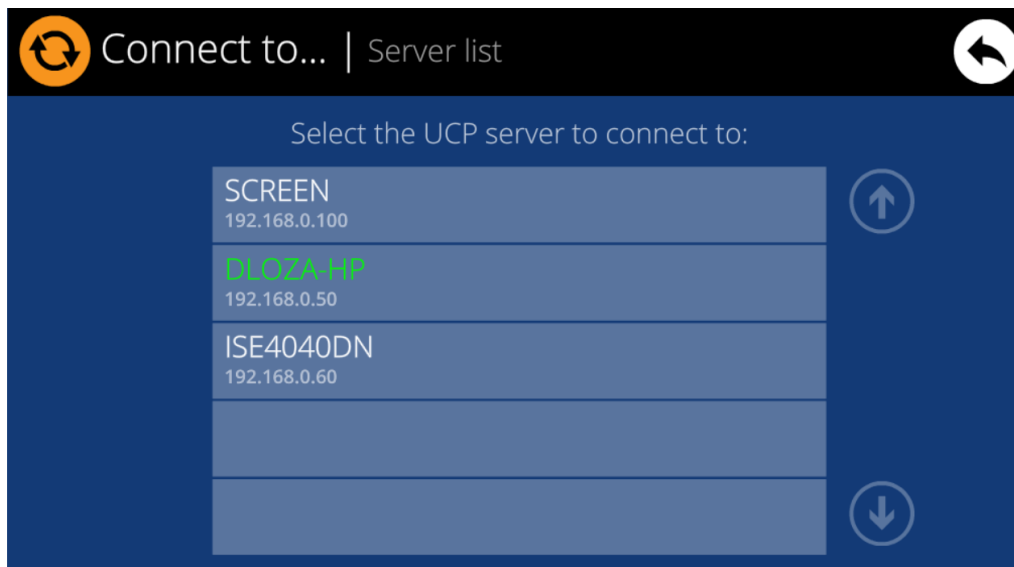
Achtung: Auf der Liste der erkannten Server-Geräte erscheint der Name des unter Kontrolle stehenden WPNETTOUCH in grün (übereinstimmend mit der lokalen IP-Adresse).

Nachdem auf die eine oder andere Art ein Server oder eine IP-Adresse ausgewählt wurde, wird durch Anklicken der Taste "Connect to..." die Auswahl bestätigt und die Verbindung mit dem Server aufgebaut. Nach erfolgreichem Aufbau der Verbindung erscheinen auf dem Display die UCPs, die der Server dem Client WPNETTOUCH zur Verfügung stellt:
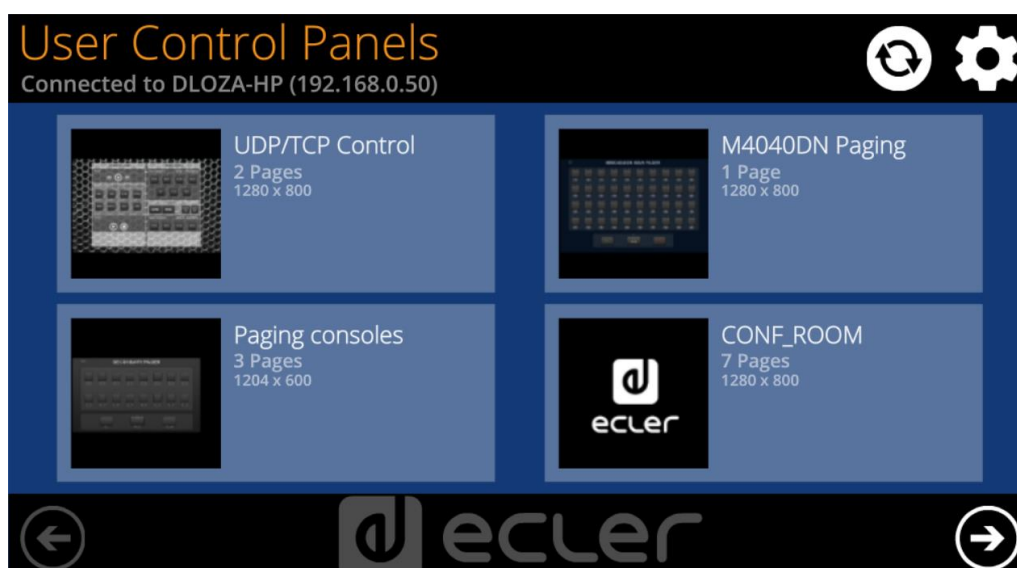
9 LIEFERUMFANG

- WPNETTOUCH
- Externes Universal-Netzteil mit AC-Mehrfachstecker
- Halterung für Wandmontage VESA75 + Schrauben + Sicherheitsschraube + Werkzeug
- Halterung für Auftisch-Montage in Stabform
- Kurze Bedienunsanleitung und Garantieschein

10 LISTE DER FUNKTIONEN

1. Multitouch-Display
2. Befestigungslöcher für Schrauben VESA75
3. Befestigungsloch für Stabhalterung zur Auftisch-Montage
4. Netzteilanschluss
5. Ethernet-Anschluss RJ45
6. Nicht benutzte Anschlüsse

11 FUNKTIONSDIAGRAMM
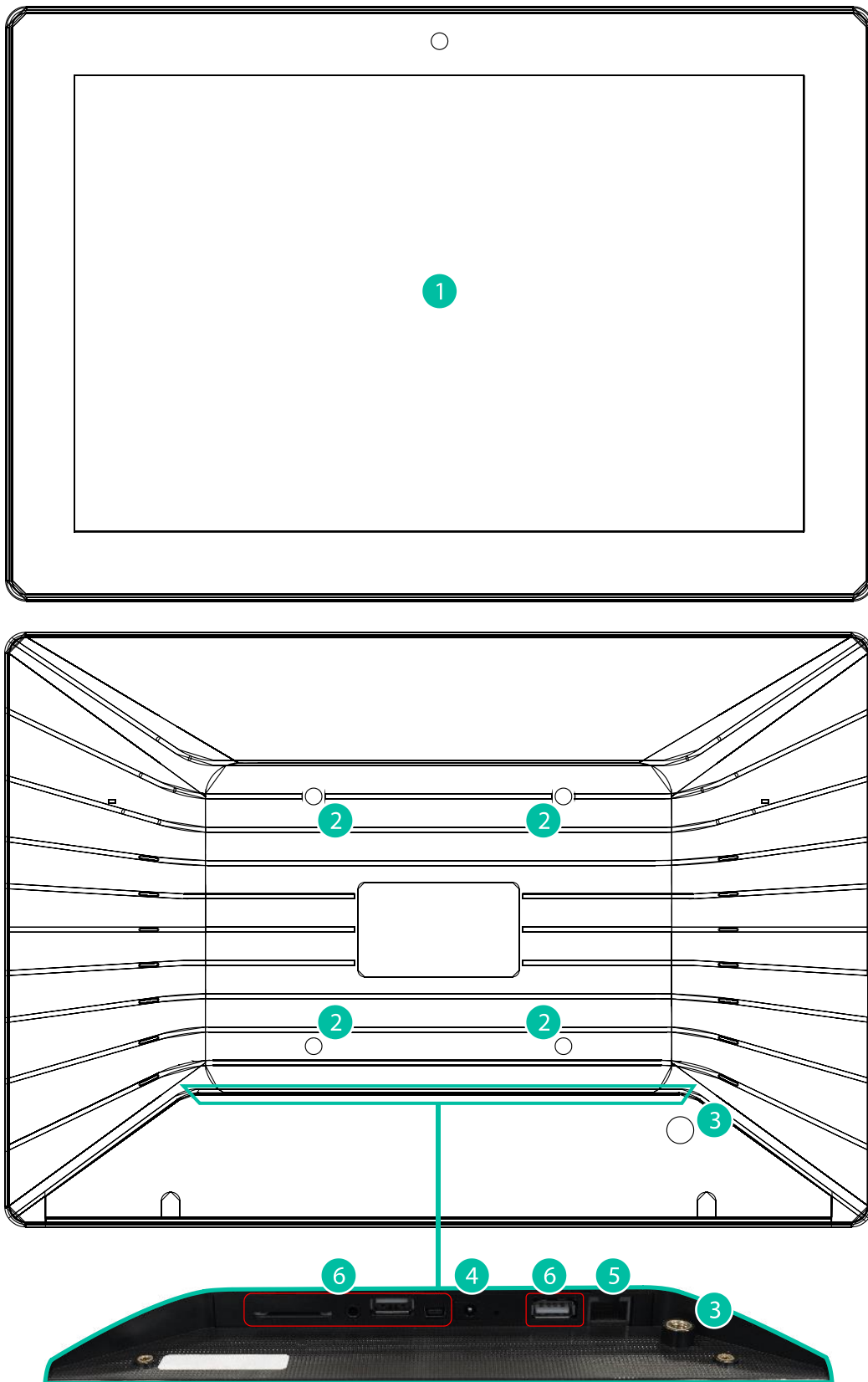
12 TECHNISCHE DATEN

System	
CPU	RK3128 quad core processor, clocked 1.6G
RAM	1GB
ROM	8GB
Screen	
Size	10,1" IPS
Resolution	1280x800
Contrast ratio	1300
Brightness	300cdm2
Screen scale / Display area	16:9 / 218x135mm
Backlight	LED
Touch-panel	Capacitive multi-touch
Network & Connectivity	
Ethernet	Supports PoE
Ethernet port	Ethernet Base-Tx 10/100Mb / 1GB CAT5e or better up to 100m.
Power	
External power supply voltage	12VDC
DC current (max)	350mA from 12V External Power Supply Voltage 125mA from PoE
Mains power consumption	6W
General	
Bracket mounting holes	VESA 75mm
Dimensions WxHxD	260x178x28 mm / 10.2"x7.0"x1.1"
Weight	700 gr / 1.54 lb.
Accessories included	
AC power adapter	100-240VAC 50-60Hz 12V / 2A, multi-plug
Mounting systems	VESA75 and desktop

TP-NET PROTOCOL

SOFTWARE

Third-Party NET

USER MANUAL

13 TP-NET PROTOCOL INTRODUCTION

The TP-NET protocol lets a client device (control device) get and/or set the values of several parameters of the **EclerNet compatible devices** (MIMO and MIMO SG series digital matrices, DUO-NET PLAYER, NXA digital audio manager series, NZA amplifier series, NPA amplifier series, etc.), like volumes, mutes, alarms, etc. It's as well available for **eMIMO1616 digital matrix, HUB series digital zoner, MIMO7272DN and MIMO4040CDN digital matrix**.

The communication with these digital audio devices can be established using Ethernet and the UDP/IP transport protocol, always by means of the **5800** UDP port.

A second option for this communication is using the RS-232 interface that some of these compatible devices do also have (MIMO series, DUO-NET PLAYER, NXA series, etc.). In this case, the serial connection must fulfil the following specifications:

- Baud rate: **57600** (fixed, no autonegotiation) for all the devices, except for DUO-NET PLAYER, eMIMO1616, HUB series and MIMO4040CDN, which use **115200** baud rate)
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: None

In case the Ecler device has an Euroblock connector for the RS-232 interface, the serial cable wiring, from the device's connector to a standard DB9 serial interface connector, must be the following:

WIRING RS232 – DB9	
RS232	**DB9**
Tx	Pin 2 (RxD)
Rx	Pin 3 (TxD)
Gnd	Pin 5 (Signal Gnd)

The protocol is simple and direct, making it easy to read, write and modify the generated code. It is based on messages with no begin and end delimiter: each message is self-delimited by the UDP packet size, which is defined with a maximum of **80 characters**. All the messages must be written in capital letters.

To let some control systems (like CRESTRON®, EXTRON®, AMX®, RTI®, VITY®, MEDIALON®, etc.) process the messages more easily, the EclerNet device adds the character **LF (0x0A)** to the end of each message. This way the client can buffer the

messages to process them, if it's required. The EclerNet device can also handle several messages received in a single message packet by using the **LF** delimiter.

The available messages are built with one or more fields separated with blank spaces (= blank space):

<div align="center">

<TYPE> [PARAM1] [PARAM2] [PARAM3] [PARAM4][LF]

</div>

The first field (**TYPE**) defines the **message type** and then, the required parameters for it (each kind of message requires a given number of parameters). The field **TYPE** can have these values:

- **SYSTEM**
- **GET**
- **SET**
- **INC**
- **DEC**
- **SUBSCRIBE**
- **UNSUBSCRIBE**
- **DATA**
- **ERROR**

At the end of this document you'll find all the available messages and their parameters for each model of the EclerNet compatible devices.

The **SYSTEM, GET, SET, INC, DEC, SUBSCRIBE** & **UNSUBSCRIBE** messages can be sent from the client to the EclerNet device. The **DATA** & **ERROR** messages can be sent from the device to the client. The only exception is the **SYSTEM PING** message, that is a **SYSTEM** type message that is sent from the EclerNet device when the initial message from the client to the device was **SYSTEM CONNECT PINGPONG.**

The communication (using UDP or RS-232) starts when a client sends the message **SYSTEM CONNECT** to the EclerNet device. As far as the UDP communication requires no connection (unlike the TCP), the EclerNet device stores this client's IP address, and then uses it as the destination IP address for the messages that it generates (**DATA** & **ERROR**). After receiving the **SYSTEM CONNECT** message, the device dumps its entire configuration using several consecutive **DATA** messages.

The communication can be terminated by two methods:

- **Manually:** when the client sends the **SYSTEM DISCONNECT** message**,** cancelling all the subscriptions and stopping the **DATA** & **ERROR** messages
- **Automatically:** in case the initial message was **SYSTEM CONNECT PINGPONG** and the client didn't get any **SYSTEM PONG** message in a period longer than 10 seconds (presuming a communication breakdown)

The **SET** messages don't have an automatic acknowledgement with a **DATA** message sent from the EclerNet device after it has processed the **SET** command. The client must update the values itself and must send the needed **GET** message if it requires confirmation from the device.

NOTES:

- The numerical values are always integer numbers without **+**, **–**, comma or dot symbols.
- **[PINGPONG]** is an optional parameter used to configure the device-client communication with a periodical check, to see whether the client or the device have terminated it. When configured this way, the device sends a **SYSTEM PING** once per second, and the client must answer with a **SYSTEM PONG** message. If anyone doesn't get these messages along a 10 seconds period, the communication will be considered terminated
- **<Input Channel>** & **<Output Channel>** are numerical values that identify an input or output channel of the EclerNet device:
- It can be within a [1..8] range for MIMO88 single units (8x8 matrix masters), and [1..16] for MIMO88 couples configured as 16x16 matrix masters
- It can be within a [1..8] range for MIMO88SG units
- It can be within a [1..12] range for MIMO1212SG units
- For the NPA series, <Output Channel> can be within a [1..2] range
- For the NXA and NZA series it can be within the [1..4] or [1..6] range, for 4 or 6 channel amplifiers
- It can be within a [1..16] range for eMIMO1616 units
- It can be within a [1...40] range for MIMO7272DN and MIMO4040CDN
- **<Preset Number>** is a numerical value that identifies one available Preset stored in the EclerNet device's memory:
- For the MIMO series it can be within the [1..99] range
- For the DUO-NET PLAYER it can be within the [1..20] range
- For the NPA series it can be within the [1..10] range
- For the NXA and NZA series it can be within the [1..5] range
- **<Level>**, **<Pre Vumeter Level>** y **<Post Vumeter Level>** are numerical values in the [0..100] range that define values in a scale equivalent to [-inf..0] dB

- **<GPI>** & **<GPO>** are numerical values within the [1..8] range for the MIMO88 configured as 8x8 matrix masters (single units), and [1..16] for MIMO88 couples configured as 16x16 matrix masters. For the NXA series GPI values can be within the [1..4] or [1..6] range, depending on model. For the MIMO7272DN and MIMO4040CDN GPI and GPO values can be within [1..8]
- **<GPI Value>** is a numerical value within the [0..100] range that indicates the value of an analogue GPI input. For a digital input only 0 or 100 are the possible values
- **<GPO Value>** is a numerical value within the [0..1] range: it can only be 0 or 1 (opened or closed GPO)
- **<Rate>** is a numerical value within the [1..10] range that sets the VU-meter refresh rate, or the number of times the vumeters' values are sent per second (by default = 3)
- **"<Device Name>"** is the device name inside double quotation marks, to allow for names with blank spaces
- **<Error ID>** is a numerical value for an error code
- **"<Error Description>"** is a text chain inside double quotation marks, containing an error description
- **<Virtual Control>** is a numerical value that identifies a Virtual Control in a MIMO or NXA device:
- It can be within a [1A..4A] or [1B..4B] range for NXA 4 ch. Models
- It can be within a [1A..6A] or [1B..6B] range for NXA 6 ch. models
- It can be within a [1..64] range for MIMO88, MIMO88CONF, MIMO88SG, MIMO88SGCONF, MIMO1616, MIMO1616CONF, MIMO1212SG and MIMO1212SGCONF models
- It can be within a [1..80] range for MIMO4040CDN model
- It can be within a [1..160] range for MIMO7272DN model

14 NXA DIGITAL AUDIO MANAGER SERIES

IMPORTANT NOTE: The communication must be started with the client sending **the first message SYSTEM CONNECT** to the EclerNet device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SYSTEM	CONNECT	[PINGPONG]			Saves the client IP address for responses and then dumps current device status (with DATA messages)
	DISCONNECT				Cancel subscriptions and terminates communication
	SUBSCRIPTION_RATE	<Rate>			Alive message from device
	PING				Alive message from device
	PONG				Alive ACK message from client
GET	ALL				Dumps current device status (with DATA messages)
	POWER				Gets the Device Power status
	PRESET				Gets the current PRESET
	OLEVEL	<Output Channel>			Gets the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>		Gets the current LEVEL of a Matrix point
	OMUTE	<Output Channel>			Gets the current MUTE status of an Output Channel
	XMUTE	<Input Channel>	<Output Channel>		Gets the current MUTE status of a Matrix Point
	OVU	<Output Channel>			Gets the VU-meter value of an Output Channel
	ALARM_PROTECT	<Output Channel>			Gets the Protect alarm status of an Output Channel
	ALARM_FAULT	<Output Channel>			Gets the self-diagnosis system alarm status of an Output Channel

	INFO_NAME				Gets the Device Name
	INFO_MODEL				Gets the Device Model
	INFO_VERSION				Gets the Firmware Version
	INFO_MAC				Gets the Device MAC address
	VIRTUAL_CONTROL	<Virtual Control>			Gets the Virtual Control value

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SET	POWER	ON/OFF			Sets the Device Power status
	PRESET	<Preset Number>			Sets the current PRESET
	OLEVEL	<Output Channel>	<Level>		Sets the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>	<Level>	Sets the current LEVEL of a Matrix point
	OMUTE	<Output Channel>	YES/NO		Sets the current MUTE status of an Output Channel
	XMUTE	<Input Channel>	<Output Channel>		Sets the current MUTE status of a Matrix Point
	VIRTUAL_CONTROL	<Virtual Control>	<Value>		Sets the Virtual Control value (Value can range from 1 to 100)
INC	OLEVEL	<Output Channel>	<Value>		Increases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)
	XLEVEL	<Input Channel>	<Output Channel>	<Value>	Increases the current LEVEL of a Matrix point by Value (Value can range from ±1 to ±100)
DEC	OLEVEL	<Output Channel>	<Value>		Decreases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)
	XLEVEL	<Input Channel>	<Output Channel>	<Value>	Decreases the current LEVEL of a Matrix point by Value (Value can range from ±1 to ±100)
SUBSCRIBE	ALL				Subscribes to all VU-meters
	OVU	<Output Channel>			Subscribes to an Output Channel VU-meter
UNSUBSCRIBE	ALL				Unsubscribe to all VU-meters
	OVU	<Output Channel>			Unsubscribe to an Output Channel VU-meter
DATA	POWER	ON/OFF			Shows the Device Power status
	PRESET	<Preset Number>			Shows the current PRESET
	OLEVEL	<Output Channel>	<Level>		Shows the current LEVEL of an Output Channel

	XLEVEL	<Input Channel>	<Output Channel>	<Level>		Shows the current LEVEL of a Matrix point
	OMUTE	<Output Channel>	YES/NO			Shows the current MUTE status of an Output Channel
	XMUTE	<Input Channel>	<Output Channel>	YES/NO		Shows the current MUTE status of a Matrix point
	VIRTUAL_CONTROL	<Virtual Control>	<Value>			Shows the Virtual Control value
	OVU	<Output Channel>	<Pre Vumeter Level>	<Post Vumeter Level>		Shows the VU-meter value of an Output Channel
	ALARM_PROTECT	<Output Channel>	ON/OFF			Shows the Protect alarm status of an Output Channel
	ALARM_FAULT	<Output Channel>	ON/OFF			Shows the self-diagnosis system alarm status of an Output Channel
	INFO_NAME	"<Device Name>"				Shows the Device Name
	INFO_MODEL	<Device Model>				Shows the Device Model
	INFO_VERSION	<Firmware Version>				Shows the Firmware Version
	INFO_MAC	<Device MAC address>				Shows the Device MAC address
ERROR	<Error ID>	"<Error Description>"				Informs about an error

Note: INC and DEC commands are replied with a DATA command from the device with the resulting LEVEL value, after it has been increased or decreased. When the INC or DEC command tries to adjust a LEVEL value beyond its minimum or maximum limits, no reply (DATA command) will be produced.

15 NZA MULTICHANNEL AMPLIFIER SERIES

IMPORTANT NOTE: The communication must be started with the client sending **the first message** **SYSTEM CONNECT** to the EclerNet device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SET	POWER	ON/OFF			Sets the Device Power status
	PRESET	<Preset Number>			Sets the current PRESET
	OLEVEL	<Output Channel>	<Level>		Sets the current LEVEL of an Output Channel
	OMUTE	<Output Channel>	YES/NO		Sets the current MUTE status of an Output Channel
SUBSCRIBE	ALL				Subscribes to all VU-meters
	OVU	<Output Channel>			Subscribes to an Output Channel VU-meter
UNSUBSCRIBE	ALL				Unsubscribe to all VU-meters
	OVU	<Output Channel>			Unsubscribe to an Output Channel VU-meter
DATA	POWER	ON/OFF			Shows the Device Power status
	PRESET	<Preset Number>			Shows the current PRESET
	OLEVEL	<Output Channel>	<Level>		Shows the current LEVEL of an Output Channel
	OMUTE	<Output Channel>	YES/NO		Shows the current MUTE status of an Output Channel
	OVU	<Output Channel>	<Pre Vumeter Level>	<Post Vumeter Level>	Shows the VU-meter value of an Output Channel
	ALARM_PROTECT	<Output Channel>	ON/OFF		Shows the Protect alarm status of an Output Channel
	INFO_NAME	"<Device Name>"			Shows the Device Name
	INFO_MODEL	<Device Model>			Shows the Device Model
	INFO_VERSION	<Firmware Version>			Shows the Firmware Version
	INFO_MAC	<Device MAC address>			Shows the Device MAC address
ERROR	<Error ID>	"<Error Description>"			Informs about an error

16 NPA STEREO AMPLIFIER SERIES

IMPORTANT NOTE: The communication must be started with the client sending **the first message** **SYSTEM CONNECT** to the EclerNet device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SYSTEM	CONNECT	[PINGPONG]			Saves the client IP address for responses and then dumps current device status (with DATA messages)
	DISCONNECT				Cancel subscriptions and terminates communication
	SUBSCRIPTION_RATE	<Rate>			Alive message from device
	PING				Alive message from device
	PONG				Alice ACK message from client
GET	ALL				Dumps current device status (with DATA messages)
	POWER				Gets the Device Power status
	PRESET				Gets the current PRESET
	OLEVEL	<Output Channel>			Gets the current LEVEL of an Output Channel
	OMUTE	<Output Channel>			Gets the current MUTE status of an Output Channel
	OVU	<Output Channel>			Gets the VU-meter value of an Output Channel
	ALARM_PROTECT	<Output Channel>			Gets the Protect alarm status of an Output Channel
	ALARM_THERMAL	<Output Channel>			Gets the Thermal alarm status of an Output Channel
	ALARM_LOAD	<Output Channel>			Gets the Load alarm status of an Output Channel
	ALARM_VOLTAGE				Gets the Voltage alarm status of the Device
	INFO_NAME				Gets the Device Name
	INFO_MODEL				Gets the Device Model
	INFO_VERSION				Gets the Firmware Version

	INFO_MAC				Gets the Device MAC address

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SET	POWER	ON/OFF			Sets the Device Power status
	PRESET	<Preset Number>			Sets the current PRESET
	OLEVEL	<Output Channel>	<Level>		Sets the current LEVEL of an Output Channel
	OMUTE	<Output Channel>	YES/NO		Sets the current MUTE status of an Output Channel
SUBSCRIBE	ALL				Subscribes to all VU-meters
	OVU	<Output Channel>			Subscribes to an Output Channel VU-meter
UNSUBSCRIBE	ALL				Unsubscribe to all VU-meters
	OVU	<Output Channel>			Unsubscribe to an Output Channel VU-meter
DATA	POWER	ON/OFF			Shows the Device Power status
	PRESET	<Preset Number>			Shows the current PRESET
	OLEVEL	<Output Channel>	<Level>		Shows the current LEVEL of an Output Channel
	OMUTE	<Output Channel>	YES/NO		Shows the current MUTE status of an Output Channel
	OVU	<Output Channel>	<Pre Vumeter Level>	<Post Vumeter Level>	Shows the VU-meter value of an Output Channel
	ALARM_PROTECT	<Output Channel>	ON/OFF		Shows the Protect alarm status of an Output Channel
	ALARM_THERMAL	<Output Channel>	ON/OFF		Shows the Thermal alarm status of an Output Channel
	ALARM_LOAD	<Output Channel>	ON/OFF		Shows the Load alarm status of an Output Channel
	ALARM_VOLTAGE	ON/OFF			Shows the Voltage alarm status of the Device

	INFO_NAME	"<Device Name>"			Shows the Device Name
	INFO_MODEL	<Device Model>			Shows the Device Model
	INFO_VERSION	<Firmware Version>			Shows the Firmware Version
	INFO_MAC	<Device MAC address>			Shows the Device MAC address
ERROR	<Error ID>	"<Error Description>"			Informs about an error

17 MIMO88 / MIMO88 CONFERENCE / MIMO88SG / MIMO1212SG (SINGLE) DIGITAL MATRIX

IMPORTANT NOTE: The communication must be started with the client sending **the first message** **SYSTEM CONNECT** to the EclerNet device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SYSTEM	CONNECT	[PINGPONG]			Saves the client IP address for responses and then dumps current device status (with DATA messages)
	DISCONNECT				Cancel subscriptions and terminates communication
	SUBSCRIPTION_RATE	<Rate>			Alive message from device
	PING				Alive message from device
	PONG				Alive ACK message from client
GET	ALL				Dumps current device status (with DATA messages)
	PRESET				Gets the current PRESET
	ILEVEL	<Input Channel>			Gets the current LEVEL of an Input Channel
	OLEVEL	<Output Channel>			Gets the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>		Gets the current LEVEL of a Matrix point
	IMUTE	<Input Channel>			Gets the current MUTE status of an Input Channel
	OMUTE	<Output Channel>			Gets the current MUTE status of an Output Channel
	XMUTE	<Input Channel>	<Output Channel>		Gets the current MUTE status of a Matrix Point
	IVU	<Input Channel>			Gets the VU-meter value of an Input Channel

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	OVU	<Output Channel>			Gets the VU-meter value of an Output Channel
	GPI	<Input>			Gets the current value of a General Purpose Input
	GPO	<Output>			Gets the current value of a General Purpose Output **(not valid for MIMO88SG / MIMO1212SG)**
	INFO_NAME				Gets the Device Name
	INFO_MODEL				Gets the Device Model
	INFO_VERSION				Gets the Firmware Version
	INFO_MAC				Gets the Device MAC address
	VIRTUAL_CONTROL	<Virtual Control>			Gets the Virtual Control value

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SET	PRESET	<Preset Number>			Sets the current PRESET
	ILEVEL	<Input Channel>	<Level>		Sets the current LEVEL of an Input Channel
	OLEVEL	<Output Channel>	<Level>		Sets the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>	<Level>	Sets the current LEVEL for a Matrix point
	IMUTE	<Input Channel>	YES/NO		Sets the current MUTE status of an Input Channel
	OMUTE	<Output Channel>	YES/NO		Sets the current MUTE status of an Output Channel
	XMUTE	<Input Channel>	<Output Channel>	YES/NO	Sets the current MUTE status for a Matrix Point
	GPO	<Output>	<GPO Value>		Sets the current value for a General Purpose Output **(not valid for MIMO88SG)**
	VIRTUAL_CONTROL	<Virtual Control>	<Value>		Sets the Virtual Control value (Value can range from 1 to 100)
INC	ILEVEL	<Input Channel >	<Value>		Increases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	OLEVEL	<Output Channel>	<Value>		Increases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)
	XLEVEL	<Input Channel>	<Output Channel>	<Value>	Increases the current LEVEL of a Matrix point by Value (Value can range from ±1 to ±100)
DEC	ILEVEL	<Input Channel >	<Value>		Decreases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	OLEVEL	<Output Channel>	<Value>		Decreases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)

	XLEVEL	<Input Channel>	<Output Channel>	<Value>	Decreases the current LEVEL of a Matrix point by Value (Value can range from ±1 to ±100)
SUBSCRIBE	ALL				Subscribes to all VU-meters
	IVU	<Input Channel>			Subscribes to an Input Channel VU-meter
	OVU	<Output Channel>			Subscribes to an Output Channel VU-meter
UNSUBSCRIBE	ALL				Unsubscribe to all VU-meters
	IVU	<Input Channel>			Unsubscribe to an Input Channel VU-meter
	OVU	<Output Channel>			Unsubscribe to an Output Channel VU-meter

Note: INC and DEC commands are replied with a DATA command from the device with the resulting LEVEL value, after it has been increased or decreased. When the INC or DEC command tries to adjust a LEVEL value beyond its minimum or maximum limits, no reply (DATA command) will be produced.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
DATA	PRESET	<Preset Number>			Shows the current PRESET
	ILEVEL	<Input Channel>	<Level>		Shows the current LEVEL of an Input Channel
	OLEVEL	<Output Channel>	<Level>		Shows the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>	<Level>	Shows the current LEVEL for a Matrix point
	IMUTE	<Input Channel>	YES/NO		Shows the current MUTE status of an Input Channel
	OMUTE	<Output Channel>	YES/NO		Shows the current MUTE status of an Output Channel
	XMUTE	<Input Channel>	<Output Channel>	YES/NO	Shows the current MUTE status for a Matrix Point
	VIRTUAL_CONTROL	<Virtual Control>	<Value>		Shows the Virtual Control value (Value can range from 1 to 100)
	IVU	<Input Channel>	<Pre Vumeter Level>	<Post Vumeter Level>	Shows the VU-meter value of an Input Channel
	OVU	<Output Channel>	<Pre Vumeter Level>	<Post Vumeter Level>	Shows the VU-meter value of an Output Channel
	GPI	<Input>	<GPI Value>		Shows the current value of a General Purpose Input
	GPO	<Output>	<GPO Value)		Shows the current value of a General Purpose Output. **(not valid for MIMO88SG)**
	INFO_NAME	"<Device Name>"			Shows the Device Name
	INFO_MODEL	<Device Model>			Shows the Device Model
	INFO_VERSION	<Firmware Version>			Shows the Firmware Version
	INFO_MAC	<Device MAC address>			Shows the Device MAC address
ERROR	<Error ID>	"<Error Description>"			Informs about an error

18 MIMO88SG CONFERENCE DIGITAL MATRIX

IMPORTANT NOTE: The communication must be started with the client sending **the first message SYSTEM CONNECT** to the EclerNet device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

This MIMO88SG CONFERENCE firmware version shares the same hardware with the standard MIMO88SG unit, just uploading the CONFERENCE firmware version to it, and shares as well the same TP-NET commands in the above table, adding to them these new ones:

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
GET	GATE				Gets the current status of the NOISE GATE for inputs 1 to 8
	AUTOMIXER				Gets the current status of the AUTOMIXER function for inputs 1 to 8
SUBSCRIBE	GATE				Subscribes to the status of the NOISE GATE for inputs 1 to 8
	AUTOMIXER				Subscribes to the status of the AUTOMIXER function for inputs 1 to 8
UNSUSCRIBE	GATE				Unsubscribes to the status of the NOISE GATE for inputs 1 to 8
	AUTOMIXER				Unsubscribes to the status of the AUTOMIXER function for inputs 1 to 8
DATA	GATE	s1 s2 s3 s4 s5 s6 s7 s8			Shows the current NOISE GATE status (0 = open / 1 = closed) for the 8 inputs channels (s1 to s8, status of the gate for inputs 1 to 8)
	AUTOMIXER	s1 s2 s3 s4 s5 s6 s7 s8			Shows the current status for input channels in the Automixer section (0 = disabled or bellow threshold in the automixer / 1 = enabled and beyond threshold, but queued, not in the automatic mix / 2 = enabled, beyond threshold and into the automatic mix) for the 8 inputs channels (s1 to s8, status of the automixer function for inputs 1 to 8)

19 MIMO 7272DN / MIMO4040CDN DIGITAL MATRIX

IMPORTANT NOTE: The communication must be started with the client sending **the first message** **SYSTEM CONNECT** to the EclerNet device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SYSTEM	CONNECT	[MASTER]	[PINGPONG]	[ONCE]	Saves the client IP address for responses and then dumps current device status (with DATA messages)
	DISCONNECT				Cancel subscriptions and terminates communication
	SUBSCRIPTION_RATE	<Rate>			Alive message from device
	PING				Alive message from device
	PONG				Alive ACK message from client
	PING INTERVAL	<1-1000>			Ping Interval, in seconds
GET	ALL				Dumps current device status (with DATA messages)
	PRESET				Gets the current PRESET
	ILEVEL	<Input Channel>			Gets the current LEVEL of an Input Channel
	OLEVEL	<Output Channel>			Gets the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>		Gets the current LEVEL of a Matrix point
	IMUTE	<Input Channel>			Gets the current MUTE status of an Input Channel
	XMUTE	<Input Channel>	<Output Channel>		Gets the current MUTE status of a Matrix Point
	IVU	<Input Channel>			Gets the VU-meter value of an Input Channel
	OVU	<Output Channel>			Gets the VU-meter value of an Output Channel

	GPI	<Input>			Gets the current value of a General Purpose Input
	GPO	<Output>			Gets the current value of a General Purpose Output
	INFO_NAME				Gets the Device Name
	INFO_MODEL				Gets the Device Model
	INFO_VERSION				Gets the Firmware Version
	INFO_MAC				Gets the Device MAC address
	VIRTUAL_CONTROL	<Virtual Control>			Gets the Virtual Control value

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SET	PRESET	<Preset Number>			Sets the current PRESET
	ILEVEL	<Input Channel>	<Level>		Sets the current LEVEL of an Input Channel
	OLEVEL	<Output Channel>	<Level>		Sets the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>	<Level>	Sets the current LEVEL for a Matrix point
	IMUTE	<Input Channel>	YES/NO		Sets the current MUTE status of an Input Channel
	XMUTE	<Input Channel>	<Output Channel>	YES/NO	Sets the current MUTE status for a Matrix Point
	GPO	<Output>	<GPO Value>		Sets the current value for a General Purpose Output
	VIRTUAL_CONTROL	<Virtual Control>	<Value>		Sets the Virtual Control value (Value can range from 1 to 100)
INC	ILEVEL	<Input Channel >	<Value>		Increases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	OLEVEL	<Output Channel>	<Value>		Increases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)
	XLEVEL	<Input Channel>	<Output Channel>	<Value>	Increases the current LEVEL of a Matrix point by Value (Value can range from ±1 to ±100)
DEC	ILEVEL	<Input Channel >	<Value>		Decreases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	OLEVEL	<Output Channel>	<Value>		Decreases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)
	XLEVEL	<Input Channel>	<Output Channel>	<Value>	Decreases the current LEVEL of a Matrix point by Value (Value can range from ±1 to ±100)
SUBSCRIBE	ALL				Subscribes to all VU-meters
	IVU	<Input Channel>			Subscribes to an Input Channel VU-meter

	OVU	<Output Channel>			Subscribes to an Output Channel VU-meter
UNSUBSCRIBE	ALL				Unsubscribe to all VU-meters
	IVU	<Input Channel>			Unsubscribe to an Input Channel VU-meter
	OVU	<Output Channel>			Unsubscribe to an Output Channel VU-meter

Note: INC and DEC commands are replied with a DATA command from the device with the resulting LEVEL value, after it has been increased or decreased. When the INC or DEC command tries to adjust a LEVEL value beyond its minimum or maximum limits, no reply (DATA command) will be produced.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
DATA	PRESET	<Preset Number>			Shows the current PRESET
	ILEVEL	<Input Channel>	<Level>		Shows the current LEVEL of an Input Channel
	OLEVEL	<Output Channel>	<Level>		Shows the current LEVEL of an Output Channel
	XLEVEL	<Input Channel>	<Output Channel>	<Level>	Shows the current LEVEL for a Matrix point
	IMUTE	<Input Channel>	YES/NO		Shows the current MUTE status of an Input Channel
	XMUTE	<Input Channel>	<Output Channel>	YES/NO	Shows the current MUTE status for a Matrix Point
	VIRTUAL_CONTROL	<Virtual Control>	<Value>		Shows the Virtual Control value (Value can range from 1 to 100)
	IVU	<Input Channel>	<Pre Vumeter Level>	<Post Vumeter Level>	Shows the VU-meter value of an Input Channel
	OVU	<Output Channel>	<Pre Vumeter Level>	<Post Vumeter Level>	Shows the VU-meter value of an Output Channel
	GPI	<Input>	<GPI Value>		Shows the current value of a General Purpose Input
	GPO	<Output>	<GPO Value)		Shows the current value of a General Purpose Output.
	INFO_NAME	"<Device Name>"			Shows the Device Name
	INFO_MODEL	<Device Model>			Shows the Device Model
	INFO_VERSION	<Firmware Version>			Shows the Firmware Version
	INFO_MAC	<Device MAC address>			Shows the Device MAC address
	INFO IPLIST				Shows the list of clients connected to the Device. The message will contain a list including **ClientNumber ClientIP Client Port** (separated by blank characters)

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
GET	AEC_MIC_LEVEL	<Room>	<Mic>		Gets the current LEVEL of a local mic from a given AEC room
	AEC_MIC_MUTE	<Room>	<Mic>	YES/NO	Gets the current MUTE status of a local mic from a given AEC room
	AEC_MIC_VU	<Room>	<Mic>		Gets the VU-meter value of a of a local mic from a given AEC room. It returns the Pre Fader and Post Fader values
	AEC_SPK_LEVEL	<Room>	<Speaker>		Gets the current LEVEL of a local loudspeaker from a given AEC room
	AEC_SPK_MUTE	<Room>	<Speaker>	YES/NO	Gets the current MUTE status of a local loudspeaker from a given AEC room
	AEC_SPK_VU	<Room>	<Speaker>		Gets the VU-meter value of a local loudspeaker from a given AEC room. It returns the Pre Fader and Post Fader values
SET	AEC_MIC_LEVEL	<Room>	<Mic>	<Value>	Sets the current LEVEL of a local mic from a given AEC room
	AEC_MIC_MUTE	<Room>	<Mic>	YES/NO	Sets the current MUTE status of a local mic from a given AEC room
	AEC_SPK_LEVEL	<Room>	<Speaker>	<Value>	Sets the current LEVEL of a local loudspeaker from a given AEC room
	AEC_SPK_MUTE	<Room>	<Speaker>	YES/NO	Sets the current MUTE status of a local loudspeaker from a given AEC room
	AEC_RESET	<Room>			Reset the AEC algorithm (default parameters) from a given AEC room

INC	AEC_MIC_LEVEL	\<Room\>	\<Mic\>	\<Value\>	Increases the current LEVEL of a local mic from a given AEC room (Value can range from ±1 to ±100)
	AEC_SPK_LEVEL	\<Room\>	\<Speaker\>	\<Value\>	Increases the current LEVEL of a local loudspeaker from a given AEC room (Value can range from ±1 to ±100)
DEC	AEC_MIC_LEVEL	\<Room\>	\<Mic\>	\<Value\>	Decreases the current LEVEL of a local mic from a given AEC room (Value can range from ±1 to ±100)
	AEC_SPK_LEVEL	\<Room\>	\<Speaker\>	\<Value\>	Decreases the current LEVEL of a local loudspeaker from a given AEC room (Value can range from ±1 to ±100)
SUBSCRIBE	AEC_MIC_VU	\<Room\>	\<Mic\>		Subscribe to all VU-meters of a local mic from a given AEC room
	AEC_SPK_VU	\<Room\>	\<Speaker\>		Subscribe to all VU-meters of a local loudspeaker from a given AEC room
UNSUBSCRIBE	AEC_MIC_VU	\<Room\>	\<Mic\>		Unsubscribe to all VU-meters of a local mic from a given AEC room
	AEC_SPK_VU	\<Room\>	\<Speaker\>		Unsubscribe to all VU-meters of a local loudspeaker from a given AEC room

20 DUO-NET PLAYER AUDIO PLAYER & STREAMING RECEIVER

IMPORTANT NOTE: The communication must be started with the client sending **the first message** **SYSTEM CONNECT** to the EclerNet device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SYSTEM	CONNECT	[PINGPONG]			Saves the client IP address for responses and then dumps current device status (with DATA messages)
	DISCONNECT				Cancel subscriptions and terminates communication
	SUBSCRIPTION_RATE	<Rate>			Alive message from device
	PING				Alive message from device
	PONG				Alive ACK message from client
	PING_INTERVAL				
GET	ALL				Dumps current device status (with DATA messages)
	PRESET_INDEX				Gets the current PRESET number
	PRESET_NAME				Gets the current PRESET name
	DEVICE_NAME				Gets the Device Name
	INFO_MODEL				Gets the Device Model
	INFO_VERSION				Gets the Firmware Version
	INFO_MAC				Gets the Device MAC address
	INFO_IPLIST				Gets the IP parameters of the connected client devices
	IP_CONFIG				Shows the DUO-NET unit's current IP configuration
	PLAYER_NAME	<PLAYER:A/B>			Gets the PLAYER A or B NAME
	PLAYER_MUTE	<PLAYER:A/B>			Gets the MUTE status of PLAYER A or B
	PLAYER_VOLUME	<PLAYER:A/B>			Gets the VOLUME level of PLAYER A or B

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PLAYER_VUMETER	<PLAYER:A/B>			Gets the VUMETER level of PLAYER A or B
PLAYER_TIME	<PLAYER:A/B>			Gets PLAYER A or B elapsed, remaining and total time of the current media playback
PLAYER_TRANSPORT_STATUS	<PLAYER:A/B>			Gets PLAYER A or B current playback status
PLAYER_PLAYLIST_INDEX				Gets PLAYER A or B loaded playlist number, from the 99 available in the playlist bank
PLAYER_PLAYLIST_NAME	<PLAYER:A/B>			Gets PLAYER A or B loaded playlist name, from the 99 available in the playlist bank
PLAYER_QUEUE_INFO	<PLAYER:A/B>			Gets PLAYER A or B current playback queue position (index) and total number of items in it (count)
PLAYER_PLAY_MODE	<PLAYER:A/B>			Gets PLAYER A or B current playback order mode
PLAYER_REPEAT_MODE	<PLAYER:A/B>			Gets PLAYER A or B current playback repeat mode
PLAYER_FADE_MODE	<PLAYER:A/B>			Gets PLAYER A or B current tracks playback transition mode
PLAYER_VARISPEED	<PLAYER:A/B>			Gets PLAYER A or B current playback tempo variation value
PRIORITY_STATUS	<PRIORITY:1/2>			Gets PRIORITY MODULE 1 or 2 status
PLAYER_ITEM_TAGS	<PLAYER:A/B>			Gets PLAYER A or B current playback ALIAS, TITLE, ARTIST, ALBUM and NAME tags

SET	PRESET_INDEX	<1..20>			Sets the current PRESET number
	PLAYER_MUTE	<PLAYER:A/B>	<YES/NO>		Sets the MUTE status of PLAYER A or B
	PLAYER_VOLUME	<PLAYER:A/B>	<0..100>		Sets the VOLUME level of PLAYER A or B
	PLAYER_TRANSPORT_CONTROL	<PLAYER:A/B>	<STOP/PLAY/PAUSE/NEXT/PREV>		Sets PLAYER A or B transport controls
	PLAYER_PLAYLIST_INDEX	<PLAYER:A/B>	<1..99>		Sets (loads) PLAYER A or B playlist number, from the 99 available in the playlist bank
	PLAYER_PLAY_MODE	<PLAYER:A/B>	<SEQUENTIAL/RANDOM>		Sets PLAYER A or B playback order mode
	PLAYER_REPEAT_MODE	<PLAYER:A/B>	<PLAY_ALL/PLAY_ONE/REPEAT_ALL/REPEAT_ONE>		Sets PLAYER A or B current playback repeat mode
	PLAYER_FADE_MODE	<PLAYER:A/B>	<NONE/XFADE/FADE/HFADE>		Sets PLAYER A or B current tracks playback transition mode
	PLAYER_VARISPEED	<PLAYER:A/B>	<VARISPEED:-50..50>		Sets the current Varispeed (track's tempo) variation value, from -50% to +50%
INC	PLAYER_VOLUME	PLAYER:A/B>	<0..100>		INCreases the current VOLUME of a PLAYER, a value from ±1 to ±100
	PLAYER_VARISPEED	PLAYER:A/B>	<VARISPEED:-50..50>		INCrements the current Varispeed (track's tempo) variation value, from -50% to +50%
DEC	PLAYER_VOLUME	PLAYER:A/B>	<0..100>		DECreases the current VOLUME of a PLAYER, a value from ±1 to ±100
	PLAYER_VARISPEED	PLAYER:A/B>	<VARISPEED:-50..50>		DECrements the current Varispeed (track's tempo) variation value, from -50% to +50%
SUBSCRIBE	ALL				Subscribes to all VU-meters and player times
	PLAYER_VUMETER	PLAYER:A/B>			Subscribes to the VUMETER level of PLAYER A or B
	PLAYER_TIME	PLAYER:A/B>			Subscribes to the TIME values (elapsed, remaining, total) of PLAYER A or B
UNSUSCRIBE	ALL				Unsubscribes to all VU-meters and player times

	PLAYER_VUMETER	PLAYER:A/B>			Unsubscribes to the VUMETER level of PLAYER A or B
	PLAYER_TIME	PLAYER:A/B>			Unsubscribes to the TIME values (elapsed, remaining, total) of PLAYER A or B

DATA	PRESET_INDEX	<1..20>			Shows the current PRESET number
	PRESET_NAME	"<NAME>"			Shows the current PRESET name
	DEVICE_NAME	"<NAME>"			Shows the Device Name
	INFO_MODEL	<Device Model>			Shows the Device Model
	INFO_VERSION	<Firmware Version>			Shows the Firmware Version
	INFO_MAC	<Device MAC address>			Shows the Device MAC address
	INFO_IPLIST	<N>	<IP>	<PORT>	Shows the IP parameters of the connected client devices, where N is an incremental number assigned to each one, followed by the IP:port it has Example with 2 clients : *DATA INFO_IPLIST 1 192.168.1.2 55229 DATA INFO_IPLIST 2 192.168.1.2 55231*

IP_CONFIG	IP>	<PORT>		<NETMASK>	<GATEWAY>	Shows the DUO-NET unit's current IP configuration. Example: *DATA IP_CONFIG 192.168.0.6 5000 255.255.0.0 192.168.0.1*
PLAYER_NAME	<PLAYER:A/B>	"<NAME>"				Shows the PLAYER A or B NAME
PLAYER_MUTE	<PLAYER:A/B>	<MUTE:YES/NO>				Shows the MUTE status of PLAYER A or B
PLAYER_VOLUME	<PLAYER:A/B>	<VOL:0..100>				Shows the VOLUME level of PLAYER A or B
PLAYER_VUMETER	<PLAYER:A/B>	<VOL:0..100>				Shows the VUMETER level of PLAYER A or B
PLAYER_TIME	<PLAYER:A/B>	<ELAPSED>		<REMAIN>	<TOTAL>	Shows PLAYER A or B elapsed, remaining and total time of the current media playback
PLAYER_TRANSPORT_STATUS	<PLAYER:A/B>	<STATUS:STOPPED/PLAYING/PAUSE>				Shows PLAYER A or B current playback status
PLAYER_PLAYLIST_INDEX	<PLAYER:A/B>	<INDEX:1..99>				Shows PLAYER A or B loaded playlist number, from the 99 available in the playlist bank
PLAYER_PLAYLIST_NAME	<PLAYER:A/B>	"<NAME>"				Shows PLAYER A or B loaded playlist name, from the 99 available in the playlist bank
PLAYER_QUEUE_INFO	<PLAYER:A/B>	<QUEUE_INDEX>		<QUEUE_COUNT>		Shows PLAYER A or B current playback queue position (index) and total number of items in it (count)

	PLAYER_PLAY_MODE	<PLAYER:A/B>	<MODE:SEQUENTIAL/RANDOM>		Shows PLAYER A or B current playback order mode
	PLAYER_REPEAT_MODE	<PLAYER:A/B>	<MODE:PLAY_ALL/PLAY_ONE/REPEAT_ALL/REPEAT_ONE>		Shows PLAYER A or B current playback repeat mode
	PLAYER_FADE_MODE	<PLAYER:A/B>	<MODE:NONE/XFADE/FADE/HFADE>		Shows PLAYER A or B current tracks playback transition mode
	PLAYER_VARISPEED	<PLAYER:A/B>	<VALUE:-50..50>		Shows PLAYER A or B current playback tempo variation value
	PRIORITY_STATUS	<PRIORITY:1/2>	<STATUS:RUNNING/STOPPED>		Shows PRIORITY MODULE 1 or 2 status
	PLAYER_ITEM_TAG_ALIAS	<PLAYER:A/B>	"<ALIAS>"		Shows PLAYER A or B current playlist ALIAS field
	PLAYER_ITEM_TAG_TITLE	<PLAYER:A/B>	"<TITLE>"		Shows PLAYER A or B current playback title tag
	PLAYER_ITEM_TAG_ARTIST	<PLAYER:A/B>	"<ARTIST>"		Shows PLAYER A or B current playback artist tag
	PLAYER_ITEM_TAG_ALBUM	<PLAYER:A/B>	"<ALBUM>"		Shows PLAYER A or B current playback album tag
	PLAYER_ITEM_TAG_NAME	<PLAYER:A/B>	"<NAME>"		Shows PLAYER A or B current playback name tag

21 ERROR CODES FOR ECLERNET DEVICES

21.1 COMMON ERROR CODES (to all EclerNet - TP-NET compatible devices)

ERROR ID	DESCRIPTION
0	TPNET_ERROR_NONE = 0,
1	TPNET_ERROR_INVALID_FIELD_TYPE,
2	TPNET_ERROR_INVALID_FIELD_PARAM1,
3	TPNET_ERROR_INVALID_FIELD_PARAM2,
4	TPNET_ERROR_INVALID_FIELD_PARAM3,
5	TPNET_ERROR_INVALID_FIELD_PARAM4,

21.2 NXA SERIES SPECIFIC ERROR CODES

ERROR ID	DESCRIPTION
6	UDP_ERROR_TIMEOUT_PONG,
7	UDP_ERROR_CONNECT_WHILE_CONNECTED,
8	UDP_ERROR_DISCONNECT_WHILE_UNCONNECTED,
9	UDP_ERROR_INVALID_CLIENT_IP,
10	UDP_ERROR_MESSAGE_TOO_LONG,
11	UDP_ERROR_UNSUPPORTED_MESSAGE,
12	UDP_ERROR_UNSUPPORTED_PRESET_NUMBER,
13	UDP_ERROR_UNSUPPORTED_INPUT_CHANNEL_NUMBER,
14	UDP_ERROR_UNSUPPORTED_OUTPUT_CHANNEL_NUMBER,
15	UDP_ERROR_UNSUPPORTED_GPI_NUMBER,
16	UDP_ERROR_UNSUPPORTED_GPO_NUMBER,
17	UDP_ERROR_INVALID_LEVEL_VALUE,
18	UDP_ERROR_INVALID_RATE_VALUE,
19	UDP_ERROR_GPO_VALUE,
20	UDP_ERROR_MAX_CLIENTS_REACHED,
21	UDP_ERROR_MASTER_MODE,

ERROR ID	DESCRIPTION
6	UDP_ERROR_TIMEOUT_PONG,
7	UDP_ERROR_CONNECT_WHILE_CONNECTED,
8	UDP_ERROR_DISCONNECT_WHILE_UNCONNECTED,
9	UDP_ERROR_INVALID_CLIENT_IP,
10	UDP_ERROR_MESSAGE_TOO_LONG,
11	UDP_ERROR_UNSUPPORTED_MESSAGE,
12	UDP_ERROR_UNSUPPORTED_PRESET_NUMBER,
13	UDP_ERROR_UNSUPPORTED_INPUT_CHANNEL_NUMBER,
14	UDP_ERROR_UNSUPPORTED_OUTPUT_CHANNEL_NUMBER,
15	UDP_ERROR_UNSUPPORTED_GPI_NUMBER,
16	UDP_ERROR_UNSUPPORTED_GPO_NUMBER,
17	UDP_ERROR_INVALID_LEVEL_VALUE,
18	UDP_ERROR_INVALID_RATE_VALUE,
19	UDP_ERROR_GPO_VALUE,
20	UDP_ERROR_UNSUPPORTED_INPUT_SELECT_VALUE,

ERROR ID	DESCRIPTION
6	UDP_ERROR_TIMEOUT_PONG,
7	UDP_ERROR_CONNECT_WHILE_CONNECTED,
8	UDP_ERROR_DISCONNECT_WHILE_UNCONNECTED,
9	UDP_ERROR_INVALID_CLIENT_IP,
10	UDP_ERROR_MESSAGE_TOO_LONG,
11	UDP_ERROR_UNSUPPORTED_MESSAGE,
12	UDP_ERROR_UNSUPPORTED_PRESET_NUMBER,
13	UDP_ERROR_UNSUPPORTED_INPUT_CHANNEL_NUMBER,
14	UDP_ERROR_UNSUPPORTED_OUTPUT_CHANNEL_NUMBER,
15	UDP_ERROR_UNSUPPORTED_GPI_NUMBER,
16	UDP_ERROR_UNSUPPORTED_GPO_NUMBER,
17	UDP_ERROR_INVALID_LEVEL_VALUE,
18	UDP_ERROR_INVALID_RATE_VALUE,
19	UDP_ERROR_GPO_VALUE,

ERROR ID	DESCRIPTION
6	UDP_ERROR_TIMEOUT_PONG,
7	UDP_ERROR_CONNECT_WHILE_CONNECTED,
8	UDP_ERROR_DISCONNECT_WHILE_UNCONNECTED,
9	UDP_ERROR_INVALID_CLIENT_IP,
10	UDP_ERROR_MESSAGE_TOO_LONG,
11	UDP_ERROR_UNSUPPORTED_MESSAGE,
12	UDP_ERROR_UNSUPPORTED_PRESET_NUMBER,
13	UDP_ERROR_UNSUPPORTED_INPUT_CHANNEL_NUMBER,
14	UDP_ERROR_UNSUPPORTED_OUTPUT_CHANNEL_NUMBER,
15	UDP_ERROR_UNSUPPORTED_GPI_NUMBER,
16	UDP_ERROR_INVALID_LEVEL_VALUE,
17	UDP_ERROR_INVALID_RATE_VALUE,

ERROR ID	DESCRIPTION
6	TPNET_ERROR_INVALID_FIELD_PARAM5,
7	TPNET_ERROR_TIMEOUT_PONG,
8	TPNET_ERROR_CONNECT_WHILE_CONNECTED,
9	TPNET_ERROR_DISCONNECT_WHILE_UNCONNECTED,
10	TPNET_ERROR_INVALID_CLIENT_IP,
11	TPNET_ERROR_MESSAGE_TOO_LONG,
12	TPNET_ERROR_UNSUPPORTED_MESSAGE,
13	TPNET_ERROR_INVALID_RATE_VALUE,
14	TPNET_ERROR_MAX_CLIENTS_REACHED,
15	TPNET_ERROR_MASTER_MODE,

22 eMIMO1616 DIGITAL MATRIX

IMPORTANT NOTE: The communication must be started with the client sending **the first message SYSTEM CONNECT** to the device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SYSTEM	CONNECT	[PINGPONG]			Saves the client IP address for responses and then dumps current device status (with DATA messages)
	DISCONNECT				Cancel subscriptions and terminates communication
	SUBSCRIPTION_RATE	<Rate>			Alive message from device
	PING_INTERVAL	<1-1000>			Ping Interval, in seconds
	PING				Alive message from device
	PONG				Alive ACK message from client
GET	ALL				Dumps current device status (with DATA messages)
	INFO_NAME				Gets the Device Name
	INFO_MODEL				Gets the Device Model
	INFO_VERSION				Gets the Firmware Version
	INFO_MAC				Gets the Device MAC address
	IP_CONFIG				Gets the Device network configuration
	INFO_IPLIST				Gets the list of clients connected to the Device
	INAME	<Input Channel>			Gets the NAME (label) of an Input Channel
	ILEVEL	<Input Channel>			Gets the current LEVEL of an Input Channel
	IMUTE	<Input Channel>			Gets the current MUTE status of an Input Channel
	IBASSGAIN	<Input Channel>			Gets the current BASS EQ filter GAIN of an Input Channel
	IMIDGAIN	<Input Channel>			Gets the current MID EQ filter GAIN of an Input Channel

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	ITREBLEGAIN	<Input Channel>			Gets the current TREBLE EQ filter GAIN of an Input Channel
	IVU	<Input Channel>			Gets the VU-meter value of an Input Channel
	ONAME	<Output Channel>			Gets the NAME (label) of an Output Channel
	OLEVEL	<Output Channel>			Gets the current LEVEL of an Output Channel
	OMUTE	<Output Channel>			Gets the current MUTE status of an Output Channel
	OBASSGAIN	<Output Channel>			Gets the current BASS EQ filter GAIN of an Output Channel
	OMIDGAIN	<Output Channel>			Gets the current MID EQ filter GAIN of an Output Channel
	OTREBLEGAIN	<Output Channel>			Gets the current TREBLE EQ filter GAIN of an Output Channel
	OVU	<Output Channel>			Gets the VU-meter value of an Output Channel
	OSOURCESEL	<Output Channel>			Gets the current selected source (input) of an Output Channel

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SET	IMUTE	<Input Channel>	YES/NO		Sets the current MUTE status of an Input Channel
	ILEVEL	<Input Channel>	<Level>		Sets the current LEVEL of an Input Channel (Level can range from 1 to 100)
	IBASSGAIN	<Input Channel>	<Gain>		Sets the current BASS EQ filter GAIN of an Input Channel (Gain can range from ±1 to ±100)
	IMIDGAIN	<Input Channel>	<Gain>		Sets the current MID EQ filter GAIN of an Input Channel (Gain can range from ±1 to ±100)
	ITREBLEGAIN	<Input Channel>	<Gain>		Sets the current TREBLE EQ filter GAIN of an Input Channel (Gain can range from ±1 to ±100)
	OMUTE	<Output Channel>	YES/NO		Sets the current MUTE status of an Output Channel
	OLEVEL	<Output Channel>	<Level>		Sets the current LEVEL of an Output Channel (Level can range from 1 to 100)
	OBASSGAIN	<Output Channel>	<Gain>		Sets the current BASS EQ filter GAIN of an Output Channel (Gain can range from ±1 to ±100)
	OMIDGAIN	<Output Channel>	<Gain>		Sets the current MID EQ filter GAIN of an Output Channel (Gain can range from ±1 to ±100)
	OTREBLEGAIN	<Output Channel>	<Gain>		Sets the current TREBLE EQ filter GAIN of an Output Channel (Gain can range from ±1 to ±100)
	OSOURCESEL	<Output Channel>	<Input>		Sets the selected source (input) for an Output Channel (Input (source) can range from 0 to 16, meaning 0 = no source (silence))
INC	ILEVEL	<Input Channel >	<Value>		Increases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	IBASSGAIN	<Input Channel>	<Value>		Increases the current BASS EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	IMIDGAIN	<Input Channel>	<Value>		Increases the current MID EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)

	ITREBLEGAIN	<Input Channel>	<Value>		Increases the current TREBLE EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OLEVEL	<Output Channel>	<Value>		Increases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)
	OBASSGAIN	<Input Channel>	<Value>		Increases the current BASS EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OMIDGAIN	<Input Channel>	<Value>		Increases the current MID EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OTREBLEGAIN	<Input Channel>	<Value>		Increases the current TREBLE EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
DEC	ILEVEL	<Input Channel >	<Value>		Decreases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	IBASSGAIN	<Input Channel>	<Value>		Decreases the current BASS EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	IMIDGAIN	<Input Channel>	<Value>		Decreases the current MID EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	ITREBLEGAIN	<Input Channel>	<Value>		Decreases the current TREBLE EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)

	OLEVEL	<Output Channel>	<Value>		Decreases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)
	OBASSGAIN	<Input Channel>	<Value>		Decreases the current BASS EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OMIDGAIN	<Input Channel>	<Value>		Decreases the current MID EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OTREBLEGAIN	<Input Channel>	<Value>		Decreases the current TREBLE EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
SUBSCRIBE	ALL				Subscribes to all VU-meters
	IVU	<Input Channel>			Subscribes to an Input Channel VU-meter
	OVU	<Output Channel>			Subscribes to an Output Channel VU-meter
UNSUBSCRIBE	ALL				Unsubscribe to all VU-meters
	IVU	<Input Channel>			Unsubscribe to an Input Channel VU-meter
	OVU	<Output Channel>			Unsubscribe to an Output Channel VU-meter

Note: INC and DEC commands are replied with a DATA command from the device with the resulting LEVEL value, after it has been increased or decreased. When the INC or DEC command tries to adjust a LEVEL value beyond its minimum or maximum limits, no reply (DATA command) will be produced.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
DATA	INFO_NAME	"<Device Name>"			Shows the Device Name
	INFO_MODEL	<Device Model>			Shows the Device Model
	INFO_VERSION	<Firmware Version>			Shows the Firmware Version
	INFO_MAC	<Device MAC address>			Shows the Device MAC address
	IP_CONFIG				Shows the Device network configuration. The message will contain **DeviceIP DeviceMask DeviceGateway** (separated by blank characters)
	INFO_IPLIST				Shows the list of clients connected to the Device. The message will contain a list including **ClientNumber ClientIP Client Port** (separated by blank characters)
	INAME	<Input Channel>	<Name>		Shows the NAME (label) of an Input Channel
	ILEVEL	<Input Channel>	<Level>		Shows the current LEVEL of an Input Channel
	IMUTE	<Input Channel>	YES/NO		Shows the current MUTE status of an Input Channel
	IBASSGAIN	<Input Channel>	<Gain>		Shows the current BASS EQ filter GAIN of an Input Channel
	IMIDGAIN	<Input Channel>	<Gain>		Shows the current MID EQ filter GAIN of an Input Channel
	ITREBLEGAIN	<Input Channel>	<Gain>		Shows the current TREBLE EQ filter GAIN of an Input Channel
	IVU	<Input Channel>	<Post Vumeter Level>		Shows the VU-meter value of an Input Channel
	ONAME	<Output Channel>	<Name>		Shows the NAME (label) of an Output Channel
	OLEVEL	<Output Channel>	<Level>		Shows the current LEVEL of an Output Channel

	OMUTE	\<Output Channel\>	YES/NO		Shows the current MUTE status of an Output Channel
	OBASSGAIN	\<Input Channel\>	\<Gain\>		Shows the current BASS EQ filter GAIN of an Output Channel
	OMIDGAIN	\<Input Channel\>	\<Gain\>		Shows the current MID EQ filter GAIN of an Output Channel
	OTREBLEGAIN	\<Input Channel\>	\<Gain\>		Shows the current TREBLE EQ filter GAIN of an Output Channel
	OVU	\<Output Channel\>	\<Post Vumeter Level\>		Shows the VU-meter value of an Output Channel
	OSOURCESEL	\<Output Channel\>	\<Input\>		Shows the current selected source (input) of an Output Channel. (Input (source) can range from 0 to 16, meaning 0 = no source (silence))
ERROR	\<Error ID\>	"\<Error Description\>"			Informs about an error

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ERROR ID	DESCRIPTION
0	No error. Depending on scenario, can report any of the following: • Device is in TEST MODE • Device is in FACTORY MODE • Last loaded project was incomplete • Now Disconnected
1	Invalid Field MSG
2	Depending on scenario, can report any of the following: • Invalid Field DATA • Invalid Field VALUE • Invalid Field PARAM1
3	Invalid Field CHANNEL
4	Invalid Field VALUE
7	Timeout Waiting PONG
8	CONNECT received while connected
9	DISCONNECT received while unconnected
10	Invalid client (client not connected)
11	Message too long (more than 80 characters)
12	Message with invalid format
13	Depending on scenario, can report any of the following: • Invalid Ping Interval value • Invalid Subscription Interval value
14	Maximum number of clients reached
15	Master Mode active

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IMPORTANT NOTE: The communication must be started with the client sending **the first message** **SYSTEM CONNECT** to the device. Otherwise, the commands from the client to the EclerNet device will be ignored. See TP-NET PROTOCOL INTRODUCTION chapter for additional information.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SYSTEM	CONNECT	[PINGPONG]			Saves the client IP address for responses and then dumps current device status (with DATA messages)
	DISCONNECT				Cancel subscriptions and terminates communication
	SUBSCRIPTION_RATE	<Rate>			Alive message from device
	PING_INTERVAL	<1-1000>			Ping Interval, in seconds
	PING				Alive message from device
	PONG				Alive ACK message from client
GET	ALL				Dumps current device status (with DATA messages)
	INFO_NAME				Gets the Device Name
	INFO_MODEL				Gets the Device Model
	INFO_VERSION				Gets the Firmware Version
	INFO_MAC				Gets the Device MAC address
	IP_CONFIG				Gets the Device network configuration
	INFO_IPLIST				Gets the list of clients connected to the Device
	INAME	<Input Channel>			Gets the NAME (label) of an Input Channel
	ILEVEL	<Input Channel>			Gets the current LEVEL of an Input Channel
	IMUTE	<Input Channel>			Gets the current MUTE status of an Input Channel
	IBASSGAIN	<Input Channel>			Gets the current BASS EQ filter GAIN of an Input Channel
	IMIDGAIN	<Input Channel>			Gets the current MID EQ filter GAIN of an Input Channel

	ITREBLEGAIN	<Input Channel>			Gets the current TREBLE EQ filter GAIN of an Input Channel
	IVU	<Input Channel>			Gets the VU-meter value of an Input Channel
	ONAME	<Output Channel>			Gets the NAME (label) of an Output Channel
	OLEVEL	<Output Channel>			Gets the current LEVEL of an Output Channel
	OMUTE	<Output Channel>			Gets the current MUTE status of an Output Channel
	OGENVOL				Gets the current LEVEL of the General Volume
	OMUTEGENVOL				Gets the current MUTE status of the General Volume
	OBASSGAIN	<Output Channel>			Gets the current BASS EQ filter GAIN of an Output Channel
	OMIDGAIN	<Output Channel>			Gets the current MID EQ filter GAIN of an Output Channel
	OTREBLEGAIN	<Output Channel>			Gets the current TREBLE EQ filter GAIN of an Output Channel
	OVU	<Output Channel>			Gets the VU-meter value of an Output Channel
	OSOURCESEL	<Output Channel>			Gets the current selected source (input) of an Output Channel

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
SET	IMUTE	<Input Channel>	YES/NO		Sets the current MUTE status of an Input Channel
	ILEVEL	<Input Channel>	<Level>		Sets the current LEVEL of an Input Channel (Level can range from 1 to 100)
	IBASSGAIN	<Input Channel>	<Gain>		Sets the current BASS EQ filter GAIN of an Input Channel (Gain can range from ±1 to ±100)
	IMIDGAIN	<Input Channel>	<Gain>		Sets the current MID EQ filter GAIN of an Input Channel (Gain can range from ±1 to ±100)
	ITREBLEGAIN	<Input Channel>	<Gain>		Sets the current TREBLE EQ filter GAIN of an Input Channel (Gain can range from ±1 to ±100)
	OMUTE	<Output Channel>	YES/NO		Sets the current MUTE status of an Output Channel

	OLEVEL	<Output Channel>	<Level>		Sets the current LEVEL of an Output Channel (Level can range from 1 to 100)
	OGENVOL	<Level>			Sets the current LEVEL of the General Volume (Level can range from 1 to 100)
	OMUTEGENVOL	YES/NO			Sets the current MUTE status of the General Volume
	OBASSGAIN	<Output Channel>	<Gain>		Sets the current BASS EQ filter GAIN of an Output Channel (Gain can range from ±1 to ±100)
	OMIDGAIN	<Output Channel>	<Gain>		Sets the current MID EQ filter GAIN of an Output Channel (Gain can range from ±1 to ±100)
	OTREBLEGAIN	<Output Channel>	<Gain>		Sets the current TREBLE EQ filter GAIN of an Output Channel (Gain can range from ±1 to ±100)
	OSOURCESEL	<Output Channel>	<Input>		Sets the selected source (input) for an Output Channel (Input (source) can range from 0 to 16, meaning 0 = no source (silence))
INC	ILEVEL	<Input Channel >	<Value>		Increases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	IBASSGAIN	<Input Channel>	<Value>		Increases the current BASS EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	IMIDGAIN	<Input Channel>	<Value>		Increases the current MID EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	ITREBLEGAIN	<Input Channel>	<Value>		Increases the current TREBLE EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OLEVEL	<Output Channel>	<Value>		Increases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)

	OGENVOL	<Value>			Increases the current LEVEL of the General Volume by Value (Value can range from ±1 to ±100)
	OBASSGAIN	<Input Channel>	<Value>		Increases the current BASS EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OMIDGAIN	<Input Channel>	<Value>		Increases the current MID EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OTREBLEGAIN	<Input Channel>	<Value>		Increases the current TREBLE EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
DEC	ILEVEL	<Input Channel >	<Value>		Decreases the current LEVEL of an Input Channel by Value (Value can range from ±1 to ±100)
	IBASSGAIN	<Input Channel>	<Value>		Decreases the current BASS EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	IMIDGAIN	<Input Channel>	<Value>		Decreases the current MID EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	ITREBLEGAIN	<Input Channel>	<Value>		Decreases the current TREBLE EQ filter GAIN of an Input Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OLEVEL	<Output Channel>	<Value>		Decreases the current LEVEL of an Output Channel by Value (Value can range from ±1 to ±100)

	OGENVOL	<Value>			Decreases the current LEVEL of the General Volume by Value (Value can range from ±1 to ±100)
	OBASSGAIN	<Input Channel>	<Value>		Decreases the current BASS EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OMIDGAIN	<Input Channel>	<Value>		Decreases the current MID EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
	OTREBLEGAIN	<Input Channel>	<Value>		Decreases the current TREBLE EQ filter GAIN of an Output Channel by Value (Value can range from ±1 to ±200, where 200 means 20.0 -> values are steps like nn.n, with decimal fraction)
SUBSCRIBE	ALL				Subscribes to all VU-meters
	IVU	<Input Channel>			Subscribes to an Input Channel VU-meter
	OVU	<Output Channel>			Subscribes to an Output Channel VU-meter
UNSUBSCRIBE	ALL				Unsubscribe to all VU-meters
	IVU	<Input Channel>			Unsubscribe to an Input Channel VU-meter
	OVU	<Output Channel>			Unsubscribe to an Output Channel VU-meter

Note: INC and DEC commands are replied with a DATA command from the device with the resulting LEVEL value, after it has been increased or decreased. When the INC or DEC command tries to adjust a LEVEL value beyond its minimum or maximum limits, no reply (DATA command) will be produced.

TYPE	PARAM1	PARAM2	PARAM3	PARAM4	DESCRIPTION
DATA	INFO_NAME	"<Device Name>"			Shows the Device Name
	INFO_MODEL	<Device Model>			Shows the Device Model
	INFO_VERSION	<Firmware Version>			Shows the Firmware Version
	INFO_MAC	<Device MAC address>			Shows the Device MAC address
	IP_CONFIG				Shows the Device network configuration. The message will contain **DeviceIP DeviceMask DeviceGateway** (separated by blank characters)
	INFO_IPLIST				Shows the list of clients connected to the Device. The message will contain a list including **ClientNumber ClientIP Client Port** (separated by blank characters)
	INAME	<Input Channel>	<Name>		Shows the NAME (label) of an Input Channel
	ILEVEL	<Input Channel>	<Level>		Shows the current LEVEL of an Input Channel
	IMUTE	<Input Channel>	YES/NO		Shows the current MUTE status of an Input Channel
	IBASSGAIN	<Input Channel>	<Gain>		Shows the current BASS EQ filter GAIN of an Input Channel
	IMIDGAIN	<Input Channel>	<Gain>		Shows the current MID EQ filter GAIN of an Input Channel
	ITREBLEGAIN	<Input Channel>	<Gain>		Shows the current TREBLE EQ filter GAIN of an Input Channel
	IVU	<Input Channel>	<Post Vumeter Level>		Shows the VU-meter value of an Input Channel
	ONAME	<Output Channel>	<Name>		Shows the NAME (label) of an Output Channel
	OLEVEL	<Output Channel>	<Level>		Shows the current LEVEL of an Output Channel

	OMUTE	<Output Channel>	YES/NO		Shows the current MUTE status of an Output Channel
	OGENVOL	<Level>			Shows the current LEVEL of the General Volume
	OMUTEGENVOL	YES/NO			Shows the current MUTE status of the General Volume
	OBASSGAIN	<Input Channel>	<Gain>		Shows the current BASS EQ filter GAIN of an Output Channel
	OMIDGAIN	<Input Channel>	<Gain>		Shows the current MID EQ filter GAIN of an Output Channel
	OTREBLEGAIN	<Input Channel>	<Gain>		Shows the current TREBLE EQ filter GAIN of an Output Channel
	OVU	<Output Channel>	<Post Vumeter Level>		Shows the VU-meter value of an Output Channel
	OSOURCESEL	<Output Channel>	<Input>		Shows the current selected source (input) of an Output Channel. (Input (source) can range from 0 to 16, meaning 0 = no source (silence))
ERROR	<Error ID>	"<Error Description>"			Informs about an error

25 HUB SERIES ERROR CODES

ERROR ID	DESCRIPTION
0	No error. Depending on scenario, can report any of the following: • Device is in TEST MODE • Device is in FACTORY MODE • Last loaded project was incomplete • Now Disconnected
1	Invalid Field MSG
2	Depending on scenario, can report any of the following: • Invalid Field DATA • Invalid Field VALUE • Invalid Field PARAM1
3	Invalid Field CHANNEL
4	Invalid Field VALUE
7	Timeout Waiting PONG
8	CONNECT received while connected
9	DISCONNECT received while unconnected
10	Invalid client (client not connected)
11	Message too long (more than 80 characters)
12	Message with invalid format
13	Depending on scenario, can report any of the following: • Invalid Ping Interval value • Invalid Subscription Interval value
14	Maximum number of clients reached
15	Master Mode active