

CARATTERISTICHE TECNICHE:

- compatibile con DMX512
- gestisce fino a 7 indirizzi DMX
- alimentazione tramite trasformatore esterno da 220Vac da 9/24Vdc-100mA ESTERNO
- Area touch sensibile per selezione funzioni
- Area selezione del colore RGB
- Area selezione della Temperatura di colore del bianco
- Pulsante di Accensione Spegnimento
- Pulsante di avvio effetti automatici
- Slider per master dimmer out
- Connettore estraibile per DMX ed alimentazione
- Fissaggio a parete o su scatola 503
- Led RGB W per anteprima colore generato



DDS.643 è un dispositivo digitale che riesce a gestire piccoli e medi impianti DMX, in modo semplice ed affidabile, dispone di selezione del colore manuale o uno show con effetti preprogrammati, che possono essere richiamati con apposito tasto di avvio.

DDS.643 dispone di una area dedicata per la selezione della temperatura di colore del bianco, con apposito algoritmo software riproduce questa in DMX sui canali RGBW o meglio tramite 3 canali con collegati led da 2700k-4000k-6500k, questa centralina è progettata per lavorare in modo automatico con DDS453 e DDS344, per modo automatico si intende che queste centraline collegate in DMX sull'uscita della DDS.643 si configurano automaticamente con gli indirizzi DMX per accogliere RGBW nel caso della DDS453 e diverse temperature colore nel caso 2700k-4000k-6500k.

Questo autoindirizzamento avviene tramite il protocollo RDM, cioè la DDS643 invia alla DDS453 la personalita ed il canale DMX necessario per accogliere i colori RGBW stesso per la DDS344, che viene di conseguenza indirizzata per ricevere i le 3 temperature colori sui canali corrispondenti, nel seguente ordine:

- DDS453 Canale 1 = Red / Rosso
- Canale 2 = Green / Verde
- Canale 3 = Blue / Blu
- Canale 4 = White / Bianco 4000Kelvin

In questo caso la DDS453 assume gli indirizzi DMX 1,2,3,4.

- DDS344 Canale 1 = 2700Kelvin
- Canale 2 = 4000Kelvin
- Canale 3 = 6500Kelvin

In questo caso la DDS344 assume gli indirizzi DMX 5,6,7.

Questa funzione di indirizzamento automatico permette in modo semplice di installare centraline RGBW e bianco dinamico.

Technical features:

- DMX512 compliant
- max 7 separated DMX addresses
- Power supply 9/24Vdc 100mA
- Touch pad area capacitive
- RGB touch pad Area
- Dynamic white touch pad
- ON / OFF touch pushbutton
- Auto chase touch pushbutton
- capacitive slider for master dimmer out
- Connector for DMX and power supply disconnectable
- Wall mounting or 503
- RGBW led for color preview

DDS.643 it is a DMX generator with easy user interface for small and medium DMX installation, and it's very low cost. The preview RGBW led embedded on the front of this DMX generator, show the preset color or the color CHASE if set. The color selection is always available by touch in the area of the desired color, the intensity of the color out can be set by master dimmer slider.

DDS.643 is designed to work with RGBW module or Dynamic white, the DMX channels out are preset with default color or Kelvin for Dynamic White, as shown below:

- DDS453 DMX Channel 1 = Red
- DMX Channel 2 = Green
- DMX Channle 3 = Blue
- DMX Channel 4 = White 4000Kelvin

Our DMX controller DDS453 constant current or voltage version use the four channels DMX 1,2,3,4.

- DDS344 DMX Channel 1 = 2700Kelvin
- DMX Channel 2 = 4000Kelvin
- DMX Channel 3 = 6500Kelvin

Our constant Voltage controller DDS344 use 3 channel DMX 5,6,7 In case of application dynamic white varying the White slider on the DDS643 the DMX generator change the 3 different white color to match the area color you touch. DDS.643 send atomatically using RDM protocol the personality and DMX address to each board connected.

DDS643 is compatile with any other DMX controller that use DMX channels assignement as in this specification, even if the controller haven't RDM.

DDS.643 Touch area features



Colours RGBW
Preview LED

Colour Pallet

On/off

Auto Effect

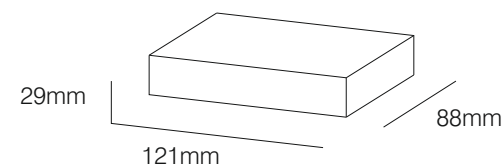
Dimmer slider out

Dinamic White Pallet

touch pad area and software can be personalized on custom request
touch pad area e il programma puo essere personalizzato su richiesta

Ordering code: DDS643
Power supply not included
Codice d'ordine: DDS643
Alimentatore non incluso

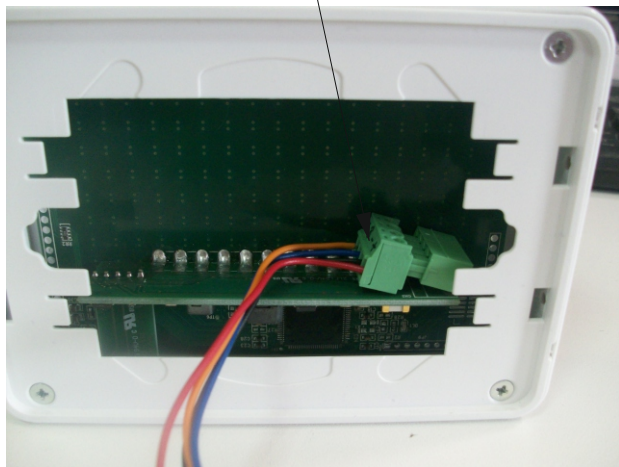
Size DDS643



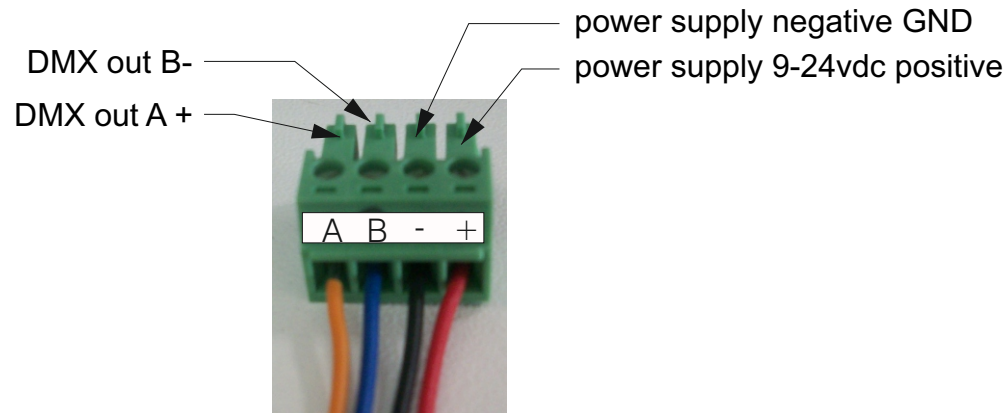
Overled DDS.643

wiring DDS643

Connector location



Female Connector



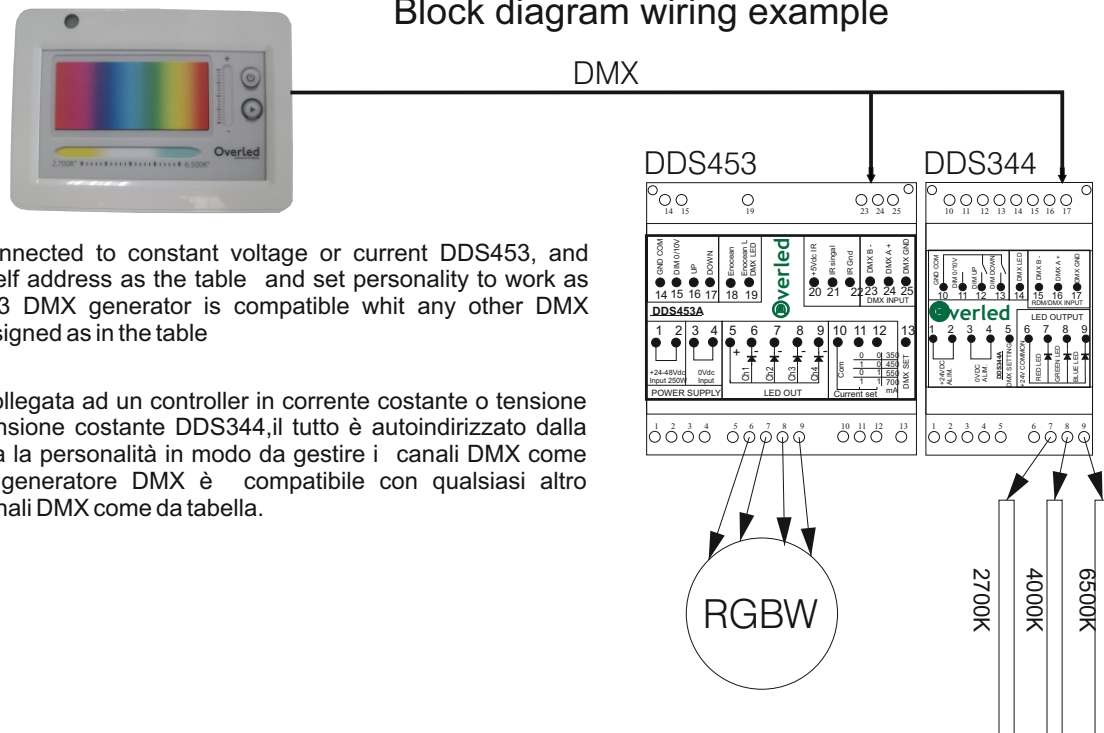
DMX Channel assignement

DMX Address	Function
1	RED
2	GREE
3	BLUE
4	WHITE
5	2700K
6	4000K
7	6500K

In this example DDS.643 is connected to constant voltage or current DDS453, and constant voltage DDS344 and self address as the table and set personality to work as described, in any case DDS643 DMX generator is compatible whit any other DMX controller that use the channel assigned as in the table

In questo esempio DDS.643 è collegata ad un controller in corrente costante o tensione DDS453, e a un controller in tensione costante DDS344, il tutto è autoindirizzato dalla DDS.643 e anche autoassegnata la personalità in modo da gestire i canali DMX come descritto nella tabella. DDS643 generatore DMX è compatibile con qualsiasi altro controller DMX impostato con i canali DMX come da tabella.

Block diagram wiring example



DMX specification standard

Specifiche standard DMX

DMX512

Developed by the Engineering Commission of United States Institute for Theatre Technology (USITT), the standard was created in 1986, with subsequent revisions in 1990 leading to USITT DMX512/1990. DMX512-A In 1998 the Entertainment Services and Technology Association (ESTA) began a revision process to develop the standard as an ANSI standard. The resulting revised standard, known officially as "Entertainment Technology — USITT DMX512-A — Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories", was approved by the American National Standards Institute (ANSI) in November 2004. This current standard is also known as "E1.11, USITT DMX512-A", or just "DMX512-A", and is maintained by ESTA.

Network topology

ADMX512 network employs a multi-drop bus topology with nodes strung together in what is commonly called a daisy chain. A network consists of a single DMX512 controller — which is the sole master of the network — and one or more slave devices. For example, a lighting console is frequently employed as the controller for a network of slave devices such as dimmers, fog machines and intelligent moving lights. Each slave device has a DMX512 "IN" connector and, in many cases, a DMX512 "OUT" connector (sometimes marked "THRU") as well. The controller, which has only an OUT connector, is connected via a DMX512 cable to the IN connector of the first slave. A second cable then links the OUT or THRU connector of the first slave to the IN connector of the next slave in the chain, and so on. The final, empty, OUT or THRU connector of the last slave on the daisy chain should have a terminator plugged into it. A terminator is a stand-alone male connector with a built-in resistor. The resistor — typically 120 Ohms to match the cable characteristic impedance, is connected across the primary data signal pair. If a secondary data pair is used, then another termination resistor is connected across it as well. Although simple systems, i.e., systems having few devices and short cable runs, may work reliably without a terminator, it is considered good practice always to use a terminator at the end of the daisy chain. Some DMX devices have built-in terminators that can be manually activated with a mechanical switch or by software, or by automatically sensing the absence of a connected cable. Each DMX network is called a "DMX universe". Large control desks (operator consoles) may have the capacity to control multiple universes, with an OUT connector provided for each universe.

Electrical

DMX512 data are sent using EIA-485 voltage levels. However, quoting from E1.11, "The electrical specifications of this Standard are those of EIA-485-A, except where specifically stated in this document. Where a conflict between EIA-485-A and this document exists, this document is controlling as far as this Standard is concerned." DMX512 is a bus network no more than 1200 meters long, with not more than 32 devices on a single bus. If more than 32 devices need to communicate, the network can be expanded across parallel buses using DMX splitters. Network wiring consists of a shielded twisted pair, with a characteristic impedance of 120 Ohms, with a termination resistor at the end of the cable furthest from the controller to absorb signal reflections.

Connectors

DMX512 1990 specifies that where connectors are used, the data link shall use five-pin XLR style electrical connectors (XLR-5), with female connectors used on transmitting (OUT) ports and male connectors on receiving ports. DMX512-A (E1.11) requires the use of an XLR-5 connector, unless there is insufficient physical space on the device, in which case an XLR-5 adapter shall be supplied. DMX512-A (E1.11-2008) allows the use of eight-pin modular (RJ-45) connectors for fixed installations where regular plugging and unplugging of equipment is not required. Some DMX512 equipment manufacturers employ non-compliant connectors and pinouts; the most common of these is the three-pin XLR connector, since the electrical specification currently only defines a purpose for a single wire pair. There is risk of equipment damage if a novice unfamiliar with lighting technology accidentally plugs XLR 3-pin DMX into an audio device, since the DMX signal voltages are much higher than what audio equipment normally uses. Also, devices are sometimes fitted with four-pin connectors when both communications and power are sent through a common cable.

The RJ-45 connector pinout matches the conductor pairing scheme used by Category 5 (Cat5) twisted pair patch cables. The avoidance of pins 4 and 5 helps to prevent equipment damage, if the cabling is accidentally plugged into a single-line public switched telephone network phone jack. Cabling for DMX512 was removed from the standard and a separate cabling standards project was started in 2004. Two cabling standards have been developed, one for portable DMX512 cables (ANSI E1.27-1 - 2006) and one for permanent installations (draft standard BSR E1.27-2). This resolved issues arising from the differences in requirements for cables used in touring shows versus those used for permanent infrastructure. The electrical characteristics of DMX512 cable are specified in terms of impedance and capacitance, although there are often mechanical and other considerations that must be considered as well. Cable types that are appropriate for DMX512 usage will have a nominal characteristic impedance of 120 ohms. Cat5 cable, commonly used for networking and telecommunications, has been tested by ESTA for use with DMX512A. Also, cables designed for EIA485 typically meet the DMX512 electrical specifications. Conversely, microphone and line level audio cables lack the requisite electrical characteristics and thus are not suitable for DMX512 cabling. The significantly lower impedance and higher capacitance of these cables distort the DMX512 digital waveforms, which in turn can cause irregular operation or intermittent errors that are difficult to identify and correct.

XLR-5 pinout

1. Signal Common
2. Data 1- (Primary Data Link)
3. Data 1+ (Primary Data Link)
4. Data 2- (Optional Secondary Data Link)
5. Data 2+ (Optional Secondary Data Link)

RJ-45 pinout

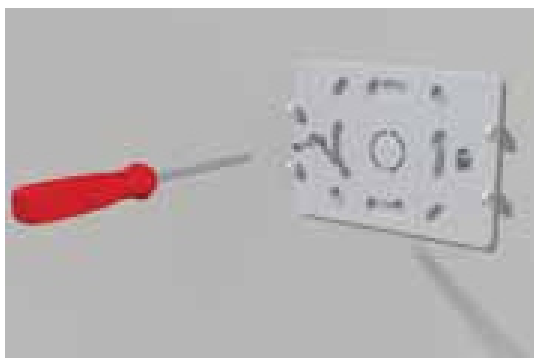
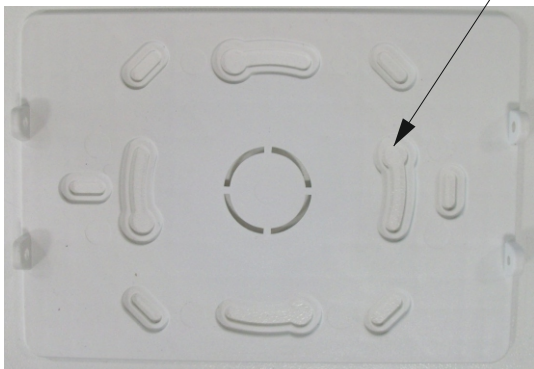
1. Data 1+
2. Data 1-
3. Data 2+
4. Not Assigned
5. Not Assigned
6. Data 2-
7. Signal Common (0 V) for Data 1
8. Signal Common (0 V) for Data 2



DDS.643 mounting

Wall mounting

wall mounting or 503 panel



in Wall mounting



503

D.60

