Trex Pro ART NET to SPI converter 8 channel

TrexPro

MADE IN ITALY

TREXPRO e un prodotto ideale per applicazioni dove sono applicati diversi canali per il controllo di led, infatti posso essere serializzati fino a 3072 canali sulla stessa porta di uscita, il TREXPRO dispone di 8 porte di uscita sincrone (SPI) queste permettono di trasmettere 3072 canali a 45 fps, rendendo questo dispositivo decisamente piu veloce del DMX.
TREXPRO dal lato del controllo è visto come se fosse un nodo ART NET con 24 universi, permettendo con un unico cavo ethernet di controllare circa 24000 canali a 45fps.E' possibile anche controllare 2040 canali a 60fps.
Ogni modulo a led utilizzato con TREXPRO si autoindirizza e riamplifica il segnale di dato e clock, permettendo di estendere linee fino a 35 metri con 3072 canali, occorre solo rilanciare la alimentazione dei moduli led che puo essere da 12 fino a 48vdc.
Ogni uscita del TREXPRO è protetta da errori di cablaggio elettrico e da sovratensioni applicate sulle uscite. Ogni connettore utilizzato è del tipo Ip67.
TREXPRO e progettato per applicazioni in door e out door, Ip65 temperatura ambiente -25/80 gradi C, contenitore pressofuso in allumini 313x407x157.
E' possibile controllare oltre che a dispositivi SPI anche dispositivi del tipo:
WS2811/WS2812/WS2812B/APA104/APA106/SK6812 .

TREXPRO product is suited for application in video Wall or for a large number of led module that use many DMX universe, this unit receive ARTNET and convert to sincronous (SPI) serial mode, using CK and DATA, this allow very fast communication between led driver.
T-Rex Pro have 8 channel, capable to drive up to 3072 channel each output, at very high speed 45fps or 2040 channel at 60fps, the synchronous signal (CK,DATA) is amplified by luminaire and it is also self addressed by each light segment connected. The power supply for the luminaire must applied externally and can be from 12 up to 48 vdc.
The distance from T-Rex Pro and luminaire must be less then 15 mt., a female IP67 M8 connector is provided cable with 0.5mm must be used for signal, power supply is applied on a 3 pole for power supply (100-260vac, or 350 vdc max.). Skin top for Ethernet cable is provided for connection to network at 100Mb.
Each Trexpro can be connected to main ethernet switch, each SPI output is protected from high voltage and miswiring.
The SPI port can be also converted to be used with led driver :
WS2811/WS2812/WS2812B/APA104/APA106/SK6812 .
The SPI protocol, is very high speed then DMX, with TREXPRO the DMX console can see SPI like DMX but 5 time faster, 2040 channel in 60fps, usually DMX is 40 fps on 512 channel.
TREXPRO is ip65 can work out door or in door from -25 up to 80 degree C , aluminium die cast case 313x407x157 mm.

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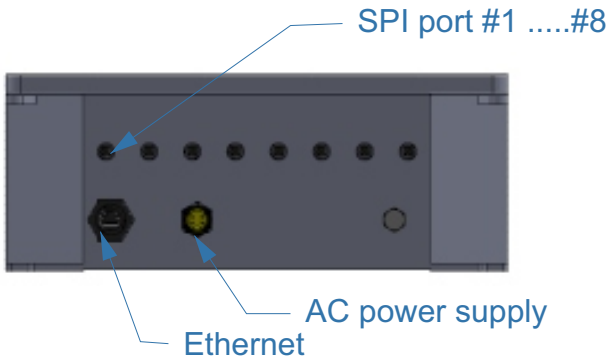
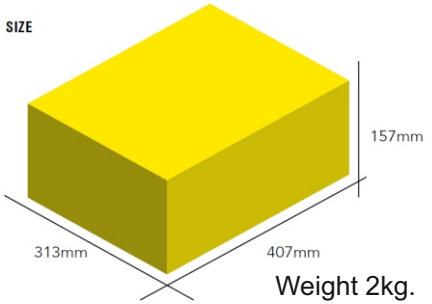
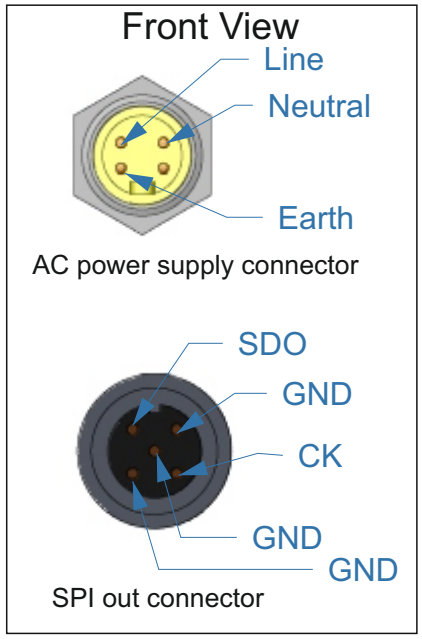
Connector location and electrical

TECHNICAL SPECIFICATION
8 synchronous port
max 1024 RGB pixel per port
Total pixel per unit 8192
Total DMX address 24576
Total universe per T-Rex Pro 48
Ethernet 100mb interface
ART NET compatible
Video RAPTOR compatible (video converter to ART NET 3000 DMX universe) - all Artnet sw
Power supply 100-260vac 50-60hz 150-350vdc 30W
IP rating 65
Display setting
Refresh rate 60 fps max
T-REX PRO
Operating temperature -20 up to + 80
Die cast aluminium box ip 65, very robust





Weight 2kg.



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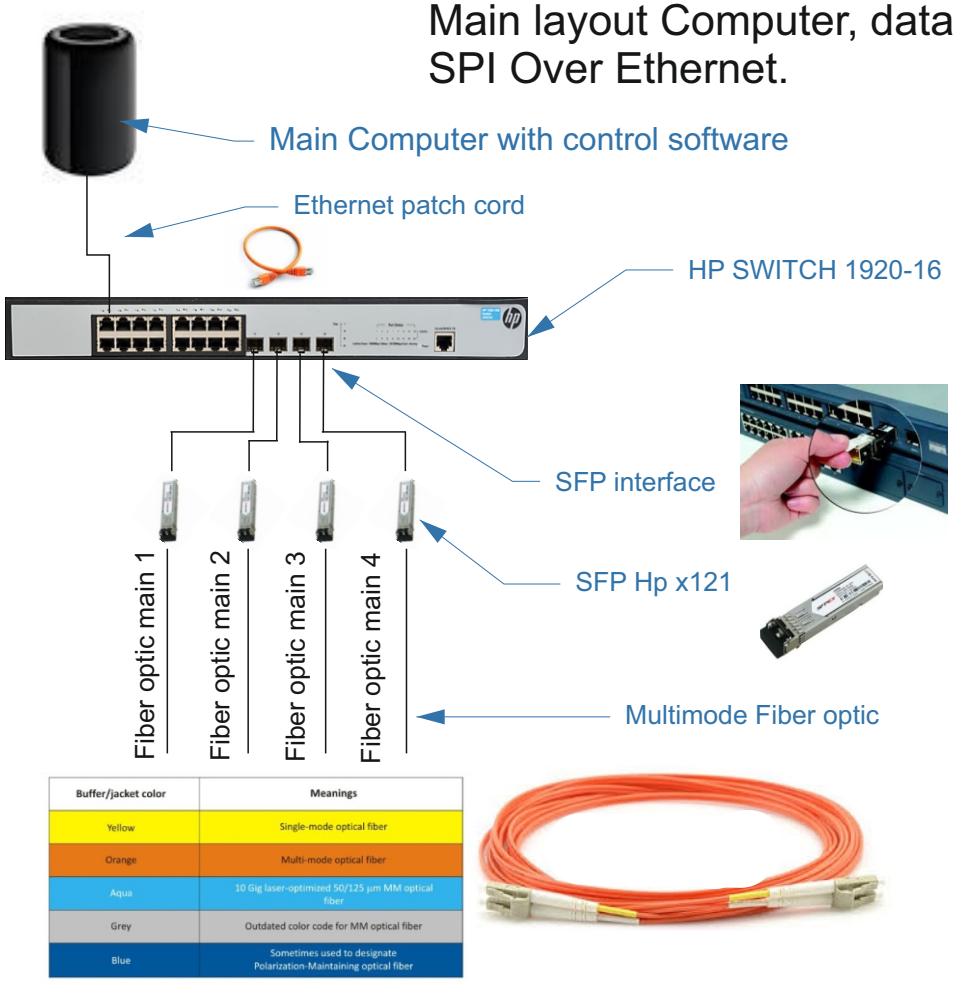
Main layout Computer, data center fiber optic BUS for longer data distribuition, SPI Over Ethernet.



Buffer/jacket color	Meanings
Yellow	Single-mode optical fiber
Orange	Multi-mode optical fiber
Aqua	10 Gig laser-optimized 50/125 µm MM optical fiber
Grey	Outdated color code for MM optical fiber
Blue	Sometimes used to designate Polarization-Maintaining optical fiber

Multimode SFP
Multi-mode fiber (MMF) uses a much bigger core and usually uses a longer wavelength of light. Because of this, the optics used in MMF have a higher capability to gather light from the laser. In practical terms, this means the optics are cheaper. The common multimode SFPs (MMF SFPs) work in 850nm wavelength and is only used for short distance transmission reaching 100m and 500m. Though it's not able to transport for long distance, it can transport many kind of optical signals. Their color coded bale clasp and color arrow on label are black and the used fiber optic patch cord is usually orange.

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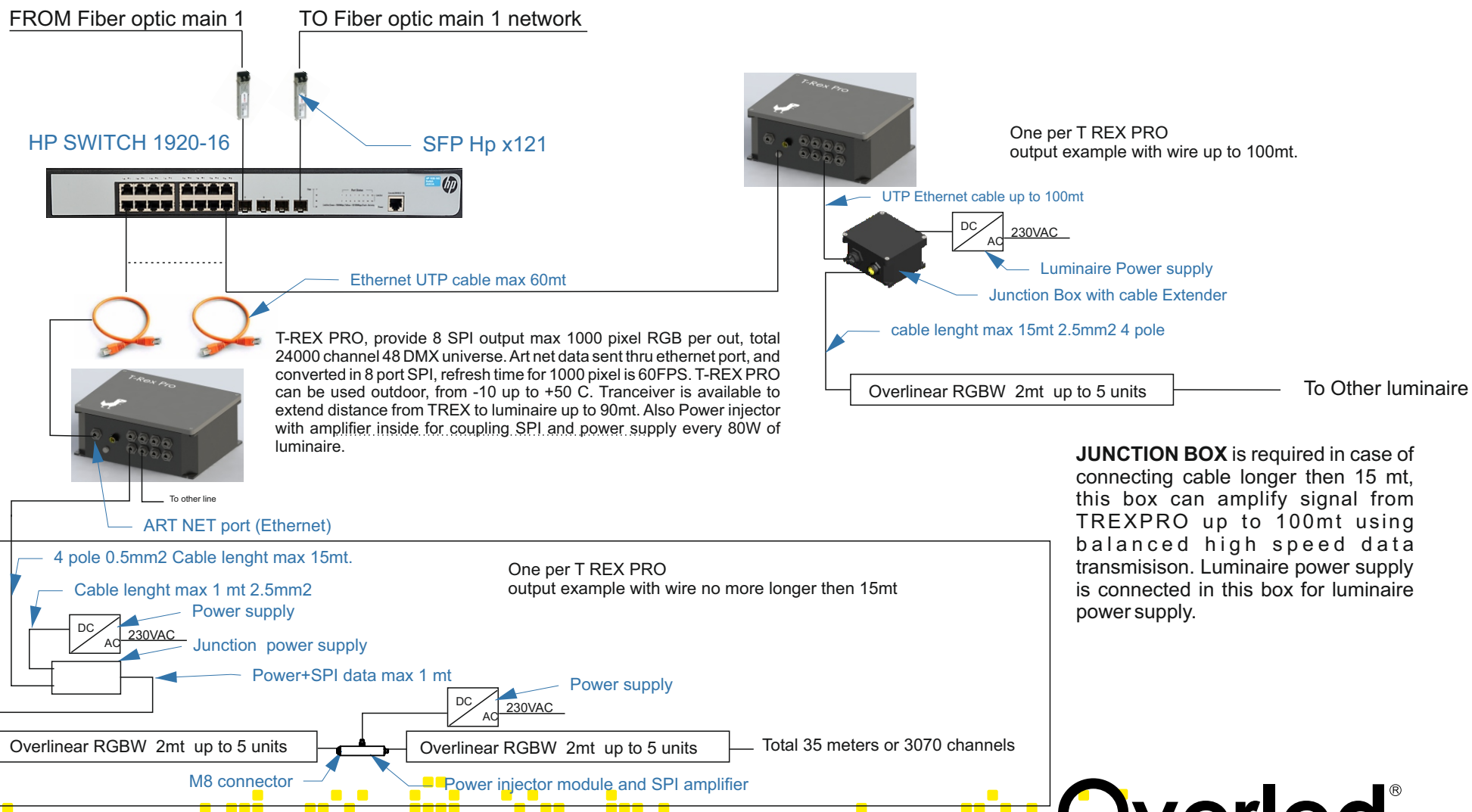
Main layout of 1st Main fiber optic BUS and overlinear RGBW led bar



JUNCTION BOX is required in case of connecting cable longer then 15 mt, this box can amplify signal from TREXPRO up to 100mt using balanced high speed data transmisison. Luminaire power supply is connected in this box for luminaire power supply.

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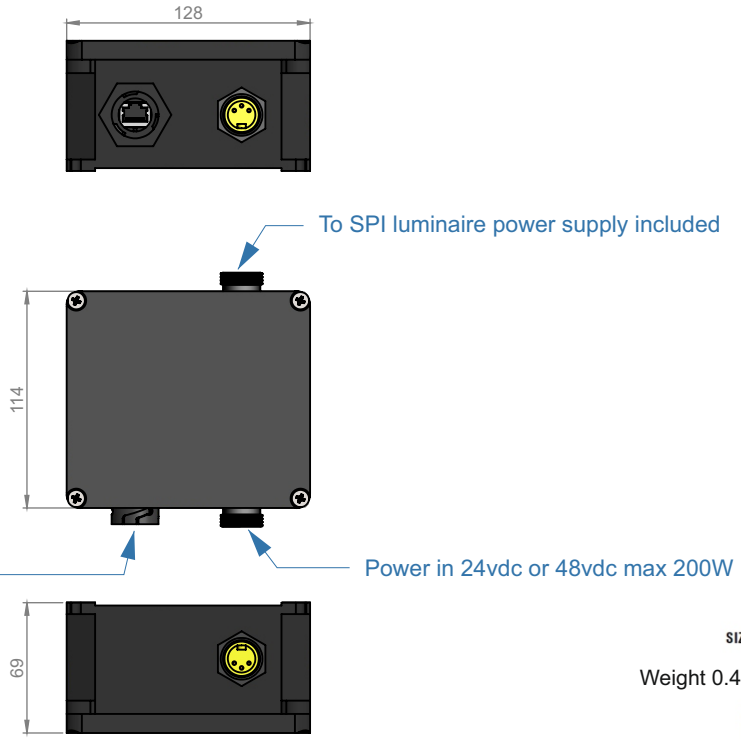
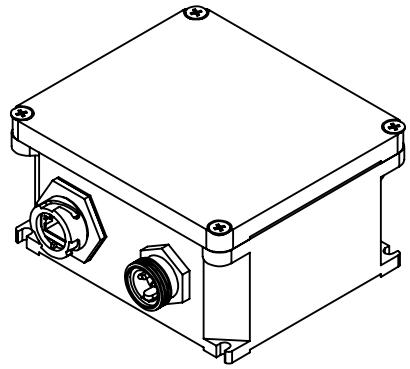
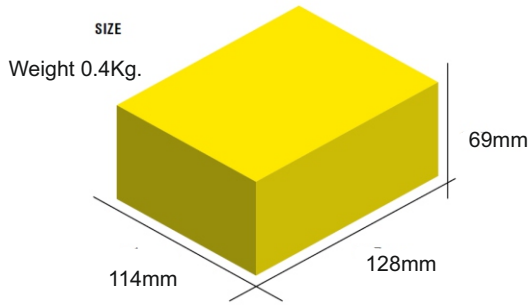
Junction BOX SPI

Junction BOX is used as cable extender from TREX PRO to first luminaire, this unit need power supply that used for luminarie, the voltage range is 12-48vdc, max current 150W, Ip67 connectors are provided for power supply and luminaire.
The cable from Juction box and luminaire must be less then 15mt, and cable section 2.5mm, for power supply and data signal.
The box housing is die cast Ip65 rating.

Ambient temperature -25/80 degree C.
Power consumption of Junction box @24vdc 200mA
Connector max current 6A
UTP Ethernet cable lenght max 100mt







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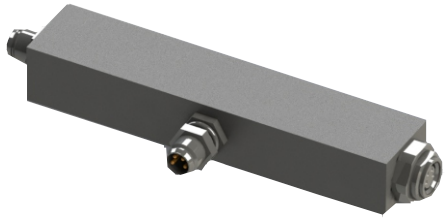
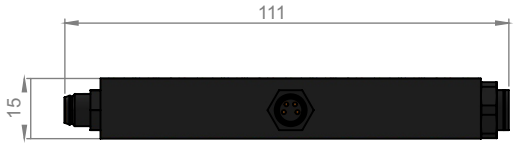
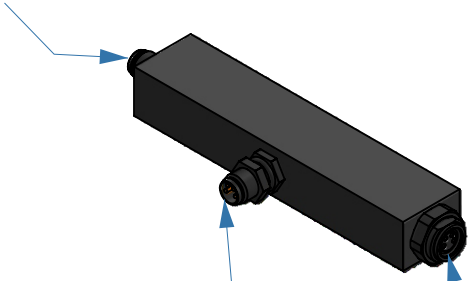
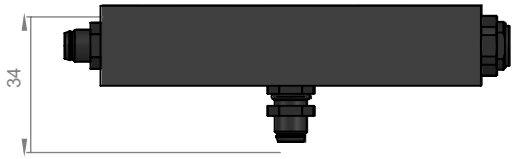
Power injector in ip65 boxed





To next luminaire





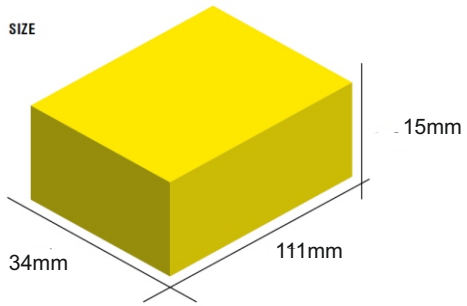
Input Data signal from luminaire

Power supply input

Power Injector is used for coupling to power supply a new line of luminaire in daisy chain, amplifing data and clock signal from the previous luminaire to the next.
This module is required every time a power supply is needed to extend luminaire line,the number of meter depend on the luminaire specification, and the maximum controllable channels from TREXPRO.

The box housing is plastic mould Ip65 rating.

Ambient temperature -25/80egree C.
Power consumption of Junction box @24vdc 100mA
Connector max current 4A m8 type
Power supply input 12 up to 48Vdc.



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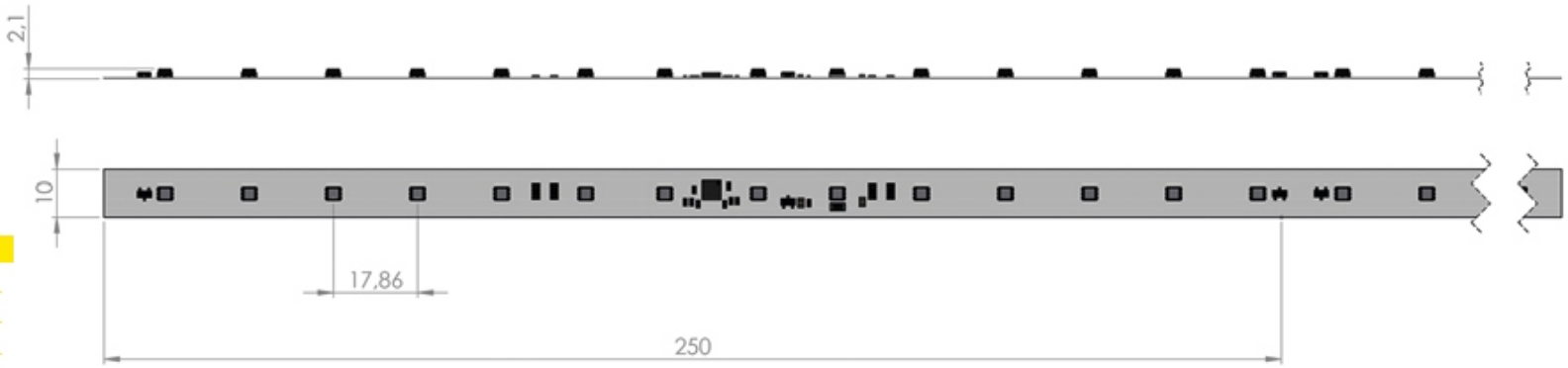
Overlinear RGB FLEX STRIP led with SPI for Trex Application



TECHNICAL SPECIFICATION	unit	Typical
ELECTRICAL		
Power supply	Vdc	24
Total current	A	1,1
Total power	W	26
Current per meter	A	0,22
Power per meter	W	5,5
THERMAL		
Operating Temperature TC	C°	75
Life Time (25C° PCB surface)	h/24	55000

	unit	Typical
OPTICAL		
Led per meter		56
Led model		3528
Light emission angle		120
Pixel per meter		4
Luminous efficiency	W/m	32
Luminous intensity per meter/Red	cd/mt	33
Luminous intensity per meter/Green	cd/mt	55
Luminous intensity per meter/Blu	cd/mt	15

	unit	Typical
MECHANICALS		
Width	mm	10
Lenght	mt	4,5
Cutting unit	mm	250
		Max
Pull Force	N	1
Pelling resistance	N/mm	0,8
Flexible resistance	Cycles	8
Max curve	mm	100

DDS900-SPI is a 5,5 W meter led strip with 56 led 3528 RGB per meter. DDS900-SPI for MBI use SPI protocol to control each led individually. To produce our indoor flexible LED strips, we use RGB high quality LEDs, gold plated flexible double side PCB and constant current control inside the LED strip. Thermal conductive adhesive tape guarantees perfect heat transfer to the mounting suface. All of our product features guarantee extra long lifetime and stable performance. Our flexible LED light strips are designed for long term professional lighting applications and perfectly fit in any linear applications.

This Flexible strip led can be fitted in silicone extrusion tube 1515, up to 5 meters.

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Trex Pro ART NET to SPI converter 8 channel

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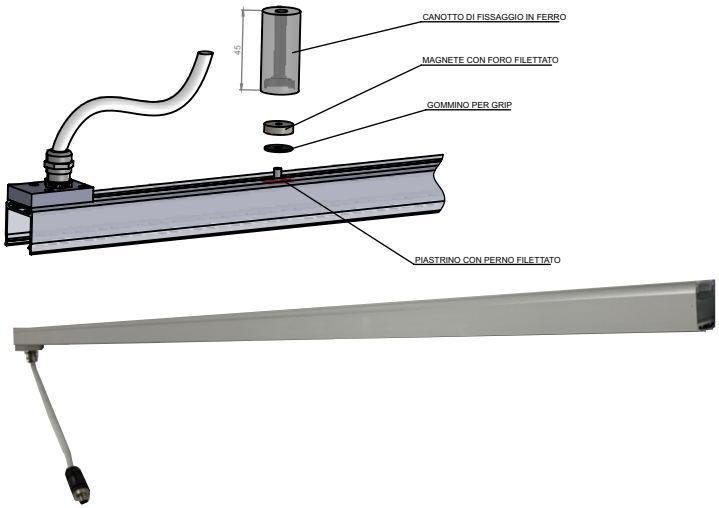
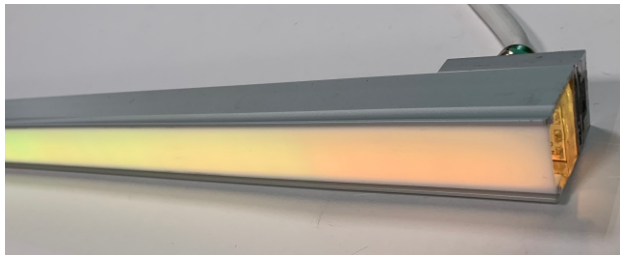
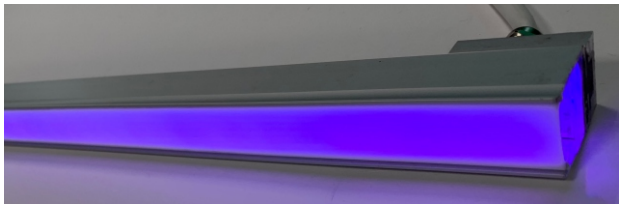
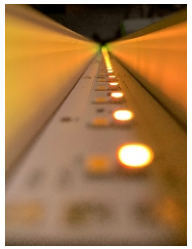
Overlinear Aluminium bar RGBW led with SPI for Trex Application

Overlinear, it is a LED bar controlled by pixel of 9cmt RGBW, 14w with SPI interface control, connector for input and for output is provided on the luminaire, magnetical system is available for easy mounting on the installation. Each module it work with Scramble PWM, grey scale curve, hi frequency per second availble up to 60fps.
Standard Size available :
960 mm
1440 mm
1920mm
Aluminium Body anodisation color silver,black,red,deep silver, blue.
Painted on request.









Electrical:
Power supply 18-26vdc
Power consumption 15W
Data in and Clock in signal 5vdc protected against miswiring
Data out and Clock out regenerated 5vdc
Connector ip67 max current 6A.
Cable output side or bottom available
Plastic cover satinated or Resin Doming
Ambient temperature range -10/85 degree Thermal protection provided.

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