FXT10

DATASHEET
SPECIFICATIONS

PIXEL STRIP SERIES | ARCHITECTURAL LED TAPE

The FXT is a high-performance flexible LED solution designed for dynamic architectural and entertainment lighting applications. It delivers precise pixel-level control with smooth, consistent illumination across linear and curved surfaces.

It enables seamless integration into edges, coves, and custom forms, supporting clean installations. Its low-profile design makes it suitable for both subtle accents, and large-scale visual features.

Available in multiple colour configurations, including RGBW, and IP20 or IP65 ratings, so it can adapt both indoor and outdoor environments.

At a glance

Emitters

RGBW
(W = 2700K, 3000K, 4000, 6000K, 7000K)

OR

RGB

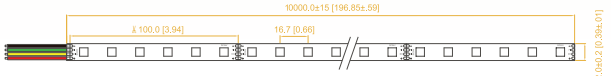
OR

Dynamic White (DW)
(2500K to 12000K)

OR

White
(2700K, 3000K, 4000K, 6000K, 7000K)

Dimensions



Controls

Stream

Voltage

24V DC

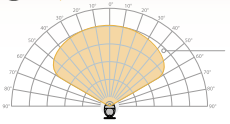
Protection

Ingress – IP20
Ingress – IP65

Temperature

-20°C to 60°C
-4°F to 140°F

Optics



Drawing

FIXTURE PRODUCT CONFIGURATOR

Prefix	Model	IP Rating	Length	LED Colour	White CCT	Control	Beam Angle	Power	Voltage
FXT	10 – 10 pixels	20 – IP20 65 – IP65	100 – 100mm 500 – 500mm 1000 – 10000mm 2500 – 2000mm 5000 – 5000mm 10000 – 10000mm	RGBW DW – Dynamic White (2500K ≈ 12000K) W – White (2200K ≈ 7000K)	27K – 2700K 30K – 3000K 40K – 4000K 60K – 6000K 70K – 7000K	S – SPI X – X-Stream	120 – 120°	15 – 15.8W	24 – 24V DC

EXAMPLE: FXT – 10 – 65 – 1000 – RGBW – 27K – X – 120 – 15 – 24

CABLE PRODUCT CONFIGURATOR

Prefix	Model	Length	Connector
FXT	L – Leader T – Tail BW – Bare Wires	150 – 150mm C – Custom Length *eg: C – C#1250	MC – Male Connector FC – Female Connector

EXAMPLE: FXT – L – 150 – FC

LEADER CABLE OPTIONS

FXT, Leader Cable, 150mm, Male Connector FXT-L-150-MC
FXT, Leader Cable, 150mm, Female Connector FXT-L-150-FC
FXT, Leader Cable, 1000mm, Male Connector ..... FXT-L-C#1000-MC
FXT, Leader Cable, 1500mm, Female Connector ..... FXT-L-C#1500-FC

TAIL CABLE OPTIONS

FXT, Tail Cable, 150mm, Male Connector FXT-T-150-MC
FXT, Tail Cable, 150mm, Female Connector FXT-T-150-FC
FXT, Tail Cable, 1000mm, Male Connector ..... FXT-T-C#1000-MC
FXT, Tail Cable, 1500mm, Female Connector ..... FXT-T-C#1500-FC

BARE WIRES CABLE OPTIONS

FXT, Bare Wires, 150mm FXT-BW-150
FXT, Bare Wires, 350mm ..... FXT-BW-C#350
FXT, Bare Wires, 1000mm ..... FXT-BW-C#1000
FXT, Bare Wires, 1500mm ..... FXT-BW-C#1500

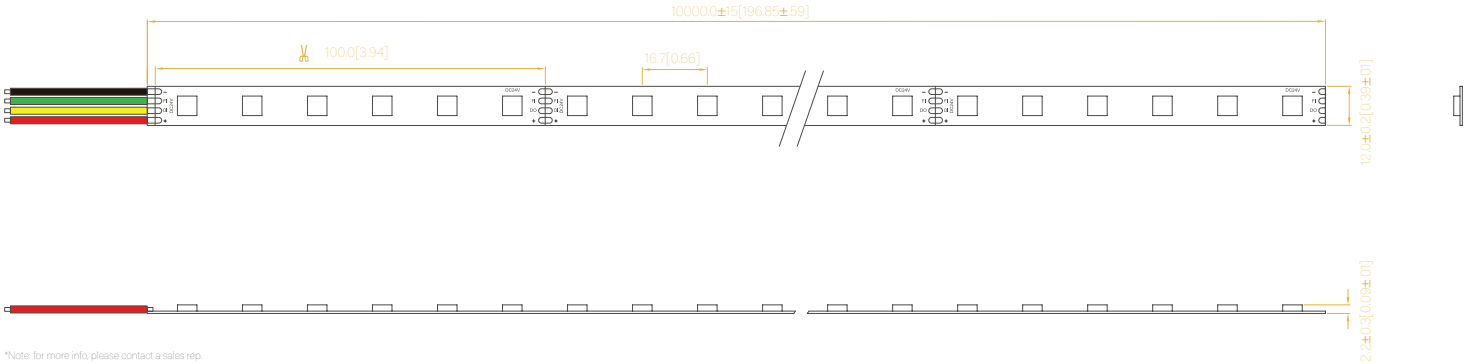
FIXTURE SPECIFICATIONS

ELECTRICAL	POWER CONSUMPTION	15.8W PER METER
	OPERATING VOLTAGE	24V DC
	OPERATING TEMPERATURE	-20°C TO 60°C (-4°F TO 140°F)
	STORAGE TEMPERATURE	-20°C TO 70°C (-4°F TO 158°F)
PHYSICAL	DIMENSIONS	L: 10000MM – W: 12MM
	HOUSING MATERIAL	FLEXIBLE PBC
	WEIGHT	0.025KG/M
	CONNECTORS/CABLES	MALE & FEMALE CONNECTORS, LEADER, TALE, AND BARE WIRES
	IP RATING	IP 22 & IP 65
	MOUNTING OPTIONS	3M ADHESIVE TAPE
	MIN. CUTTABLE LENGTH	50MM (12V) – 100MM (24V)
	PIXELS/M	10 PIXELS/M
	CRI	>90
	CONNECTION	4 IN 1 RGBW
	QUANTITY(PCS)/M	60
	DATA MAXIMUM RUN LENGTH	76.8METERS @ 10PIXELS/M – 6 UNIVERSES
	POWER MAXIMUM RUN LENGTH	10 METERS
	MINIMUM BENDING DIAMETER	50MM
OPTICAL	BEAM ANGLE	120°
	COLOUR RANGE	WHITE (2700K, 3000K, 4000K, 6000K, 7000K), DYNAMIC WHITE (2200K – 7000K)
	ACCURATE COLOUR CONTROL	RGBW CONFIGURATIONS WITH SELECTABLE CCT
	LED TYPE	5050 SMD LEDS
	LUMEN OUTPUT	546.6LM/M (RGBW)
DIMING & CONTROL	CONTROL PROTOCOLS	X-STREAM PROTOCOL WITH DATA REDUNDANCY AND SPI
	DIMMING RESOLUTION	8 BIT RESOLUTION DOING 65536 STEP WITH BUILT-IN GAMMA 2.2, 12-BIT, 14-BIT, 16-BIT.
FIXTURE RATING & CERTIFICATIONS	CE / IP20 / IP65	
LIMITED WARRANTY	5 YEARS *Extendable warranty available	

FIXTURE DIMENSIONS

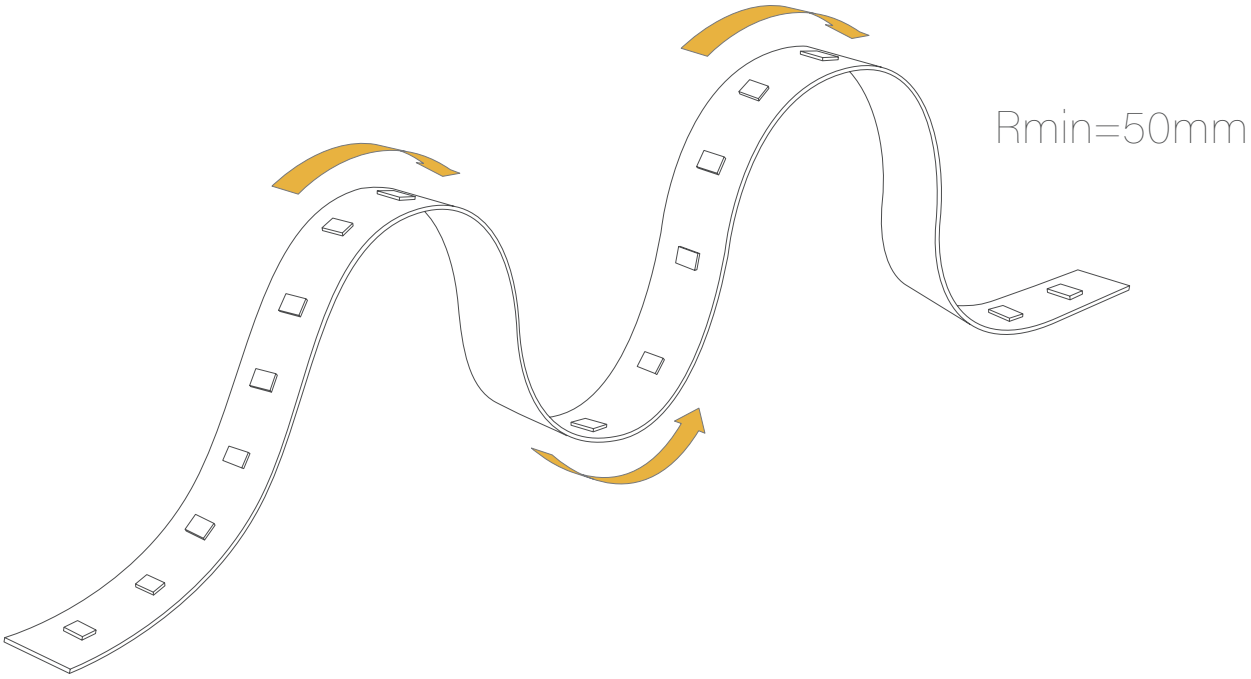
FXT10 DIMENSIONS

Unit: mm[inch]



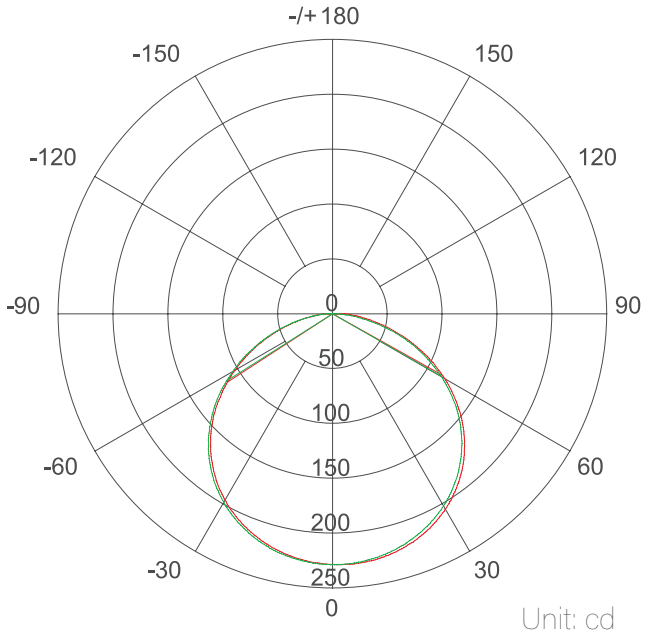
*Note: for more info, please contact a sales rep.

FXT10 MINIMUM BENDING DIAMETER



CHARACTERISTIC

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

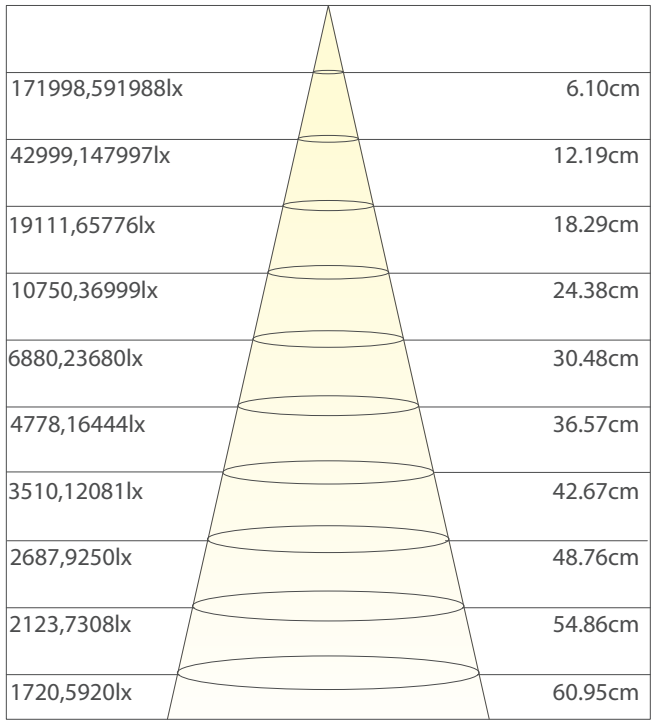


Unit: cd
- C 0 /180,117.8°
- C 90/270,117.7 °

AVERAGE BEAM ANGLE(50%): 117.8°

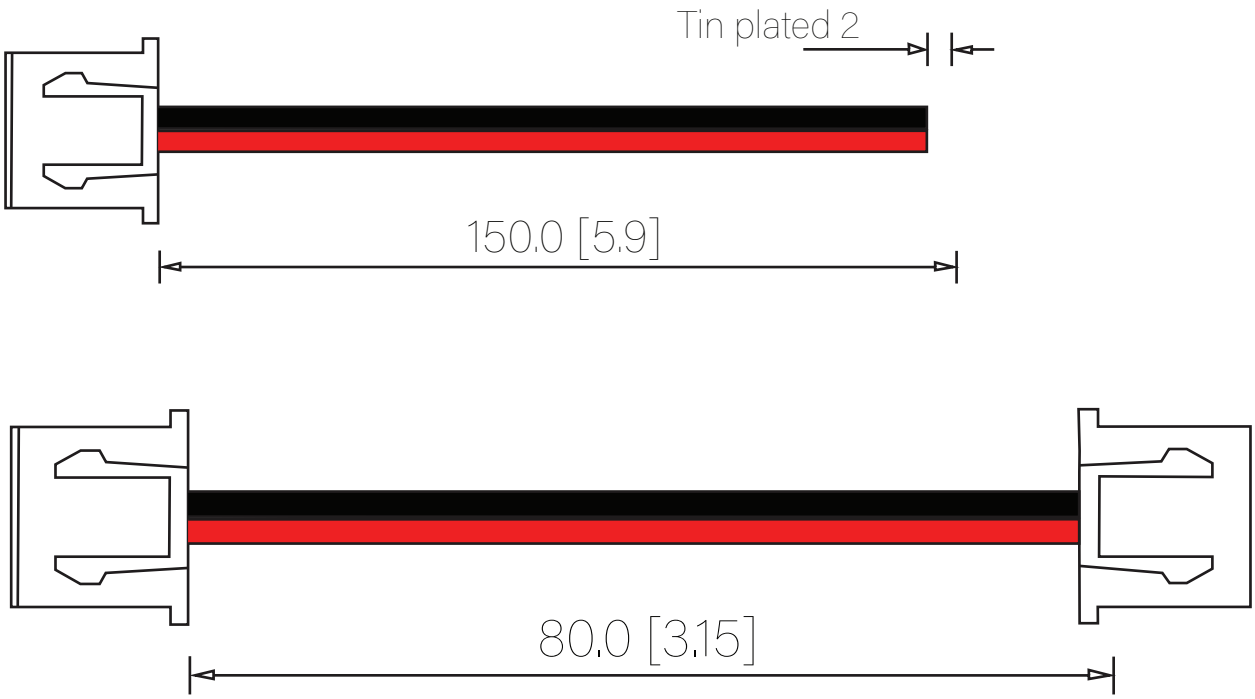
AVERAGE ILLUMINANCE

Flux Out: 512.5lm



Height	Eavg, Emax	Beam Angle: 113.45°	Diameter
0.02m	171998,591988lx		6.10cm
0.04m	42999,147997lx		12.19cm
0.06m	19111,65776lx		18.29cm
0.08m	10750,36999lx		24.38cm
0.10m	6880,23680lx		30.48cm
0.12m	4778,16444lx		36.57cm
0.14m	3510,12081lx		42.67cm
0.16m	2687,9250lx		48.76cm
0.18m	2123,7308lx		54.86cm
0.20m	1720,5920lx		60.95cm

CABLES AND CONNECTORS

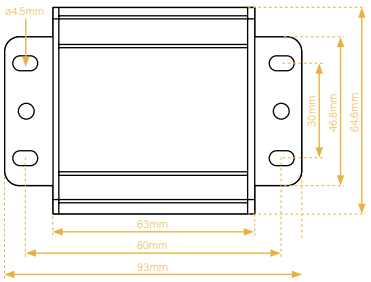


PXT/R BOOSTER

The PXT and PXR qork together as a transmitter/receiver pait ro allow you yo extend SPI signals up to 100 metres. The units convert the standard API signal to/from a differential pair to allow the signal to travel this distance while minimising interference

Wide input voltage range allows support for many LED products, and the compact size makes it easy to accomodate in installations.

D1 and B1 inputs support standard data (D1) and backup data (B1) for pixel protocols supporting data redundancy.



PXT TRANSMITER	INPUT VOLTAGE	12V – 48V DC
	AMP	6A MAX
	INPUT	SPI OR X-STREAM FROM CONTROLLER OR LEDS
	OUTPUT	X-STREAM DIFFERENTIAL SIGNAL
	IP RATING	IP20
PXT RECEIVER	INPUT VOLTAGE	12V – 48V DC
	AMP	6A MAX
	INPUT	X-STREAM DIFFERENTIAL SIGNAL
	OUTPUT	SPI OR X-STREAM TO LEDS
	IP RATING	IP20

X-STREAM® TECHNOLOGY

X-Stream® Technology is LEDCTRL's premium communication and power delivery platform, built on the advanced UCS7604 driver IC. It is designed to deliver high speed data transmission, exceptional reliability, and superior visual performance across large-scale and demanding lighting installations.

At its core, the system integrates intelligent signal processing, high-precision constant current control, and advanced error-detection mechanisms to ensure stable operation and consistent output, even in complex or long-distance configurations.

KEY FEATURES

Built-in Redundancy

X-Stream® incorporates dual-channel signal transmission with intelligent fault detection. In the event of a pixels or signal failure, the system automatically bypasses the faulty node and continues data transmission without interruption.

- Dual signal channels with real-time monitoring
- Automatic switching between channels in case of failure
- Fault identification accuracy greater than 99%
- No visible disruption during signal switching

This ensures continuous operation and eliminates single-point failures across the installation.

Auto-Addressing

Fixtures require no manual addressing or pre-configuration. Each unit automatically interprets incoming data, allowing for flexible installation and simplified maintenance.

- Plug-and-play installation
- No addressing sequence required
- Fixtures can be installed in any order

This significantly reduces installation time and minimises the risk of configuration errors.

High-Speed Communication

X-Stream® supports high-speed PWM data transmission, enabling smooth and dynamic lighting effects across long runs.

- Transmission speeds: 800 Kbps and 1.6 Mbps
- Supports high frame rates and fast data refresh
- Capable of filming environments up to 533 FPS without flicker
- Stable performance regardless of frame frequency

This ensures high-quality visual output suitable for media façades, dynamic content, and camera-facing applications.

Advanced Dimming Performance

The system supports multiple dimming resolutions, delivering precise brightness control and smooth transitions across the full output range.

- 8 / 12 / 14 / 16-bit dimming options
- Up to 65,536 levels of greyscale
- Built-in gamma correction (8-bit to 16-bit equivalent)
- Seamless dimming from 0% to 100%

High refresh rates (up to 16 kHz) further ensure stable, flicker-free performance and accurate colour rendering.

Signal Integrity & Reliability

X-Stream® integrates advanced anti-interference and signal enhancement technologies to maintain reliable communication in challenging environments

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- S-AI anti-interference technology reduces radiation and conduction interference
- Enhanced signal receiving and transmission stability
- Consistent performance across varying environmental conditions
- Extended standard spacing between fixtures (>15 m)

These features ensure robust operation in large-scale and electrically complex installations.

Data Booster Technology

To support extended installation distances, X-Stream® incorporates data boosting capabilities both within fixtures and via external booster units.

- Extends communication distance up to 100 m between fixtures
- Maintains signal integrity over long data runs
- Supports large-scale linear and distributed installations

This allows for greater design flexibility without compromising system performance.

Long-Distance Power Distribution

X-Stream® systems are designed to support extended power runs through intelligent power management and integrated hardware.

- AC fixtures with built-in, replaceable power supplies
- High power factor for efficient energy distribution
- Managed startup and inrush current control
- Smart load regulation for stable operation
- Supports continuous runs of up to 96 m of linear product

This ensures reliable power delivery across extended fixture runs while maintaining system safety and efficiency.

System Overview

By combining high-speed communication, intelligent redundancy, and advanced signal processing, X-Stream® Technology enables the creation of large-scale, high-performance lighting systems with minimal installation complexity and maximum operational reliability.

Its integration of the UCS7604 chipset ensures that each fixture operates with precision, consistency, and resilience, making it suitable for demanding architectural, façade, and media lighting applications.