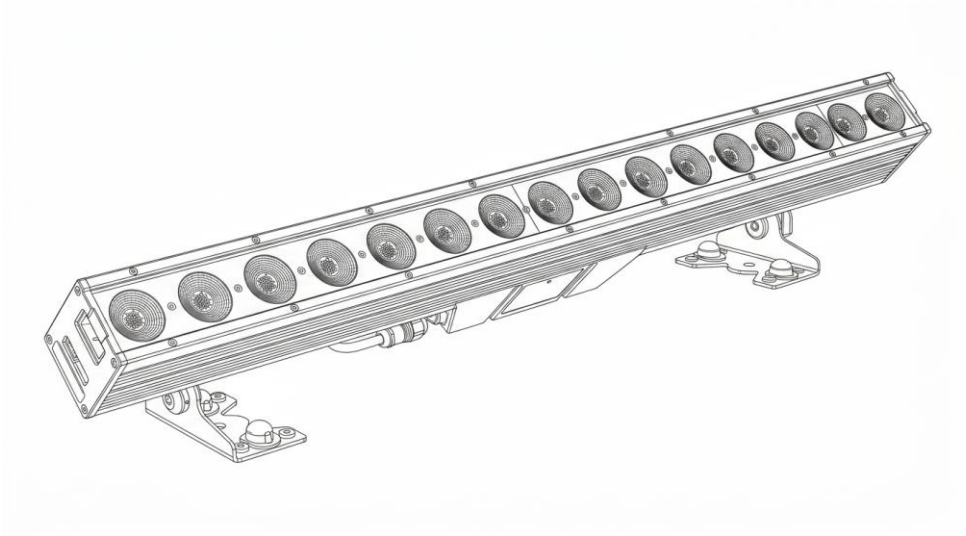
MOBI PIXEL BAR IP

16 × 20W RGBA WIRELESS & WATERPROOF LED PIXEL BAR



MODEL **Mobi Pixel Bar IP**
MANUFACTURER **FX Lighting**
PROTECTION **IP65**
POWER **240 W**

USER'S GUIDE

(Read the instructions carefully and keep them for future reference)

FXLIGHTING
FX-LIGHTING.COM

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01 Product Overview & Technical Parameters

Thank you for purchasing the Mobi Pixel Bar IP from FX Lighting. Every product has been well tested and has shipped in perfect operating condition. When receiving our products, carefully check the shipping carton for damage that may have happened during transport. Inspect the fixture for damages or missing accessories. If parts are missing or the fixture has been damaged, please report this.

The Mobi Pixel Bar IP has been upgraded a number of times, improving the mixed light effect, size, weight and functionality, with higher lumen output, additional LEDs and optimised optical design and excellent beam alignment, suitable for various outdoor or indoor scenarios.

- Suitable for iOS® and Android systems; supports mobile and tablet versions.
- Supports control of RDM, 2.4G, WDMX and IR.
- Can be quickly spliced and supports multiple unlimited splicing.
- Easy-to-read OLED display.
- Includes infrared remote control.

Core: BMS Intelligent Battery Management System

- Multiple safety protection: full protection of overcharging / overdischarge / overcurrent / overtemperature / short circuit, eliminating hidden dangers of the battery.
- Intelligent charging and discharge: fast charging + trickle maintenance, extends battery life, stable battery life.
- Real-time monitoring: real-time display of power/voltage/current, accurate monitoring, percentage of power display and estimated battery life.
- Automatic switching of dual electricity: seamless switching of mains power / battery power supply.
- Point control adaptation: synchronous support lamp point control, precise light control.

Parameter	Value
Input voltage	AC 100V–250V / 50–60Hz
Power	240 W
Light source	16 LEDs (RGBA), life expectancy 50,000 hours
Colour temperature (range)	2000 to 10000K adjustable
Waterproof level	IP65
Lens angle	20° (10 / 20 / 40 optional)
Optional PWM	800 Hz, 1000 Hz, 2000 Hz, 4000 Hz, 12000 Hz, 25000 Hz

Parameter	Value
Shell material	Aluminum die-casting
Control protocol	RDM, 2.4G, WDMX, IR, APP
Wireless WDMX "G" compatibility	g3, g4, g4s
Battery type	Lithium battery (imported 18650, 21000mAh capacity)
Battery charging time	5–6 hours fully charged
Charge cycles	More than 500 times
Time mode	MAX / 3 / 4 / 5 / 6 / 7 / 8 hour mode selectable

02 Touch Panel Operation

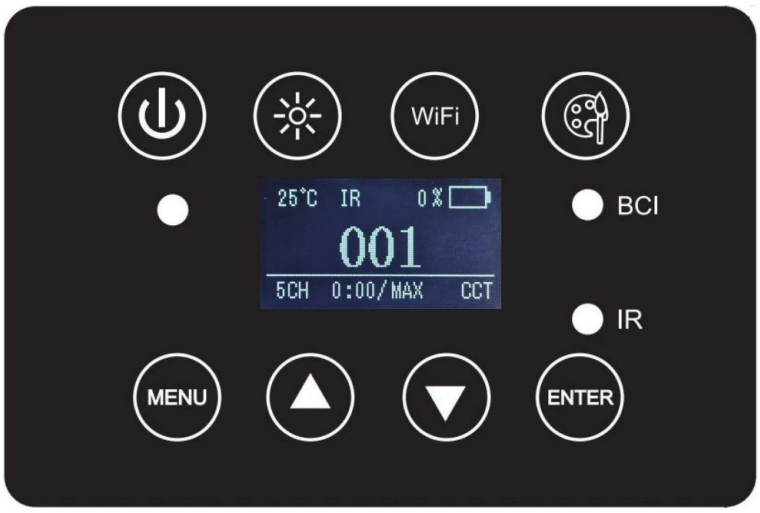


Figure 1 — Touch panel diagram

Key Function Description

Key	Function Description
POWER	Long press to turn on the device.
DIMMER	Shortcut key. Enter the Dimmer settings interface.
APP CONTROL	Shortcut key. Enter the APP CONTROL interface.
COLOR	Shortcut key. Select either Color Function or CCT Function.
MENU	Enter the main menu or return to the previous menu from a submenu.
UP	Add one option to the selection.
DOWN	Select option minus one.
ENTER	Enter the menu selection item or confirm the selection data and save it.
UP + DOWN	Long press to lock or unlock.
MENU + DOWN	Long press to rotate the screen.
ENTER + UP	Long press to enter the LED color calibration interface.

Menu Function Description

Menu	Options	Function Description
Address	001–512	Set the DMX address.
Run Mode	DMX / APP CONTROL	Select the fixture run mode. (Receives remote control signal first; then DMX; then the selected mode.)
CCT	2000K–10000K (24 steps)	Colour temperature selection.
CCT Green	±1.00	Green/magenta adjustment.
CCT Hue	0–360	Hue adjustment.
CCT Saturation	0%–100%	Saturation adjustment.
Color Macro	000–046	Colour macro selection.
Strobe	000–255	Strobe speed.
Static	Red / Green / Blue / Amber (0–255)	Per-channel static colour dimming.
Static (per pixel)	R-1 … A-16 (0–255)	Per-pixel RGBA dimming (16 pixels × 4 colours).
Auto Effect	Effect 1–40	Built-in auto effects.
Auto Effect Speed	000–255	Effect speed.
Channels	4CH / 5CH / 6CH / 12CH / 64CH / 78CH	Select the fixture channel mode.

Setting

Setting	Options	Function Description
Remote	On / Off	Infrared remote control on/off.
Wireless DMX — EASYLINK	On / Off	On = turn on EASYLINK (Guangzhou protocol). When on, WDMX turns off automatically.
Wireless DMX — WDMX	On / Off	On = turn on WDMX (Swedish protocol). When on, EASYLINK turns off automatically.
WDMX Mode	Transmit / Receive / Connect / Reset	Set WDMX transmit/receive and connection commands.
LED WDMX	On / Off	Wireless DMX indicator light on/off control.
Runtime	MAX / 3 / 4 / 5 / 6 / 7 / 8 Hours	Lamp battery usage time setting.

Setting	Options	Function Description
Display Flip	On / Off	On = display flipped 180°.
Backlight	20s / 30s / 40s / ON	Display off after the selected idle time.
AutoLock	On / Off	On = auto-lock after the screen turns off. Long press UP+DOWN to lock/unlock.
DMX Fail	Hold / Blackout	Hold = remain in pre-signal state; Blackout = clear signal data.
Dimmer Curve	Linear / Square Law / Inv Square / S-Curve	Set the dimming curve of the fixture.
Dimmer Frequency	800 / 1000 / 2000 / 4000 / 12000 / 20000 Hz	Select the LED refresh frequency.
Factory Reset	No / YES	YES = restore factory default settings.

System Info

Info	Value	Description
Version	D.V xx.xx L.V xx.xx	Display installed firmware version.
Battery Status	xx%	Battery percentage.
RDM UID	0X0001xxxxxxxx	Unique RDM ID for identification.
Temperatures	LED: XXX°C	Fixture temperature in Celsius.
Power on Time	xxxxh xxm	Total fixture power-on time.
LED on Time	xxxxh xxm	Total LED on time.

BMS Info (Battery Management)

Info	Value	Description
Battery Health	xx%	Battery health condition.
Remaining Rtime	xxxx h xx m	Estimated remaining operating time.
Battery State	Charging / Discharging / Full	Current battery working status.
Battery Voltage	xx.x V	Total battery pack voltage.
Charge Current	xx.x A	Charging or discharging current.
Charge Voltage	xx.x V	Battery charging voltage (charging only).
Time to Full	xxxx h xx m	Estimated charging time remaining.
Cell Voltage	C1–C3: xx.x V	Individual battery cell voltages.
Cell Imbalance	xxxx mV	Voltage difference between cells.
BAT Temperature	xx °C	Battery internal temperature.
Electronics T	xx °C	Control board temperature.
Protect Status	Normal / Active	Battery protection status.
Last Fault Event	Text	Last battery protection or fault event.

Service Status

Info	Value	Description
Power limited	Yes / No	Whether the system is limiting LED output / charging to protect electronics.

Info	Value	Description
Limit reason	None / Thermal / Power / Battery	Reason for power limitation.
Charging Allow	Yes / No	Whether battery charging is permitted.
Discharge Allow	Yes / No	Whether the battery may supply power.
Power Temperature	xx °C	Internal power electronics temperature.

03 DMX512 Channel Description

The Mobi Pixel Bar IP supports six channel modes: 4CH, 5CH, 6CH, 12CH, 64CH and 78CH. The table below lists the channel number for each mode, the function, value range and description.

4CH	5CH	6CH	12CH	64CH	78CH	Function	Value	Description
CH1	CH1	CH1	CH1	—	—	**Dimmer**	0-255	Total dimming
—	CH2	CH2	CH2	—	—	**Strobe**	0-4 / 5-104 / 105-204 / 205-255	Light on / Pulse strobe / Gradient strobe / Random strobe (slow→fast)
CH1	CH3	CH3	CH3	—	—	**Red**	0-255	Red linear dimming
CH2	CH4	CH4	CH4	—	—	**Green**	0-255	Green linear dimming
CH3	CH5	CH5	CH5	—	—	**Blue**	0-255	Blue linear dimming
CH4	CH6	CH6	CH6	—	—	**Amber**	0-255	Amber linear dimming
—	—	CH7	CH7	—	—	**ColorTemp**	0-9 / 10-19 … 230-255	No Function / 2000K … 10000K (see colour-temperature steps)
—	—	CH8	CH8	—	—	**CCT Green/Magenta**	0-4 / 5-255	No Function / -100% to 100%
—	—	CH9	CH9	—	—	**CCT Hue**	0-255	0°–360°
—	—	CH10	CH10	—	—	**CCT Saturation**	0-255	0%–100%
—	—	—	CH11	—	—	**Effect**	0-4 / 5-8 … 253-255	No Function / Effect 1 … Effect 63
—	—	—	CH12	—	—	**Speed**	0-127 / 128-255	Forward speed slow→fast / Reverse speed slow→fast
—	—	—	CH13	—	—	**Effect Backlight Dimmer**	0-255	0%–100% dimming

4CH	5CH	6CH	12CH	64CH	78CH	Function	Value	Description
—	—	—	CH14	—	—	**Effect Backlight Color**	0-4 / 5-255	No Function / Backlight color (enable only when effect running)

Pixel Dimmer Channels (64CH / 78CH)

In 64CH and 78CH modes, channels provide per-pixel RGBA dimming for each of the 16 LEDs. Each pixel has Red, Green, Blue and Amber channels (value 0–255 = 0%–100% dimming).

4CH	5CH	6CH	12CH	64CH	78CH	Function	Value	Description
—	—	—	—	CH1	CH1	**Dimmer Red1**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH2	CH17	**Dimmer Green1**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH3	CH33	**Dimmer Blue1**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH4	CH49	**Dimmer Amber1**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH5	CH2	**Dimmer Red2**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH6	CH18	**Dimmer Green2**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH7	CH34	**Dimmer Blue2**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH8	CH50	**Dimmer Amber2**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH9	CH3	**Dimmer Red3**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH10	CH19	**Dimmer Green3**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH11	CH35	**Dimmer Blue3**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH12	CH51	**Dimmer Amber3**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH13	CH4	**Dimmer Red4**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH14	CH20	**Dimmer Green4**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH15	CH36	**Dimmer Blue4**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH16	CH52	**Dimmer Amber4**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH17	CH5	**Dimmer Red5**	0-255	Pixel 0%–100% dimming

4CH	5CH	6CH	12CH	64CH	78CH	Function	Value	Description
—	—	—	—	CH18	CH21	**Dimmer Green5**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH19	CH37	**Dimmer Blue5**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH20	CH53	**Dimmer Amber5**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH21	CH6	**Dimmer Red6**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH22	CH22	**Dimmer Green6**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH23	CH38	**Dimmer Blue6**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH24	CH54	**Dimmer Amber6**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH25	CH7	**Dimmer Red7**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH26	CH23	**Dimmer Green7**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH27	CH39	**Dimmer Blue7**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH28	CH55	**Dimmer Amber7**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH29	CH8	**Dimmer Red8**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH30	CH24	**Dimmer Green8**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH31	CH40	**Dimmer Blue8**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH32	CH56	**Dimmer Amber8**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH33	CH9	**Dimmer Red9**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH34	CH25	**Dimmer Green9**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH35	CH41	**Dimmer Blue9**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH36	CH57	**Dimmer Amber9**	0-255	Pixel 0%–100% dimming

4CH	5CH	6CH	12CH	64CH	78CH	Function	Value	Description
—	—	—	—	CH37	CH10	**Dimmer Red10**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH38	CH26	**Dimmer Green10**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH39	CH42	**Dimmer Blue10**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH40	CH58	**Dimmer Amber10**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH41	CH11	**Dimmer Red11**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH42	CH27	**Dimmer Green11**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH43	CH43	**Dimmer Blue11**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH44	CH59	**Dimmer Amber11**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH45	CH12	**Dimmer Red12**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH46	CH28	**Dimmer Green12**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH47	CH44	**Dimmer Blue12**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH48	CH60	**Dimmer Amber12**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH49	CH13	**Dimmer Red13**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH50	CH29	**Dimmer Green13**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH51	CH45	**Dimmer Blue13**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH52	CH61	**Dimmer Amber13**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH53	CH14	**Dimmer Red14**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH54	CH30	**Dimmer Green14**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH55	CH46	**Dimmer Blue14**	0-255	Pixel 0%–100% dimming

4CH	5CH	6CH	12CH	64CH	78CH	Function	Value	Description
—	—	—	—	CH56	CH62	**Dimmer Amber14**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH57	CH15	**Dimmer Red15**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH58	CH31	**Dimmer Green15**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH59	CH47	**Dimmer Blue15**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH60	CH63	**Dimmer Amber15**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH61	CH16	**Dimmer Red16**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH62	CH32	**Dimmer Green16**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH63	CH48	**Dimmer Blue16**	0-255	Pixel 0%–100% dimming
—	—	—	—	CH64	CH64	**Dimmer Amber16**	0-255	Pixel 0%–100% dimming

04 Infrared Remote Control



Figure 2 — Infrared remote control

Remote Control Function

- Dimming up button — increases brightness.
- Dimming down key — decreases brightness.
- OFF — light off / pause.
- ON — operation.
- R, G, B, A keys — 4 monochromes.
- The 0 key — A001 console reception mode; up/down keys adjust the address.
- 1–9 number keys — 9 mixed colors.
- AUTO key — changes color; up/down keys adjust speed.
- STROBE key — strobe; up/down keys adjust the speed.
- FADE key — color gradient; up/down keys adjust speed.
- CCT key — ColorTemp; up/down keys adjust Dimmer.

05 Operation Notes

- On the A001 interface is the lamp desktop. Press the MENU key to enter the menu operation interface.
- The frequency band indicator light is red slow flashing when the host sends, and green slow flashing when the slave receives.

WiFi / Bluetooth APP Control Steps

- Step 1: Install the app for this software on your phone (LED LAMP / Stage LED LIGHT).
- Step 2: Switch the lamp display function to WIFI mode (under menu Program → WIFI mode).
- Step 3: Open the settings icon on your phone, open WIFI, and search for the WIFI address. The words beginning with LED will appear (e.g. "LED-00-XXXX"). Click to link.
- Step 4: The phone returns to the Home screen, finds the APP installed on the phone, opens it, and controls it after the link is successful.

> **NOTE**
> If WiFi is not connected when using Bluetooth connection, the Bluetooth information of the module LEDSTAGE-00-XXXX will be displayed on the first interface.

- In the menu Wireless mode, the 7 frequency bands of wireless 2.4G can be adjusted. The corresponding light colors of the 7 frequency bands are: 01 red / 02 green / 03 yellow / 04 blue / 05 light blue / 06 purple / 07 white.
- During charging, the charging interface will appear on the display screen. If you need to use the lamp while charging, press the POWER button under the charging interface to enter the operation mode of the lamp.

Over-Temperature & Battery Protection

- Over-temperature protection: when the temperature reaches 60°C, the program starts to reduce brightness. Brightness decreases linearly with rising temperature. At 85°C, brightness drops to the level when total dimming is 10.
- When the battery power is lower than 20% and there is no mains power connected, the light reduces its power, with the maximum reduction being to 75% of the total power.
- When the power supply temperature exceeds 80°C, the lamp reduces its power and stops charging. When the temperature exceeds 90°C, the lamp goes out and stops discharging.
- When the light is turned on, it starts with full charging. After the light goes out and stabilizes for 5 minutes, it then starts the fast charging mode.

> **NOTE**
> This lamp supports wired RDM and software online upgrade functions.