SCHNICK
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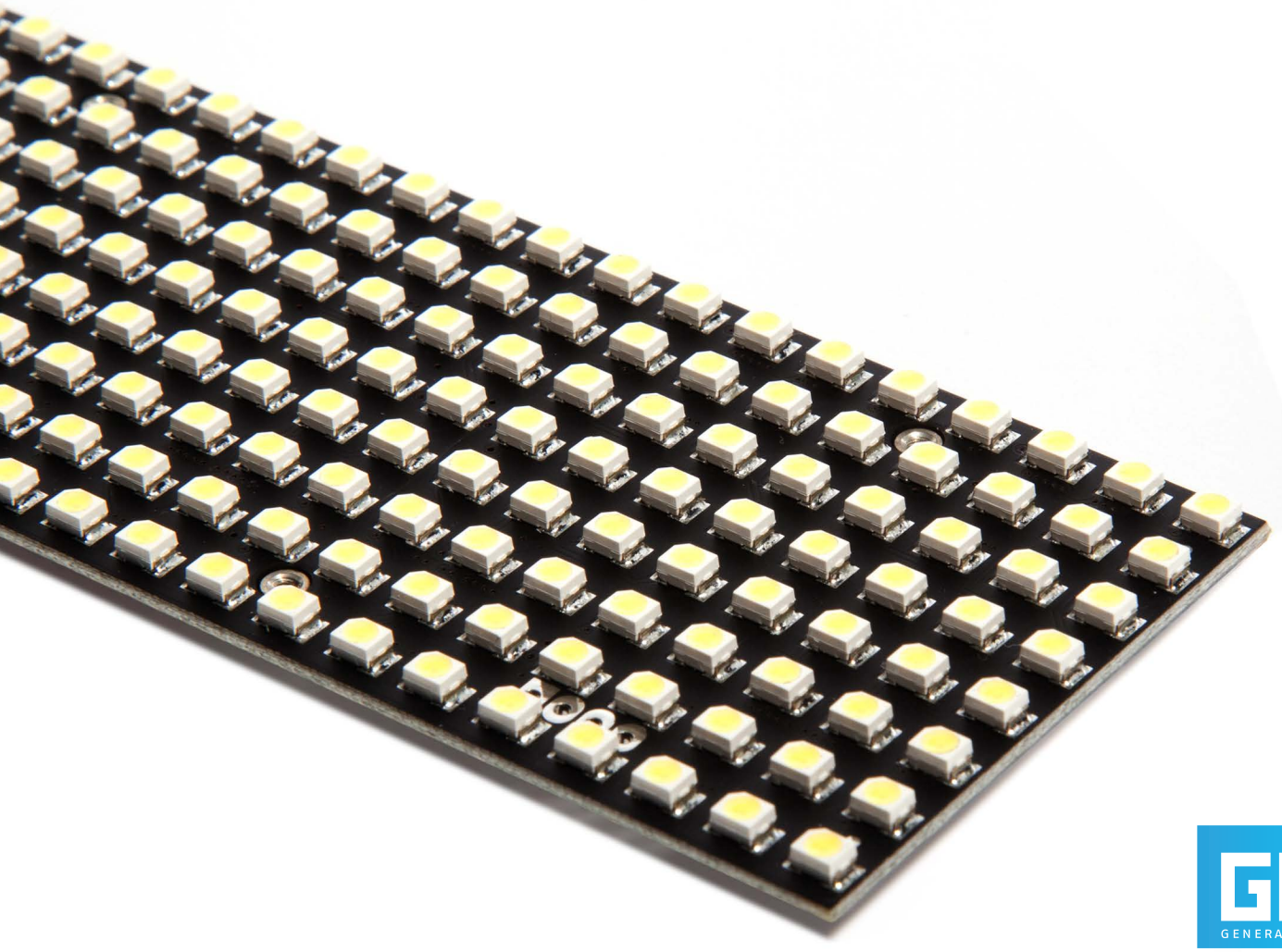
SYSTEMS

LED-Tile M6 MK2.6

Product Sheet



GENERATION 3

Introduction

FEATURES

- Generation 3 compatible
- Automatic Addressing System (Smart Link) – no addressing at the board
- Automatic switching between DMX and DPB protocol
- Optional bidirectional DPB protocol for feedback about temperature, voltage, etc. (Easy Feedback)
- Compatible with other series from Schnick-Schnack-Systems
- Free patch, color change and scroll text control software
- Made in Germany

- ANSI batch selection
- Wider 120° beam angle
- Camera friendly dimmer control
- Equal brightness despite different cable lengths due to integrated switching regulator
- Optimum efficiency due to state-of the-art circuit technology

- Direct control with DMX 512-A
- Direct connection to 24V DC

- Pliable, fiberglass reinforced board
- Minimal surface temperature
- Component-free top surface for a clear, unobstructed view

Use

The LED Tile in the M product series is equipped with premium quality, efficient, monochrome or white LEDs. Each LED can be individually controlled. With an LED distance of 6.25 mm, the M6 Tile is our highest-resolution tile and therefore the ideal LED light source for all applications where monochrome, high-resolution dynamic surfaces, structures or video effects are called for. Whether as a display for single-color scrolling text, black and white videos or animated light, the M Series LED Tiles bring movement to walls, floors, counters, light boxes and other decorative elements.

Technology

The LED-Tile M6 measures 200mm × 50mm and is equipped with 256 LEDs in a grid layout at intervals of 6.25mm in 11 different colors:

- Warm white (2700K, 3000K, 3500K)
- Neutral white (4000K)
- Cold white (5000K, 5700K, 6500K)
- Red
- Green
- Blue
- Amber

The LED-Tile M6 has a very high light density due to the high number of LEDs per board. The pin assignment is only visible on the back of the tile providing a clear, clean surface. The M-series can also be used without a diffuser. And, thanks to our Smart Link Technology, the elaborate addressing of the tiles is no longer necessary.

The LED-Tile M6 belongs to the Generation 3 and in addition to DMX, can also read the Dynamic-Pixel-Bus Protocol (DPB). By using the DBP, more LED tiles per output of a system power supply are available – up to 3,072 channels. A variable transmission rate enables the best, customized balance of channel count, frame and error rate. When video signals are used, a system wide synchronization prevents any image distortion and the system speed can therefore easily reach the 60 fps update rate. Switching between DMX and DPB is possible at all times.

The tile firmware can be updated from a central point via the System Power Supply 4E network, which also means that future standards or developments can be supported. Each tile sends status information such as temperature, data error rate, input voltage or LED defects back to the control system so a problem-free remote diagnosis can be made at any time.

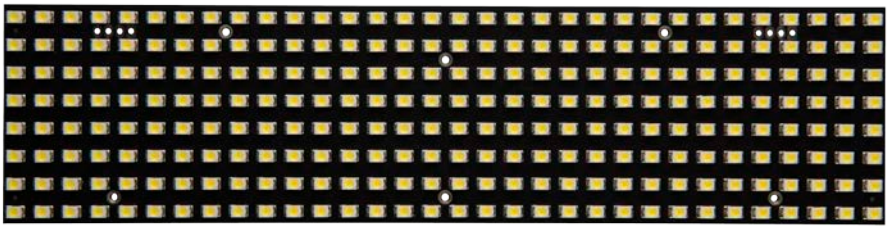
The LED-Tile M6 can be mounted with 2mm screws with the aid of pressed-in threaded inserts.

Control

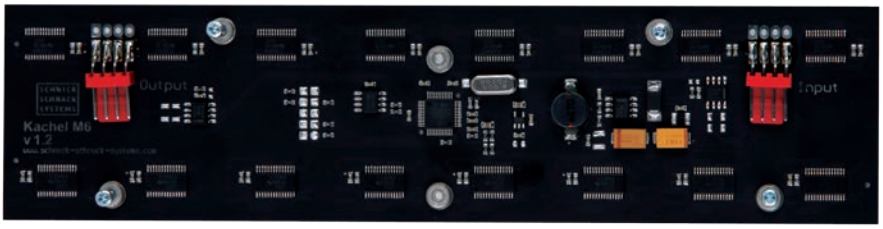
The power supply and addressing takes place via the System Power Supply 4E. Via its Ethernet interface, Pixel-accurate control of the M-Series LED Tiles can be achieved with lighting boards, media servers, with our Pixel-Gate video converter as well as with DVI or SDI video signals.

Mechanical Data

Features	LED-Tile M6 MK2.6
Dimensions	200mm × 50mm
LED-Pitch	6,25mm
Number of LEDs	256
Pin connection and -colour	System connector red
Safety class	IP00
Weight	55,8g

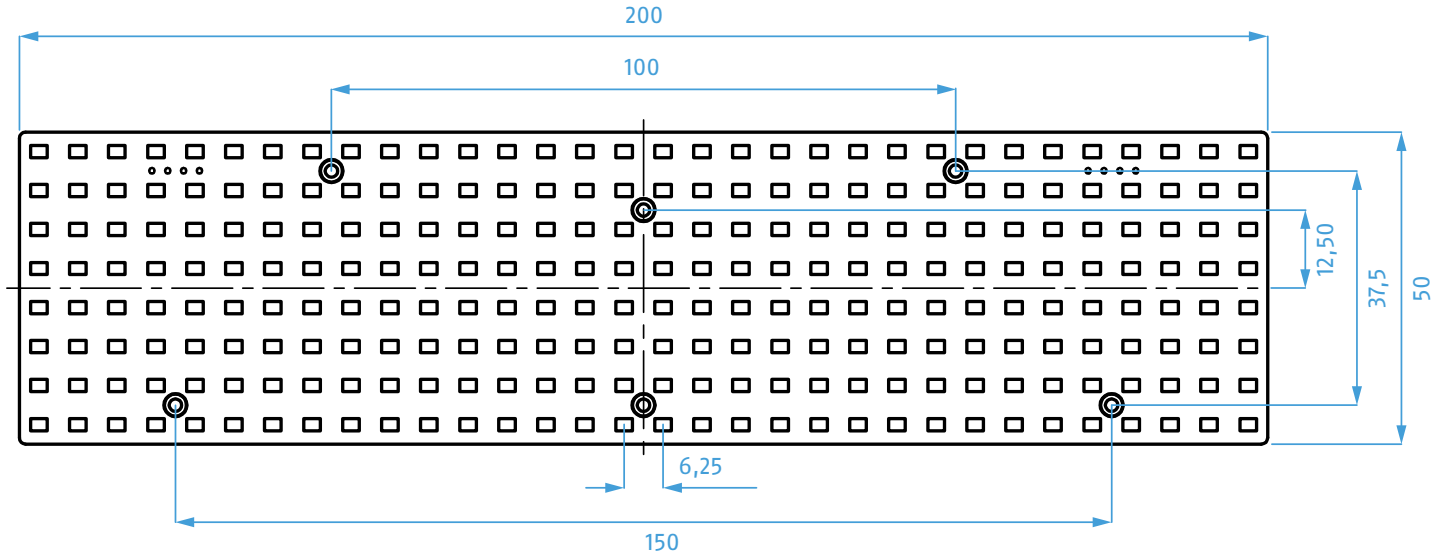


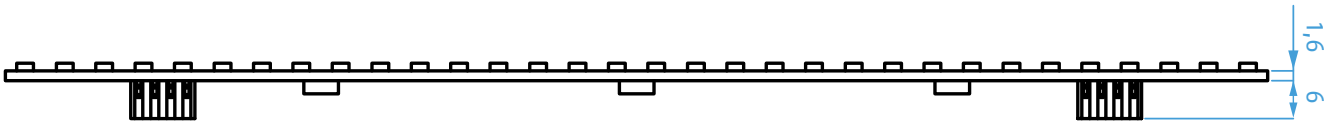
LED-Tile M6 MK2.6 (front view)



LED-Tile M6 MK2.6 (rear view)

CAD drawing*





* without scale / all units in mm

Optical data

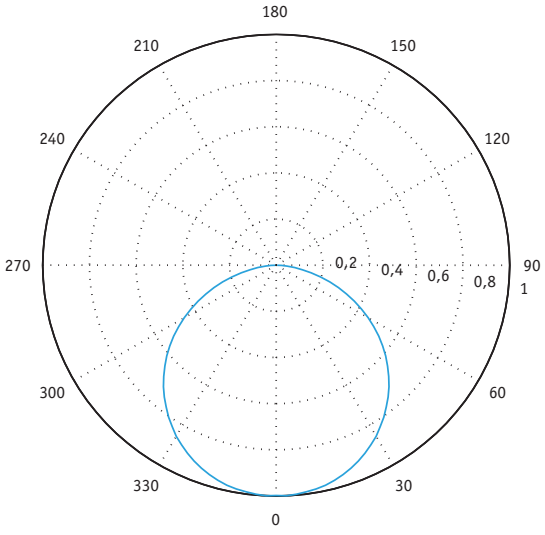
Features	LED-Tile M6 MK2.6
Colour	2700K-6500K Red Green Blue Amber
Emission angle	120°
Lighting current	486,3lm*
Colour reproduction R_a	> 80*
Light intensity	154,8cd*

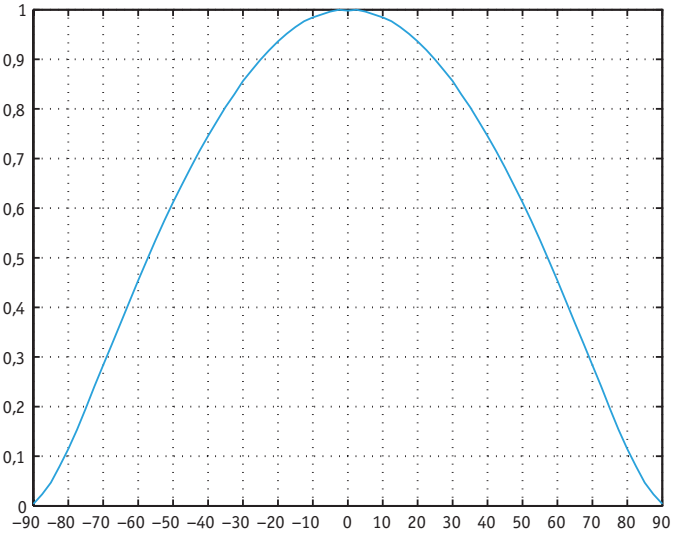
Distance/Lux table

Distance	Lux
0,5m	619,2lx*
1m	154,8lx*
2m	38,7lx*

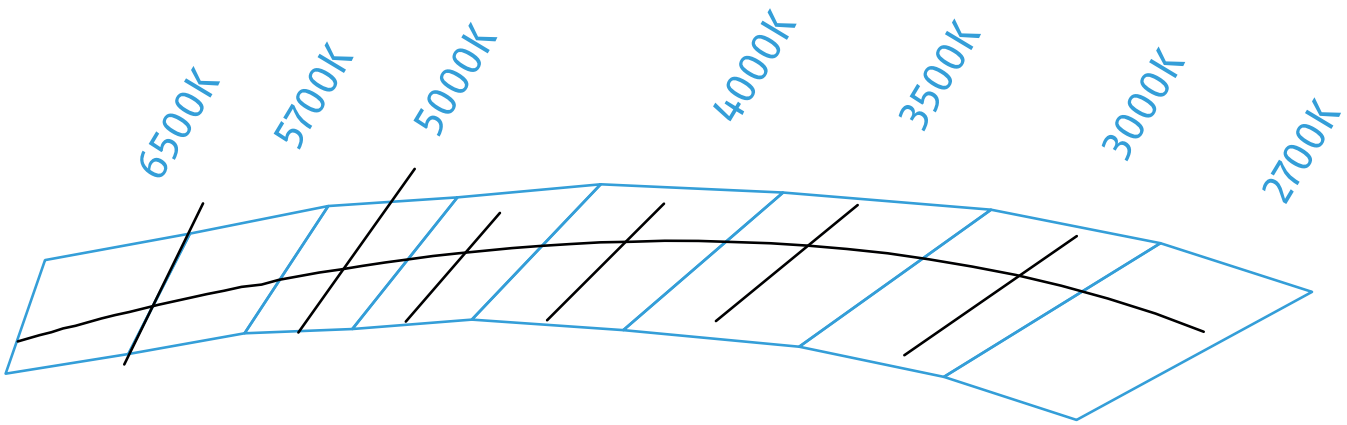
* The data provided are measured values. As these values are subject to fluctuations, the actual values of the delivered LEDs may deviate from them. The photometric values were measured using an LED-Tile M6 in white (red, green, blue and amber on request).

Light distribution curves

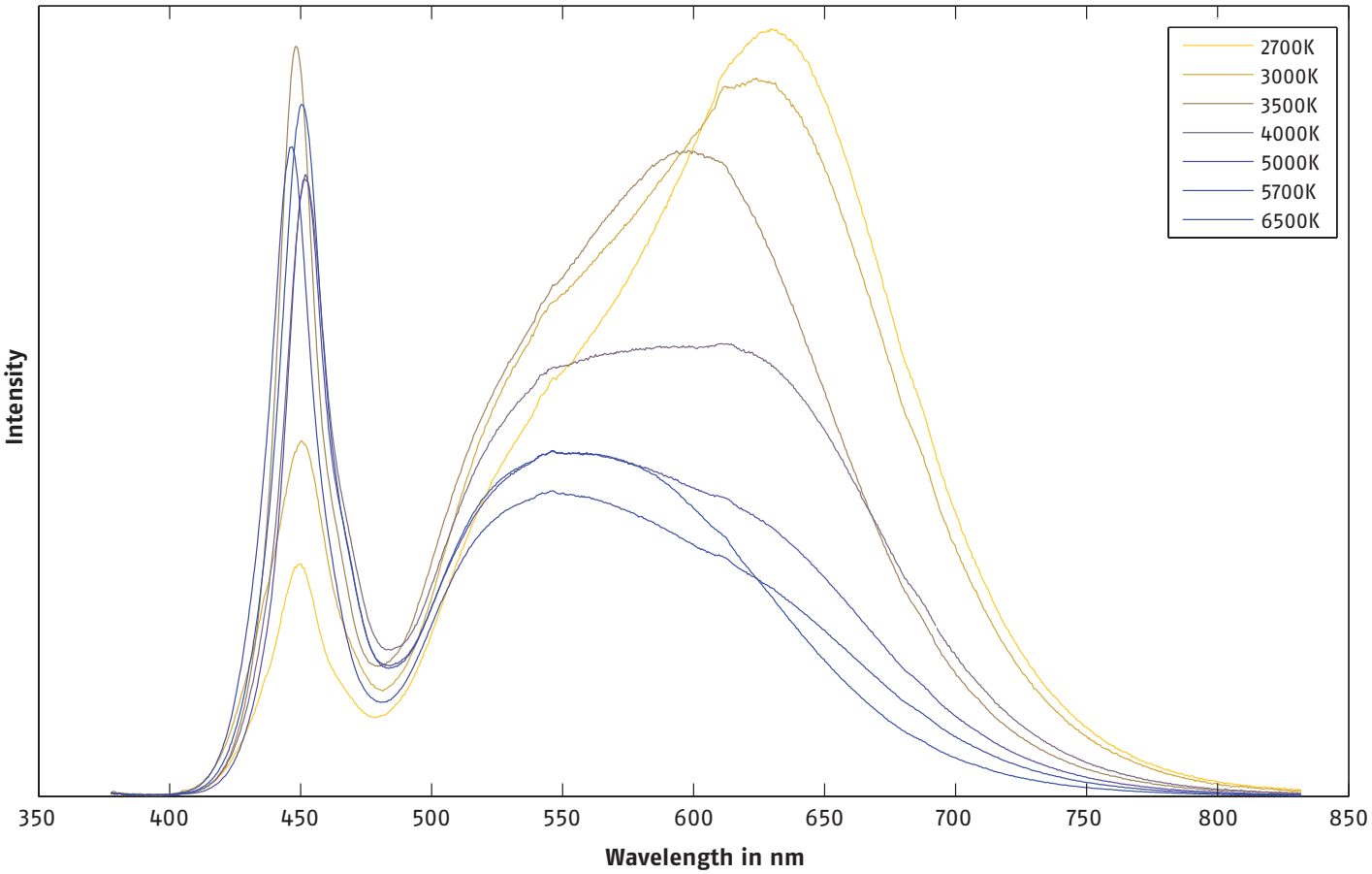




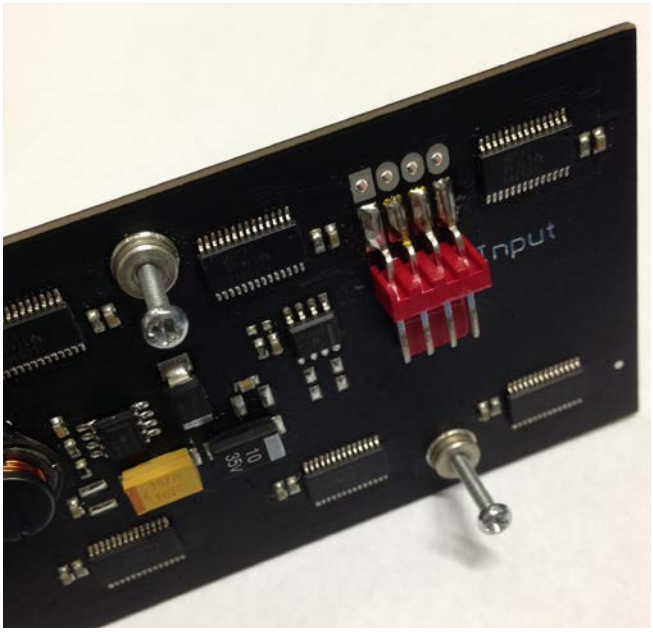
Binning (ANSI)



Spectral distribution



Mounting



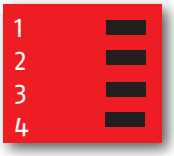
The LED-Tile M6 has six pressed-in threaded inserts and can be mounted with 2mm screws.

Electrical data

Features	LED-Tile M6 MK2.6
Voltage	24V
Current (I_{max}, White)	0,5A
Current (I_{max}, Red and Amber)	0,5A
Current (I_{max}, Green and Blue)	0,5A

Pin Connection

System connector red



GND
DMX -
DMX +
24 V

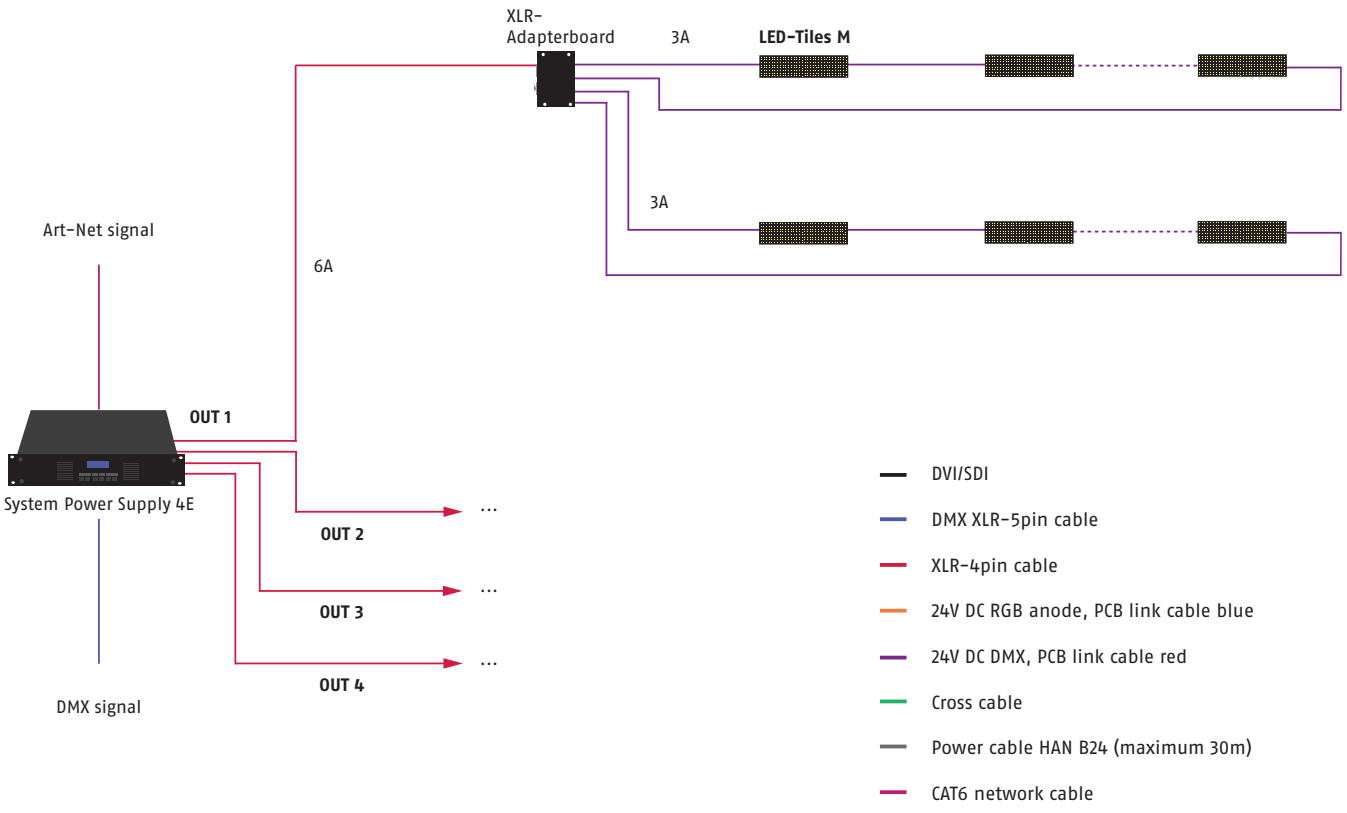
Control options for LED-Tiles M6 MK2.6

System Power Supply 4E

DMX 512*	DPB**
maximum 8 LED-Tiles per controller	maximum 48 LED-Tiles per controller
maximum 2 LED-Tiles per XLR output	maximum 12 LED-Tiles per XLR output
	maximum 6 LED-Tiles per system connector red

*channel-restricted
**current limited

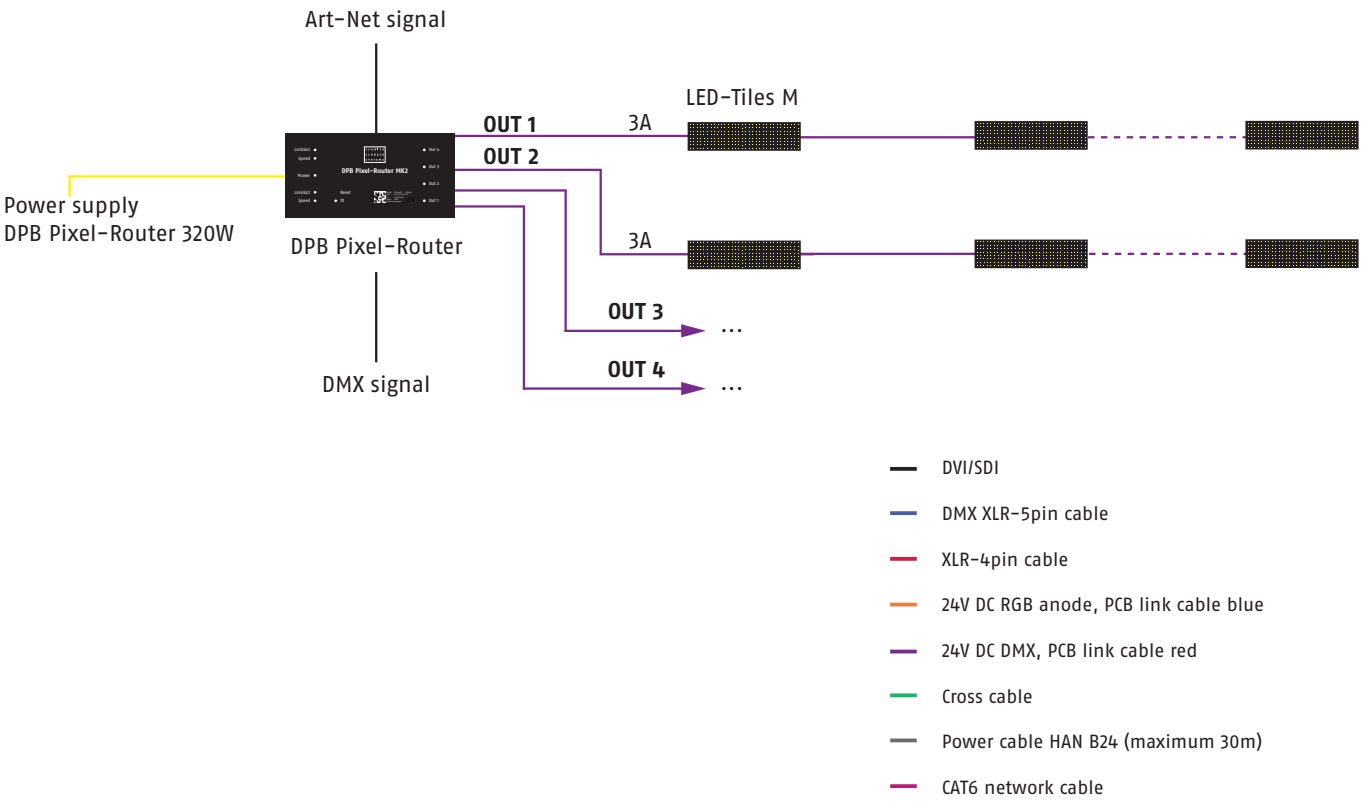
Cabling example for System Power Supply 4E with LED-Tile M6 MK2.6



DPB Pixel-Router

DPB
maximum 24 LED-Tiles per controller
maximum 6 LED-Tiles per output

Cabling example for DPB Pixel-Router with LED-Tile M6 MK2.6



Order numbers

	LED-Pitch	Backlighted surface	Current (I_{max})	Channels	Connection	Colour	Item number
LED-Tile M6 MK2.6	6,25mm	200mm × 50mm	0,5A	256	System connector red	6500K	114.6563
						3500K	114.3563
						3000K	114.3063
						5700K	114.5763
						5000K	114.5063
						4000K	114.4063
						2700K	114.2763
						Red	114.0051
						Green	114.0091
						Blue	114.0101
						Amber	114.0061

	Operating voltage	Power (I_{max})	Channels	Input	Output	Item number
System Power Supply 4E	110-240V AC	4 × 6A*	4 × 3072 channels (DPB) 4 × 512 channels (DMX)	Ethercon RJ 45 XLR-5pol IN/Trough	4 × XLR-4pin	203.0003
DPB Pixel-Router MK2	24V DC	4 × 3A	4 × 3072 channels	RJ 45	4 × System connector red	203.0021
DPB Pixel-Router POE MK2	24V DC	4 × 3A	4 × 3072 channels	RJ 45	4 × System connector red	203.0022

* Note: american version only 4 × 4A at 110V

ESD warning

Please be aware that electrostatic discharges can destroy LED boards, and our experience shows that this does happen. During assembly, we recommend wearing at least one antistatic wrist strap and avoiding static discharges – such as those that arise when removing protective film or dry cleaning acrylic glass, for example– near LEDs! Antistatic materials should be used when packaging the LED boards. Normal bubble wrap or other plastic bags are not suitable.

For reasons of safety and radio shielding, please only use systems we have approved to provide a power supply for our LED components. All technical information is based on the version at the time of printing.

Why Schnick Schnack Systems?

As installation times become increasingly shorter the complexity of systems simultaneously increases as do the requirements of customers.

We are a supplier who delivers high-quality reliable systems – under tight deadline constraints that are not only quick to install but also simple to operate and service.

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Version May 2017: All technical data and the weight and dimension information were carefully created – errors reserved. Any colour deviations are printing-related.

We reserve the right to make changes that serve further improvement.