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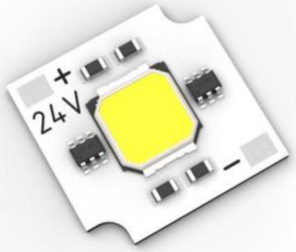
DATASHEET

NICHIA LED MODULE SMARTARRAY Q1 WARM WHITE 3000K CRI80 610LM 200MA 24V 4.8W 13MM

SKU: 43968



Article number (SKU)	**43968**	
Product name	SmartArray Q1 Nichia 3000K CRI80 610lm 24V	
Classification	-	
Model identifier (equivalent models)	SmartArray Q1 24V / drawing 1700076-E13600	
Photometric data (at Tj = 25°C, ± 10%)		
Light color	Warm white	
Binning	3-Step MacAdam	
Color temperature (**K**)	3000 K	
Dominant wavelength (**nm**)	-	
Luminous flux (lm)	610 lm	
Radiant power (**mW**)	-	
CRI (**Ra**)	>80	
Luminous efficacy (lm/W)	127 lm/W	
Beam angle FWHM	120°	
Lifetime L80B10C1 (**h**)	>60,000 h	
Photometric code	830/339	
Electrical data (at Tj = 25°C, ± 10%) (reference settings)		
Operating mode	Constant voltage	
Voltage (**V**)	24 V	
Current (**mA**)	200 mA	
Power (**W**)	4.8 W	
Standby power (W)	0 W	
Dimmable	Yes - PWM	
Dimensions / Mechanical data	**Metric units**	**Imperial units**
Length	13 mm	0.512 in
Width	13.5 mm	0.531 in
Height	1.8 mm	0.071 in
Number of LEDs (pcs)	1 pc	
Weight (g)	-	
Heat dissipation	-	
Temperatures		
Operating temperature at Tc	-40 °C to +85 °C	
Ambient temperature	-40 °C to +50 °C	
Storage temperature	-40 °C to +100 °C	
Approvals / Certifications		
CE / RoHS / Reach	Yes	
EN 62471 Risk group	RG2	
Energy efficiency class	-	
Mains voltage luminous efficacy (lm/W)	-	
Version		
Technical data date	29 July 2025	

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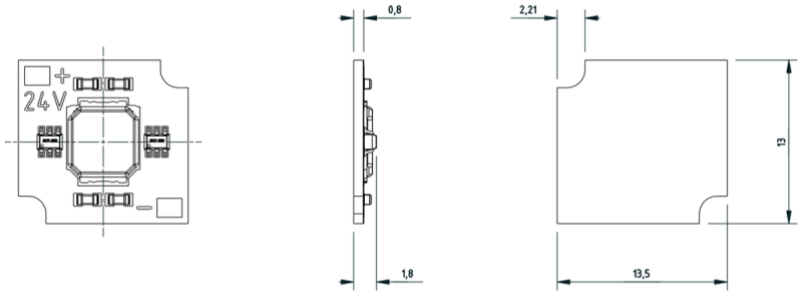

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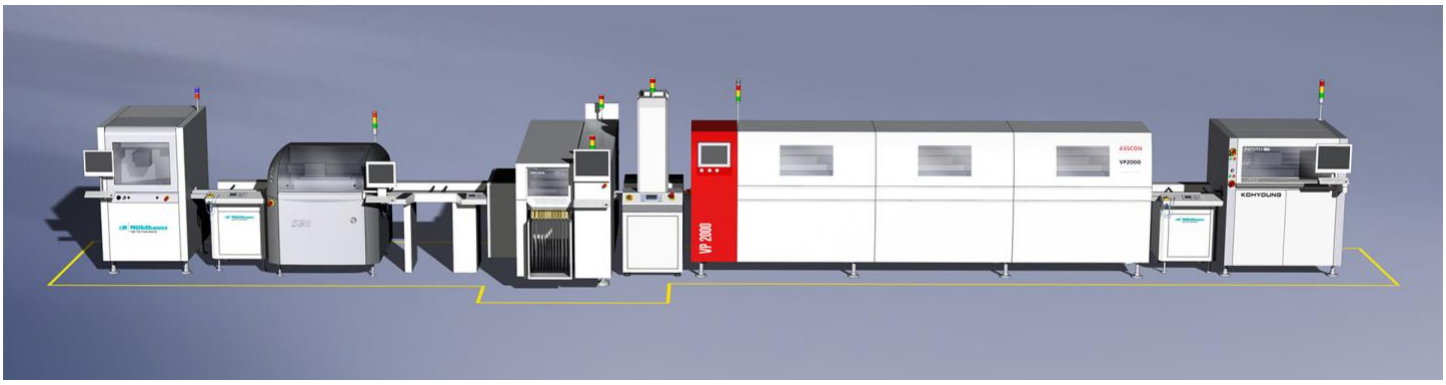
MANUFACTURING

made in Germany

5 YEAR WARRANTY

This product carries a five-year commercial warranty. Refer to https://www.lumistrips.com/lumistrips-en-warranty for warranty terms.

We develop and manufacture LED modules and strips in Hechingen, Germany, drawing on more than 20 years of experience in LED technology.



Our capabilities cover rigid modules, flexible LED strips and custom assemblies, with support from development and prototyping through to series production.

CUSTOM DEVELOPMENT AND SUPPORT

- Custom options can include PCB dimensions, LED selection, optics and control electronics, subject to technical feasibility.
- Development support covers PCB layout, thermal design and system integration.
- Prototypes can be assembled and evaluated in our in-house lighting laboratory.
- Supply your optical targets, dimensions, supply and control requirements, operating environment and expected quantity when requesting a custom design.
- Technical enquiries: contactus@lumistrips.com | www.lumistrips.eu



Our manufacturing capabilities include surface-mount technology (SMT) assembly for rigid PCBs and reel-to-reel production for flexible LED substrates. The process is selected to suit the product design and production volume.

Production quality controls include:

- Laser marking for PCB identification and traceability
- Solder paste inspection before component placement
- Automated component placement
- Controlled reflow soldering
- Three-dimensional automated optical inspection

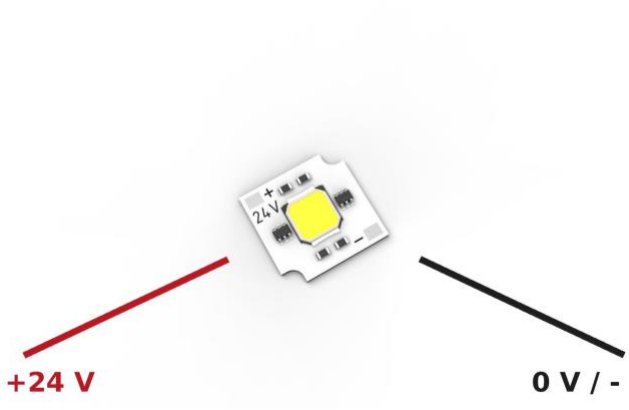
Manufacturing management systems: ISO 9001 for quality, ISO 14001 for environmental management and ISO 45001 for occupational health and safety. These certifications apply to the manufacturing centre; product approvals are listed separately in the technical data.

LED SELECTION AND PERFORMANCE

The SmartArray Q1 combines a Nichia white LED with integrated electronics on a compact aluminium-based module. The SKU identifies the CCT, CRI and luminous-output configuration covered by this datasheet.

- Optical data: luminous flux, correlated colour temperature (CCT), colour rendering index (CRI), efficacy and colour consistency.
- Electrical data: 24 V constant-voltage operation, nominal current, power and PWM dimming at the stated reference conditions.
- Thermal data: the case-temperature and ambient-temperature limits apply to the installed module.
- Performance values apply under the stated test conditions. Installed output and lifetime depend on supply voltage, temperature, mounting and luminaire design.

ELECTRICAL CONNECTION



Connect the SmartArray Q1 to a regulated 24 V DC constant-voltage supply, observing the marked positive (+) and negative (-) polarity on the module. Use conductors and connection methods suitable for the final luminaire design.
The SmartArray Q1 includes onboard electronics and is specified as a 24 V constant-voltage module. PWM dimming is supported according to the source datasheet.

POWER SUPPLY SELECTION

Select a regulated 24 V DC constant-voltage power supply with sufficient output power for the connected modules and appropriate protection functions. One module draws approximately 200 mA and 4.8 W at the stated reference conditions.

PARALLEL CONNECTION

Connect multiple SmartArray Q1 modules in parallel across the regulated 24 V DC supply, observing polarity.

Each module receives 24 V; total supply current is the sum of the connected module currents.
Size the power supply, wiring and protection for the total connected load.

SERIES CONNECTION

The SmartArray Q1 is specified for 24 V constant-voltage operation; series connection is not the stated operating configuration.
Use parallel 24 V operation for standard installations unless an alternative topology has been separately validated.

HANDLING AND INSTALLATION

Electrical isolation

Disconnect the supply before installation or wiring. Installation must be performed by an authorized electrician in accordance with applicable electrical and safety requirements.

Mechanical handling and ESD

Use electrostatic discharge (ESD) precautions. Handle the PCB by its edges; do not press on LEDs or other components. Avoid excessive bending, clamping forces and overtightened fixings. Do not damage conductive tracks.

Mounting and temperature

Support the module on a suitable mounting surface and verify that case and ambient temperatures remain within the specified limits in the completed installation. The source datasheet does not specify a dedicated heat-sink requirement.

Storage and environment

Avoid contact with aggressive chemicals during storage and operation. The source documentation specifies a storage and operating humidity range of 10% to 60%.

Power supply protection

This module has no integrated overload, overtemperature or short-circuit protection unless otherwise stated. Use a regulated 24 V supply with the required protection functions and verify that the complete system remains within the module's electrical and thermal limits.

Checks before operation

Check polarity, supply voltage, wiring, PWM control and mounting before applying power. Confirm that the selected power supply and dimming controls are compatible with the SmartArray Q1.

DOCUMENT INFORMATION

ORDERING AND PRODUCT INFORMATION

www.ledrise.eu / www.lumistrips.com