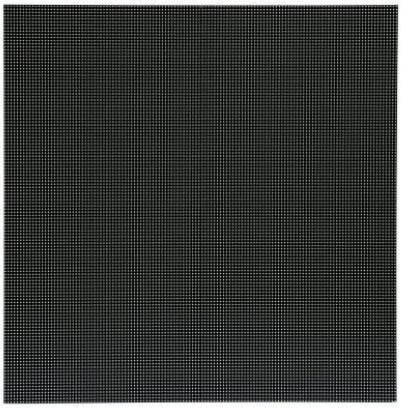
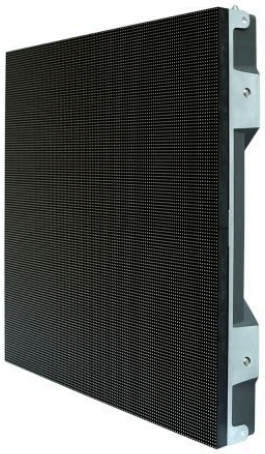
2.8 mm Outdoor Square LED Modules

NEC LED-Q028e2





Combining the ultimate visual experience with maximum versatility

The Sharp Q Series Outdoor Direct View LED is designed to provide high-bright, quality imaging in outdoor environments. Rated IP65 to stand up to some of the harshest environments. With pixel spacing options of 2.8 mm, 3.9 mm, 4.8 mm, 5.9 mm or 7.8 mm the optimum display resolution can be achieved regardless of viewing distance.

The Q Series Outdoor is engineered to deliver vivid content visualization, even in harsh outdoor settings. The square, modular design can be scaled to any size and allows for creative installations to be realized.

The front and rear serviceable design helps to minimize downtime by providing easy access and quick maintenance. The Q series outdoor dvLED is the ideal solution for live event venues, DOOH, airports, train and bus stations.

Benefits

Full outdoor capabilities – thanks to IP65 rated housing full protection against humidity and foreign materials as well as an increased range of operating temperatures of -30° C to +50° C are ensured.

Large scale for perfectly detailed imagery – completely bezel-less design with high contrast rates deliver an unhindered viewing experience.

Quality product – designed and tested in Germany, Direct View LED product of the highest quality.

Superb readability in bright light environments – high brightness levels of up to 4,000 cd/m^2, along with wide viewing angles deliver clear messages to your audience even under varying and demanding ambient conditions.

Versatile and scalable – 1:1 module aspect ratio allows versatile and customized use of the given space in a wide range of application scenarios.

Specifications

Product Information

Product Name
NEC LED-Q028e2

Product Group
2.8 mm Outdoor Square LED Modules

Order Code
L50Q028E2

Display

Pixel Configuration
3-in-1 SMD (Black)

LED type
SMD (1415)

Pixel Pitch [mm]
2.8

Contrast Ratio (typ.)
7000:1

Viewing Angle [°]
140 horizontal / 120 vertical

Brightness (max.) [cd/m²]
4000

Dimming Capability
256 levels

Lifetime
100000 hrs (50% brightness)

Colour Processing
16 bit

Colours [Trill.]
281 trillion

LED Driving Method
1/22 dynamic scan

Refresh Rate [Hz]
≤ 3840

Colour Temperature [K]
3000 - 9500

Screen Resolution

Number of Pixel per m²
123904

Resolution of Pixel per module [dot]
176 x 176

Resolution of Pixel Card [px]
88 x 88

Electrical

Power Consumption typ. [W]
270 per m² (normal use)

Power Consumption max. [W]
720 per m²

Environmental Conditions

Operating Temperature [°C]
-30 to 50

Operating Humidity [%]
10 to 90

Mechanical

Dimensions (W x H x D) [mm] per module
500 x 500 x 70

Weight [kg]
8.5

Regulatory

Safety and Ergonomics
CE; ETL; FCC Class A; RoHS

Additional Features

Manufacturer
NEC

Serviceability
front Service; rear accessibility

IP Level
IP65

Warranty
2 years

CE

FCC Class A

RoHS

This document is © 2026 Sharp Display Solutions Europe GmbH.

All rights reserved in favour of their respective owners. All hardware and software names are brand names and/or registered trademarks of the respective manufacturers.
All specifications are subject to change without notice. Errors and omissions are excepted. 12.11.2026