



DATASHEET



MaNima Magnus 14 Digital LED Interface

- Master-slave function.
- Up to 7168 SPI channels
- Up to 1024 DMX channels.
- Analog and digital I/O with configurable functions
- 100Mbit ethernet
- 6 independent LED outputs
- Open JSON API for configuration and control
- Settings can be locked with a password for end users

Recording and Playing

The MaNima Magnus is able to record and play up to 26 universes according to the WYSIWYG principle.

Reliable and Stable

The MaNima Magnus has been proven to be a reliable and stable product when used for high-end LED projects

EMC Tested Product

All of MaNima's products are EMC tested and can safely be used in critical applications.

Art-Net

The MaNima Magnus can be controlled via ArtNet V1.4. The interface is easy to find and use thanks to the configurable ArtPoll system.

Stackable

Connect dozens of MaNima Interfaces together to create huge LED projects with the least amount of parts.

Easy-to-use GUI

The settings of the MaNima LED interface can easily be changed by a user via the MaNima LED interface configurator.

External Inputs

Scenes can be started via external inputs. These are digital inputs or analogue inputs; 4-20mA or 0-10V. And UDP commands.

Synchronization

Multiple MaNima Interfaces can synchronize when playing scenes through a master- slave setup.

Multiple Protocols at once

Due to the available multiple ports, there is also the possibility of sending different protocols over different ports.



Technical Specifications

Weight	<i>360 Grams</i>
Dimensions	<i>90 x 159 x 58 mm</i>
Mounting	<i>Din rail</i>
IP class	<i>IP10</i>
Wiring	<i>Max. 2.5mm² 14 AWG</i>
Connectors	<i>Power: 12-48 VDC terminal connector, Art-Net terminal connector:RJ45 bus, IO port 5-pin input/ output terminal connector, analogue 6-pin terminal connector, +10 volt terminal connector.</i>
Input voltage	<i>12-48V DC 200mA max</i>
Max. power consumption	<i>1.5W</i>
Channels	<i>10.240 Art-Net and/or up to 1024 DMX channels</i>
Ethernet	<i>RJ45 compatible, for 10/100 Base-TX Ethernet with Static IP address or DHCP</i>
Input	<i>DMX512 (2 inputs) Art-Net MaNima Configurator 5 digital inputs 6 analogue inputs UDP commands</i>
Output	<i>50+ SPI protocols (supported IC's list) DMX512 (2 outputs) SPI (6 outputs) Art-Net Max FPS; Depends on IC type (Clock increases max FPS); More than 100FPS can be achieved with customization from MaNima Technologies.</i>
Directives	<i>CE, RoHs</i>
Operating temperature	<i>10°C ~ 60°C</i>
Storage temperature	<i>10°C ~ 60°C</i>
Warranty	<i>5 Years</i>
Gui	<i>MaNima Configurator</i>



Supported ICs

APA102, APA102_8bit, APA104, APA106, HD107S

BS0901

CX808, CS8812

DM412, DMX

GW6205_400kHz, GW6205_800kHz, GS8208

INK1003

LD1510, LPD6803

MBI6024, MB16120, MY9221, MY9231, MY9291

PC5XS301V0500

SK6812, SK6812RGBW, SK6822, SK8922

SM16703, SM16716, SM16726, SM16904

TM1803, TM1804_400kHz, TM1804_800kHz, TM1809, TM1812, TM1814, TM1914A

UCS1903_400kHz, UCS1903_800kHz, UCS1904, UCS2903, UCS2904, UCS2912, UCS512B3, UCS5603A, UCS8904, UCS9812, UCS8903

WES9412, WES943

WS2801, WS2803, WS2811_400kHz, WS2811_800kHz, WS2812, WS2812B, WS2812S, WS2813, WS2815, WS2818

Maximum universes (LEDs) per Port

Refer to the manual for further information about maximum universes per port.

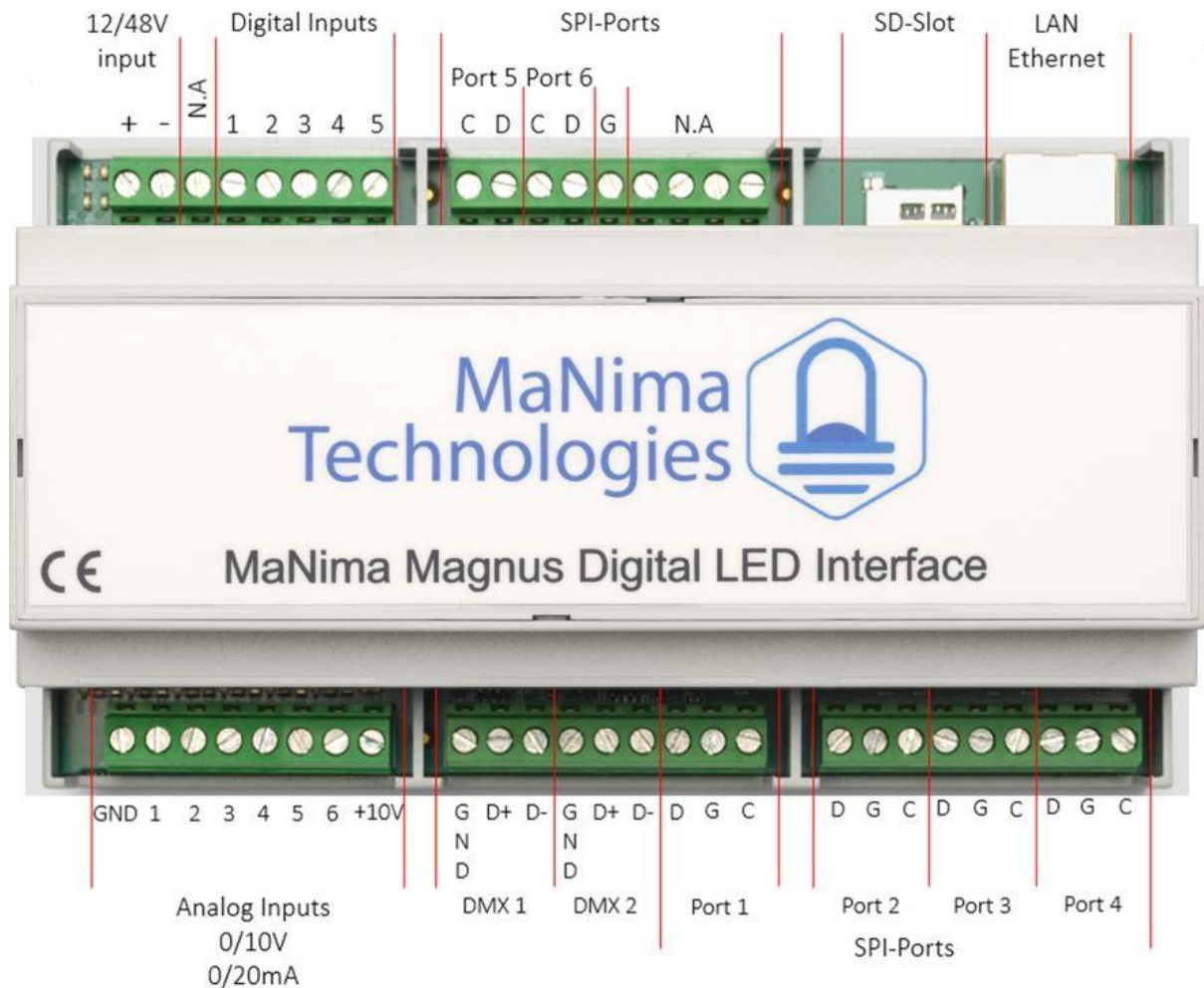
LED type	30 FPS maximum	60 FPS maximum
APA102, APA102_8bit, APA104, APA106, HD107S	48 (8160 LEDs) *	24 (4080 LEDs) *
TM1914	6 (1020 LEDs)	3 (510 LEDs)
WS2812 RGBW	6 (768 LEDs)	3 (384 LEDs)
TM1814	6 (768 LEDs)	3 (384 LEDs)
WS2811, WS2812, WS2813, WS2815, WS2818	6 (1020 LEDs)	3 (510 LEDs)
GS8205, GS8206	6 (1020 LEDs)	3 (510 LEDs)
SM16703, SM16709, SM16712, SK6812	6 (1020 LEDs)	3 (510 LEDs)
TM1803, TM1804, TM1809, TM1812	6 (1020 LEDs)	3 (510 LEDs)
UCS1903, UCS1909, UCS1912, UCS2903, UCS2904, UCS2909, UCS2912	6 (1020 LEDs)	3 (510 LEDs)
INK1003	6 (1020 LEDs)	3 (510 LEDs)
LX3203, LX1603, LX1103	6 (1020 LEDs)	3 (510 LEDs)

* Theoretical maximum amount, please contact us for further assistance when using APA strip.



Connection Diagram

Descriptions of ports from top left to bottom right:



12/48V input: Connect 12-48DC Volts to this connector.

Digital inputs: Digital inputs are inputs used to control the MaNima LED Interface with voltages between 5V and the input voltage (maximum 48V).

SPI-ports (1-6): These ports are used as outputs for the Data (D) Ground (G) and the Clock (C). Every port has a D, G and a C output. These ports make sure the LEDs will receive the digital signal.

SD-slot: An SD-card must be placed inside this slot. Settings and recorded scenes and saved here.

LAN/Ethernet: To connect to a network, a LAN or Ethernet cable must be connected to the MaNima LED Interface, using this port.

Analog inputs: These inputs are used as analogue channels. The +10V is used for these connections (it can also be used for the digital inputs).

DMX 1-2: These ports are in- or output ports that can transmit DMX data to LEDs or receive DMX data to control the Magnus.



MaNima Network Overview

MaNima Ignis

Industrial Interface

Total system integration for industrial systems

INP and custom API

MaNima Magnus

Digital LED Interface

For high quality digital LED applications

Standalone up to 26 SPI and 2 DMX universes

MaNima Pollux

Monitoring and PWM

10 sensor inputs (8 analogue, 2 digital)

8 PWM outputs

4 Digital outputs

MaNima Nexus

Connectivity module

Connect the installation to wireless network

MaNima Magnus: The MaNima Magnus Architectural LED Interface is a professional LED controller with an industrial design made for operating digital LED installations. The interface is also able to control multiple protocols at once.

MaNima Ignis: The MaNima Ignis Industrial Interface is a LED interface designed for the industrial market. The MaNima Ignis is a stable and reliable platform that is used in the Industry for operating LEDs. The MaNima Ignis can communicate with existing systems.

MaNima Nexus: The MaNima Nexus is a module used for connecting advanced and complex systems to a network of MaNima products.

MaNima Pollux: The MaNima Pollux is an industrial PWM driver and LED monitoring module made for the professional market. The MaNima Pollux is a versatile device which can fulfil many different tasks. The MaNima Pollux has been designed to be reliable, stable and fail-safe.



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