Datasheet

flex.i.edge

EIoT-IHGW-LPX7-001

Industrial Edge computer

An example configuration is shown on the title page. The delivered product may therefore differ from the illustration.
The original operating instructions were written in German.

1 General information

Manufacturer

Elco Industrie Automation GmbH
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Purpose of this datasheet

The purpose of this datasheet is to help users quickly familiarise themselves with the flex.i.edge controller series and understand how to use it. With the help of the flex.i.edge user can install software such as the IoTHub or agents to export data from a controller on this device. Using the Internet connection, the controller allows connection to a cloud or server
Ensure that all persons who carry out activities on the device can view the manual
the instructions at all times.
If you encounter problems when using the datasheet, you can send them to our Customer Support Centre. You can also find the complete manual deposited with us on the website.
Or send an email to the IoT question mailbox: iot@elcoautomation.de.
For product-related information on the official website, download the relevant
product manual on the official website:
Elco website: www.elco-automation.de

2 General description

The flex.i.edge is an industrial edge controller for use in control cabinets. The device is designed to install additional software on it and to realise customer-specific applications.

The device is delivered ex works with a Linux operating system and has an LTE connection for mobile use on site.
The focus of the device is to install local fieldbus agents such as CAN bus or S7 protocol from Elco and to enable data readout on site of the machines. The device provides flexible interfaces to the environment and can be modified according to customer requirements.
In addition, the device provides an inexpensive and space-saving interface into the machine as an edge level in order to transfer the data.

Short description:
Industrial IoT Gateway, X7 CPU, dual-core Cortex-A7 1GHz. Fanless design in aluminum, rugged housing. Miniature size – 10.8 x 8.3 x 2.4 cm. Designed for reliability and 24/7 operation.
1GB RAM, 16GB eMMC, 2x Ethernet, WiFi 802.11 a/b/g/n and Bluetooth 4.1, DVI/HDMI display, 4x USB2.0, Power over Ethernet, 1xRS485, 1xRS232, UART/SPI/I2C/GPIO header, 4G, EU bands, incl. Power Supply, Linux preinstalled

The flex.i.edge series has the following features:

General specifications	
CPU	Dual ARM Cortex-A7, 1GHz
Real-Time Co-processor	ARM Cortex-M4, 200Mhz
RAM	1 GB, DDR3L-1066
Storage	16 GB eMMC
Display	DVI, up to 1920x1080, HDMI connector
Analog Audio	Analog Audio, stereo line-out/in, 3,5mm jack
USB	4x USB2.0 host, type A
RS232	RS232 port, ultra mini serial connector
Serial	1x serial console via UART to USB bridge, micro USB
Embedded interfaces	Up to 1x UART embedded I/O header Up to 1x SPI embedded I/O header Up to 1x I2C embedded I/O header Up to 12x GPIOs embedded I/O header (3,3V)
Operating system	Linux pre-installed
Power supply	Power supply included, US and EU blades
Radio and Ethernet specification	
WiFi	WiFi 802.11 a/b/g/n
Bluetooth	Bluetooth 4.1 BLE

Ethernet Ports	2x Ethernet Gigabit Port (POE) 1000BASE-TX
Cellular	4G/LTE cellular module, Simcom SIM7100E
LTE	Download 100Mbps / Upload 50 Mbps
HSDPA+	Download 42 Mbps/ Upload 5.76 Mbps
UMTS	Download 384 kbps/Upload 384 kbps
TDD-LTE	Band 38/40
FDD-LTE	Band 1/3/7/8/20
UMTS/HSDPA/HSDPA+	Band 1/8
GSM/GPRS/EDGE	900/1800 MHz
SIM/USIM Card	Micro-SIM
Mechanical specification	
Dimensions	108 x 83 x 24 mm
Enclosure Material	Aluminum housing
Cooling	Passive cooling, fanless design
Weight	450 g
Operation Temperature	0° to 70° C
Storage Temperature	-40° to 85° C
Relative Humidity	10% to 90% (operation) 05% to 95% (storage)
Electrical specification	
Power interface	DC power interface
Working Voltage	DC 8~24V
Power protection	No reverse polarity protection