

4G LTE IoT gateway with Ethernet and GPIO interfaces

The **MC100 GPIO** Gateway is equipped with a wide range of analogue inputs and digital in- and outputs. Node-RED™, a simple graphical programming interface supporting various pre-configured transmission protocols, can be used to forward measured values, meter readings, switching statuses and calculations to in-house servers or visualization software via LTE mobile networks.

In many cases the **MC100 GPIO** can be used to replace an under-used but cost-intensive electrical PLC controller while simultaneously functioning as an IoT gateway in a single device.



Key Features:

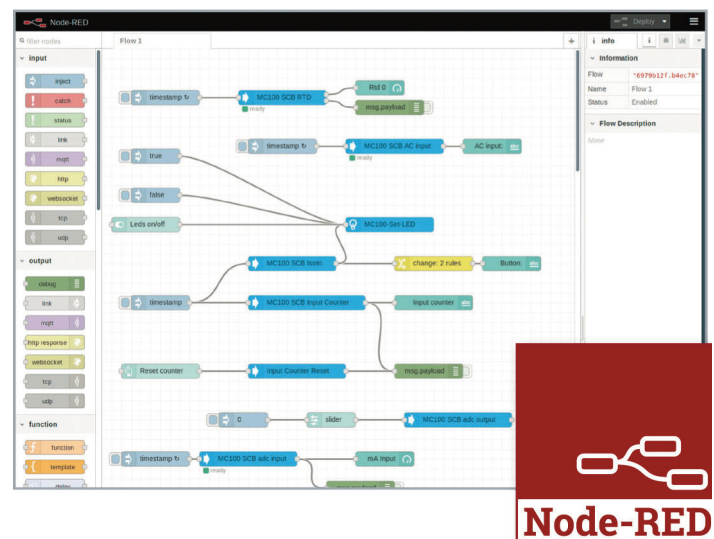
- Programmable logic gateway with mobile 4G LTE modem
- Fallback to 3G and 2G networks
- Out of the box ready for mobile Internet communication
- Ethernet interface, 8 digital inputs, 8 digital outputs, dual 4 – 20mA inputs, dual 0 – 10 V inputs, 2 PWM outputs
- OpenWRT Linux Distribution 19.07 based on Kernel 4.14 and optimized for the ARM-based MC100 Gateway
- Node-RED™ – flow-based programming tool already installed
- Includes Node-RED™ nodes for all hardware interfaces
- Unterstützt umfassende Cloud- und Serverprotokolle
- Konfiguration über Web-Interface
- Data storage on internal Flash or micro SD card
- Wide temperature range, industrial grade platform
- Wall or DIN rail mounting
- Optional with WLAN

MC 100 Gateway Layer Model

Cloud and Server Protocols	OPC UA, MODBUS TCP, MQTT, CLOUD OF THINGS, HTTP, FTP, MS AZURE, E-MAIL, TELEGRAM, SMS
Applications	Node-RED™, Python™, Java™ and more
Hardware interfaces	8 digital inputs, 8 digital outputs, dual 4 – 20mA inputs, dual 0 – 10 V inputs, 2 PWM outputs

Node-RED™ is a trademark of the JS Foundation.
 JAVA™ is a trademark of Oracle.
 Python™ is a trademark of the Python Software Foundation

Node-RED™ – MC 100 Gateway Layer Model flow-based programming tool



Product	Description	MC100 GPIO	
		Terminal	Gateway
Characteristic feature			
General			
Type	Wireless 4G LTE gateway with GPIO interfaces	x	x
Dimensions (W x H x D)	120 x 75 x 35mm	x	x
Supply voltage	8 to 30V DC	x	x
Operation temperature	-20°C to +70°C	x	x
Housing	Plastic	x	x
Mounting	Wall mounting (DIN rail adapter optional)	x	x
Mobile			
Supporting networks	LTE Cat1 (4G): Band 1,3,5,7,8 and 20	x	x
	HSDPA/HSUPA/HSPA+ (3G): Band 1,5,8, all bands with diversity	x	x
	GSM/GPRS/EDGE (2G): Band 3,8	x	x
Transmission rates LTE	Up to 5 Mbps uplink and 10 Mbps downlink	x	x
Transmission rates HSPA+	Up to 5.76 Mbps uplink and 21.6 Mbps downlink	x	x
Transmission rates EDGE	Up to 236.8 kbps uplink and 236.8 kbps downlink	x	x
Transmission rates GPRS	Up to 85.6 kbps uplink and 85.6 kbps downlink	x	x
Antenna connections	SMA (female)	2	2
Controller, memory and OS			
Controller	ARM Cortex-A7, 528 MHz	x	x
RAM	512 MB	x	x
Flash	4 GB	x	x
OS	OpenWrt Linux	x	x
Programmable	C/C++, Python™, Java™, Node-RED™ or others	x	x
Interfaces controller board (sides)			
Ethernet	10/100 MBit/s	1	1
USB	USB 2.0 Type A	-	1
Digital inputs	Galvanic isolated, special common GND (IGND), 0 - 30V, threshold 6V	-	2
Digital outputs	Galvanic isolated, special common GND (IGND), solid state relays, 300mA max low-side-switch to IGND	-	2
RS232	DB9 (RX,TX,RTS,CTS)	-	1
RS485	Plug-in screw-type terminal	-	1
CAN	CAN 2.0B, plug-in screw-type terminal	-	1
Power	Plug-in screw-type terminal	1	1
LED 1	Power	x	x
LED 2 and 3	Free programmable	x	x
LED 4	GSM	-	-
SIM	Mini-SIM (opt. embedded SIM)	x	x
SD card	Micro SD, up to 64 GB (internal)	x	x
WLAN	802.11 b/g/n	-	optional
Interfaces extension board (top)			
Digital inputs	Galvanic isolated 0 - 30V, threshold 6V	8	8
Digital outputs	Galvanic isolated solid state relays, 300mA max	8	8
Analog inputs current	4 - 20mA	2	2
Analog inputs voltage	0 - 10V	2	2
PWM outputs	low-side-switch to GND	2	2
Other properties			
Configurations	Basic configuration via web interface, SSH	x	x
RS232 console port	on RS232 interface (optional)	-	x
Delivery includes			
Wall adapter	Plastic holder	x	x
Connectors	WR-TBL Series 361 - 3.81mm vertical cable entry plug (Würth)	x	x
Printed documentation	Quick Guide	x	x
Part-Number			
MC100 GPIO		160490	160481
MC100 GPIO with WLAN		-	160484

Mistakes and changes are reserved.