

MC2LX8-A

Industrial WiFi 6 (802.11ax) Network Bridge

Description:

The MC2LX8-A connects components that communicate via Ethernet LAN or serial interfaces to other networks via WLAN. The typical usage area for the MC2LX8-A is machine-to-machine communication, locally over WLAN.

Properties:

Hardware:

- Processor: iMX8 (NXP)
- Memory: 512MByte DDR4-RAM and 4GB Flash
- WiFi: 802.11ax for 2.4 + 5 GHz WiFi 6
- Ethernet: 2 x Gigabit LAN interface
- Serial: 1 x RS232 or RS485 serial interface
- USB: 1 x USB2 Port also for interface extensions
- IO: 1 x relay switch (dependent on power connector)
1 x aux input (dependent on power connector)
- Power supply: 10-60V or 802.3af PoE via LAN Port 1
- Housing: Robust aluminum housing with various mounting options

Functions:

- Configuration via website, REST-API or by using the MC-Config program.
- Different bridge modes to connect the LAN clients.
- NAT
- Single Client NAT
- Single Client Cloning
- Level 2 Bridge
- MWLC Mode
- WEP, 802.11i WPA-WPA2-WPA3-AES-TKIP-PSK
- WPA Enterprise 802.1x PEAP LEAP TLS TTLS
- Certificate management for authentication via 802.1x
- SCEP (Simple Certificate Enrollment Protocol)
- MQTT-Client
- Serial-Client via TCP or UDP or MQTT



Device Options:

Mounting:

- 1) side mounting brackets (MC2LX8-A-SL...)
- 2) DIN rail mounting clip (MC2LX8-A-SC...)

Power supply connection:

- 1) 5 pol. M12 connector (MC2LX8-A-Sx-M12)
 - always with relay
- 2) 8pol terminal block (MC2LX8-A-Sx-WK8)
 - always with relay and auxiliary input
- 3) 3pol M8 connector (MC2LX8-A-Sx-M8)

Antenna connector WLAN:

- 1) 2 x RP-SMA

Serial Interface:

- 1) 1 x RS232 (Standard)
- 2) 1 x RS485
- 3) 1 x RS422

Technical data:

Specification:	
Ethernet	2 x 10/100/1000 MBit Auto MDI/MDIX
Serial	1 x RS232, 300-460,8 KBit/s, RTS, CTS, DSR, DTR or RS485
USB	1 x USB 2.0 to connect printers or USB adapter with various other interfaces
Relay	1 x change-over switch max 1A@24V, max 125VAC
AUX-Input	1 x galv. isolated 10 – 72V
Antenna connectors	2 x RPSMA (WiFi)
Power supply	10 – 60 VDC or 802.3af PoE via the LAN Port
Energy consumption	max 7W (4W idle)
Operating temperature range	0-60°C
Dimensions	105x125x35mm
Weight	ca. 500g

WLAN-Interface:																					
Technologies	802.11 ax WLAN (2.4 + 5 GHz Band) IEEE 802.11-Standards: a/b/g/n/ac/ax Features: OFDMA, 1024QAM, MU-MIMO, TPC/DFS, TWT Frequency: 2,4 GHz, 5 GHz Bluetooth: 5.0																				
Antennas:	2 Antennas (2T2R MIMO)																				
Encoding	WEP (64,128bit) + TKIP/AES																				
Security	802.11i WPA(2+3) – PSK 802.1x EAP-PEAP, -TLS, -TTLS, -LEAP																				
Fast Roaming	802.11r + 802.11k																				
Channels	2,4GHz ETSI 1-13, USA/Canada 1-11 5.0GHz ETSI + USA/Canada 24 (36 – 165) (U-NII-1 + UNII-2A + U-NII-2C+U-NII-3)																				
Datarates (max. brutto)	<table border="1"> <thead> <tr> <th>Frequency</th> <th colspan="2">2,4 GHz</th> <th colspan="2">5 GHz</th> </tr> </thead> <tbody> <tr> <td>Channel width</td> <td>20 MHz</td> <td>40 MHz</td> <td>80 MHz</td> <td>160 MHz</td> </tr> <tr> <td>1 Antenna</td> <td>144 MBit/s</td> <td>287 MBit/s</td> <td>600 MBit/s</td> <td>1.201 MBit/s</td> </tr> <tr> <td>2 Antennas</td> <td>287 MBit/s</td> <td>574 MBit/s</td> <td>1.201 MBit/s</td> <td>2.402 MBit/s</td> </tr> </tbody> </table>	Frequency	2,4 GHz		5 GHz		Channel width	20 MHz	40 MHz	80 MHz	160 MHz	1 Antenna	144 MBit/s	287 MBit/s	600 MBit/s	1.201 MBit/s	2 Antennas	287 MBit/s	574 MBit/s	1.201 MBit/s	2.402 MBit/s
Frequency	2,4 GHz		5 GHz																		
Channel width	20 MHz	40 MHz	80 MHz	160 MHz																	
1 Antenna	144 MBit/s	287 MBit/s	600 MBit/s	1.201 MBit/s																	
2 Antennas	287 MBit/s	574 MBit/s	1.201 MBit/s	2.402 MBit/s																	

Order codes:

	Option	Order code
Housing		
	Housing with mounting brackets	MC2LX8-A-SL....
	Housing with DIN-rail-clip	MC2LX8-A-SC....
Power supply connection		
	M12 connector	MC2LX8-A-Sx- M12
	8pol. Weidmüller terminal block	MC2LX8-A-Sx- WK8
	M8 connector	MC2LX8-A-Sx- M8
IO-Option	optional, if not included in connector	
	Relay	MC2LX8-A-Sx-....- REL
	Aux-Input	MC2LX8-A-Sx-....- INP
Serial	Standard: 1 x RS232	MC2LX8-A-Sx-....
	1 x RS422	MC2LX8-A-Sx-xx- RS422
	1 x RS485	MC2LX8-A-Sx-xx- RS485