

Product Change Notification—PCN# **PCN001093**

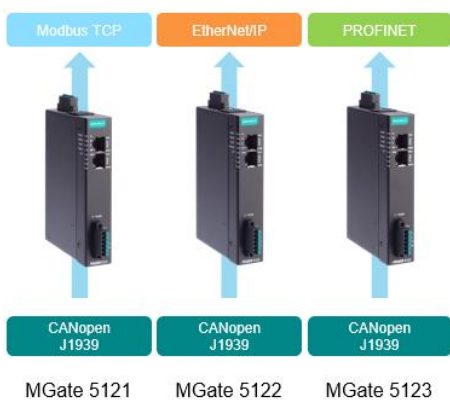
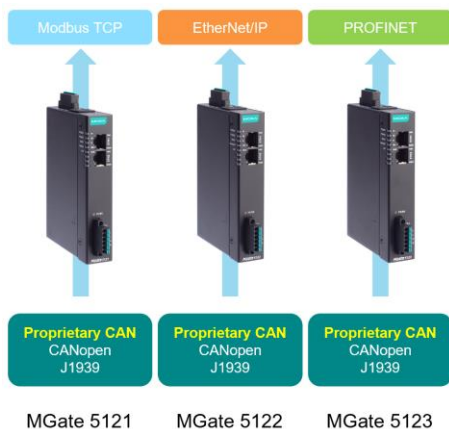
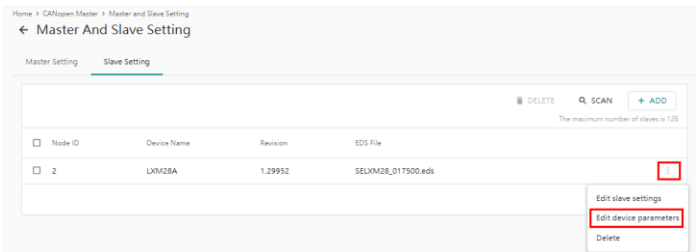
January 10, 2025

Dear Valued Customer,

We would like to inform you that Moxa is going to make changes to the MGate 5121 Series, MGate 5122 Series, and MGate 5123 Series. These changes will be available for download by January 15, 2025. Please review the details below to determine how these changes will affect your products and/or operations.

What will change?

The following changes will be implemented on the new firmware versions:

Current Firmware Version	New Firmware Version (V2.0)
<p>Supports CANopen or J1939</p>  <p>MGate 5121 MGate 5122 MGate 5123</p>	<p>1. New protocol: Supports Proprietary CAN (CAN 2.0A/B)</p>  <p>MGate 5121 MGate 5122 MGate 5123</p> <p>2. CANopen enhancement features:</p> <ul style="list-style-type: none"> Initial Slave Parameters via MGate <p>Some CANopen slave devices don't provide utility to configure its PDO parameters or communication parameters. Firmware version 2.0 supports a new feature to set a user-defined value for the parameter and it will be set via SDO command when booting up and CAN bus is ready for SDO communication.</p> 

Edit Device Parameters

Communication Profile Area

Index	Name	Value	Default Value
0x1014	COB-ID EMCV		\$NODEID+0x80
0x1015	Inhibit Time Emergency		0
> 0x1016	Heartbeat Consumer Entries		-
0x1017	Producer Heartbeat Time	500	0

• Intuitive PDO Configuration

The COB ID is generated automatically with slave ID and PDO number; no need to check COB ID table by user.

Add PDO

Master PDO
TPDO1

TPDO1

☒ Enable

Slave Node ID: 2

Slave PDO: RPDO1

COB ID: 0x 0202

Transmission Type: Event

Inhibit Time (ms): 0

Event Timer (ms): 1000

Fault Protection: Pause

CANCEL SAVE

Also, quick mapping by selecting parameters from the slave EDS file.

Data Mapping

ADD

Bit Position	Object Index	Data Type	Tag Name	Endian
0	0x6060 / 0x00	1 Byte	Modes_of_Ope	None

Add custom object

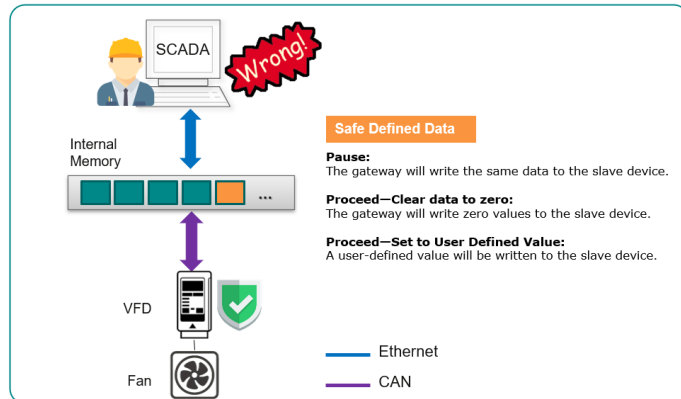
Add mapping object by EDS

- ☐ Target_Torque [0x6071, 0x00] INTEGER16
- ☐ Max_Current [0x6073, 0x00] UNSIGNED16
- ☒ Target_Position [0x607A, 0x00] INTEGER32
- ☒ Profile_Velocity_in_profile_position_mode [0x6081, 0x00] UNSIGNED32
- ☒ Profile_Acceleration [0x6083, 0x00] UNSIGNED32
- ☒ Profile_Deceleration [0x6084, 0x00] UNSIGNED32
- ☐ Torque_Slope [0x6087, 0x00] UNSIGNED32
- ☐ Velocity_Offset [0x60B1, 0x00] INTEGER32
- ☐ Torque_Offset [0x60B2, 0x00] INTEGER16

Total: 26 Selected: 4

CANCEL DONE

• Fault Protection for CANopen and Proprietary CAN (CAN 2.0 A/B)



• Data Endian Swap for CANopen and Proprietary CAN (CAN 2.0 A/B)

Swapping the data. The item may change with different tag types or lengths for raw data type.

None: No swap

Byte swap: Switch the order of bytes.

0x11 22 33 44 55 66 77 88 → 0x22 11 44 33 66 55 88 77

Reverse: Reverse the order of bytes.

0x11 22 33 44 55 66 77 88 → 0x88 77 66 55 44 33 22 11

Reverse with byte swap: Reverse the order of bytes first; then, switch the order of bytes.

0x11 22 33 44 55 66 77 88 → 0x77 88 55 66 33 44 11 22

• Fast Object Search in CANopen Diagnostics

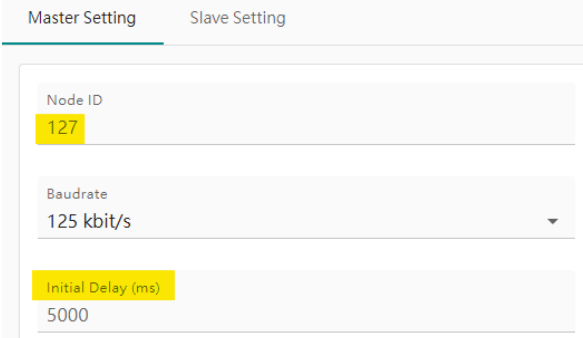
CANopen Diagnostics

Auto Refresh

Overview Slave Status

LXM28		Object Parameter	
Node ID	1	Objects	604
State	Unknown		
Inactive Time (ms)	1092455		
EDS File	SLXMX28_013034E.eds		
		Object Description	
		Index	0x6040
		Name	Controlword
		Data Type	UNSIGNED16
		Access	Read/Write
		Default Value	
		Value	

WRITE READ

	<ul style="list-style-type: none"> • CANopen ID Change Default From 1 to 127 Most CAN devices use lower Node ID. So this version adjusts the MGate default ID to 127 to avoid changing the MGate ID every time. • CANopen/Proprietary CAN(CAN 2.0A/B) Initial Delay Time To allow more flexibility with some legacy CAN devices, which take more time to boot up. 
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Which products will be affected?

Product Name	Current Firmware Version	New Firmware Version
MGate 5121 Series	V1.0.0	V2.0.0
MGate 5122 Series	V1.0.0	V2.0.0
MGate 5123 Series	V1.0.0	V2.0.0

When will the new firmware versions be available?

Product Name	New Version	Available for download
MGate 5121 Series	V2.0.0	By January 15, 2025 https://www.moxa.com/en/products/industrial-edge-connectivity/protocol-gateways/modbus-tcp-gateways/mgate-5121-series#resources
MGate 5122 Series	V2.0.0	By January 15, 2025 https://www.moxa.com/en/products/industrial-edge-connectivity/protocol-gateways/ethernet-ip-gateways/mgate-5122-series#resources
MGate 5123 Series	V2.0.0	By January 15, 2025 https://www.moxa.com/en/products/industrial-edge-connectivity/protocol-gateways/profinet-gateways/mgate-5123-series#resources

If you have any questions, please contact KS Hsu at ks.hsu@moxa.com, or contact your regional sales representative.