

X20CP1686X

High-performance X20 controller

High-performance PLC logic and deterministic network data

PRODUCT SNAPSHOT

BRAND

B&R

FAMILY

B&R X20 PLC

PART

X20CP1686X

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PRODUCT OVERVIEW

High-performance PLC logic and deterministic network data

1

Uses a 1.3 GHz Intel Atom processor

2

Provides 1 GB LPDDR4 memory

3

Includes 2 GB onboard flash

4

Integrates POWERLINK, Ethernet and X2X Link

SYSTEM COMPONENTS

X20 bus base and I/O

24 V DC supply

CompactFlash or onboard application storage

Automation Studio project

TECHNICAL NOTE

Create a complete project and storage backup, then confirm runtime version, licenses, interface addresses and POWERLINK timing before production release.

TECHNICAL DATA

PARAMETER	VALUE
Processor	Intel Atom; 1.3 GHz
Main memory	1 GB LPDDR4
Onboard flash	2 GB

PARAMETER	VALUE
Removable media	CompactFlash
Interfaces	Ethernet; POWERLINK; 2 USB; RS232; X2X Link
Power consumption	7.5 W

ENGINEERING NOTE

Create a complete project and storage backup, then confirm runtime version, licenses, interface addresses and POWERLINK timing before production release.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
6SE7031-7HG84-1JC2	Related industrial automation product	View 6SE7031-7HG84-1JC2 page
6SE7031-7HG84-1JC1	Related industrial automation product	View 6SE7031-7HG84-1JC1 page
AB9001-B	Related industrial automation product	View AB9001-B page
RPBA-01-3ABD64606859	Related industrial automation product	View RPBA-01-3ABD64606859 page
330877-080-37-00	Related industrial automation product	View 330877-080-37-00 page
330909-00-80-10-02-00	Related industrial automation product	View 330909-00-80-10-02-00 page
330703-000-050-10-02-00	Related industrial automation product	View 330703-000-050-10-02-00 page
330703-000-060-10-02-00	Related industrial automation product	View 330703-000-060-10-02-00 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

High-speed machine control

Uses a 1.3 GHz Intel Atom processor

POWERLINK motion system

Provides 1 GB LPDDR4 memory

Data-intensive automation cell

Includes 2 GB onboard flash

Controller modernization

Integrates POWERLINK, Ethernet and X2X Link

PRODUCT PRECAUTIONS

- 1 Verify the full X20CP1686X marking and its assigned B&R X20 PLC position before work.
- 2 Place the connected machine or process in the approved maintenance state.
- 3 Isolate the applicable supply and high-performance plc logic and deterministic network data field energy before disconnecting conductors.
- 4 Record connector, conductor, address and software identities before removal.
- 5 Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
- 6 Confirm the installed X20 bus base and I/O and 24 V DC supply against the approved project.
- 7 Restore power in a controlled sequence and review device, network and host diagnostics.
- 8 Prove the intended high-speed machine control function and retain the final test result.

ENGINEER FAQ

Q1 Does X20CP1686X match X20 bus base and I/O in a High-speed machine control installation?

Verify the complete X20CP1686X marking, the documented B&R X20 PLC position and the installed X20 bus base and I/O before fitting the assembly.

Q2 How should X20CP1686X be wired when it must uses a 1.3 ghz intel atom processor?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for X20CP1686X; then continuity-test the affected path.

Q3 Which B&R X20 PLC records should be captured before removing X20CP1686X?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with X20CP1686X before disconnection.

Q4 What controlled test confirms that X20CP1686X can provides 1 gb lpddr4 memory?

Apply the approved field or simulated stimulus, observe the B&R X20 PLC indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which 24 V DC supply condition should be checked when X20CP1686X reports an abnormal state?

Check the 24 V DC supply supply, seating and connection first, then compare channel diagnostics with the recorded X20CP1686X baseline.

Q6 Can X20CP1686X be moved directly into POWERLINK motion system without validating Automation Studio project?

No. Confirm the Automation Studio project, revision, connection scheme and B&R X20 PLC configuration before transferring X20CP1686X to that duty.

Q7 What maintenance evidence is required after X20CP1686X is used for Data-intensive automation cell?

Retain the nameplate record, corrective action, final diagnostics and a controlled data-intensive automation cell functional-test result for X20CP1686X.

Q8 How should X20CP1686X be returned to service in Controller modernization?

Restore power under control, verify includes 2 gb onboard flash, exercise the intended signal path and release X20CP1686X only after the B&R X20 PLC remains in its approved operating state.

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