Emerson 5X00481G01

ENGINEERING GUIDE / field replacement and commissioning

Emerson 5X00481G01 is an Ovation OCR1100 Controller Atom CPU Module identified by Emerson as the copper-RJ45 version for the OCR1100 controller platform.

01 Job scope and safe-work boundary

The offered item is the 5X00481G01 Atom CPU module; OCR1100 chassis, power supply, I/O modules, cabinet, network equipment and software services are separate unless itemized in the quotation.

Back up the controller	Save the approved Ovation database, configuration and tuning before hardware work.
Verify the exact module	Compare 5X00481G01, controller revision and copper-RJ45 option with the installed records.
Use ESD controls	Handle the CPU module under the site electrostatic-discharge procedure.
Confirm the assembly	Inspect CompactPCI seating, retention and companion controller hardware before energizing.
Restore network identity	Apply only the approved controller and network configuration; avoid duplicate addresses.
Prove controller service	Verify diagnostics, application execution, communications and representative I/O before release.

Before work starts

Record the complete marking, installed host configuration, connected interfaces and the as-found operating result. Follow the approved site isolation and maintenance procedure before changing the unit.

Environmental and configuration limits

Platform supply	24 VDC, 40 W complete controller specification
Platform operating temperature	0 to 50 deg C for the four-RJ45 option
Platform humidity	0 to 95% RH
Platform redundancy	Automatic failover when configured as an approved redundant controller pair
Programming environment	IEC 61131-3 control languages in the Ovation platform
Application storage	Platform nonvolatile storage retains applications, database, configuration and tuning

02 Readiness and fit

Exact manufacturer part number	5X00481G01
Exact product identity	OCR1100 Controller Atom CPU Module
Interface identity	Copper RJ45 version
Platform	Emerson Ovation OCR1100
Component boundary	CPU module; not a complete controller cabinet
Platform bus structure	CompactPCI standard

Platform processor base frequency	1.1 GHz
Platform memory	1 GB Flash and 256 MB RAM
Platform originated points	Up to 32,000 points
Platform process control tasks	Up to five with configured loop rates
Platform network ports	Four 10/100 Mb Ethernet ports on the copper-RJ45 controller option

Why these checks matter

Exact identity
Keep the complete 5X00481G01 marking with the installed-system record.

Supplied boundary
The offered item is the 5X00481G01 Atom CPU module; OCR1100 chassis, power supply, I/O modules, cabinet, network equipment and software services are separate unless itemized in the quotation.

Evidence boundary
The exact-model sheet identifies 5X00481G01 as an OCR1100 Controller Atom CPU Module. OCR1100 controller capacity and environmental figures describe the complete configured controller platform and are not represented as standalone module ratings.

Mechanical fit
Compare mounting, connector and clearance details with the approved installation drawing.

Electrical fit
Apply ratings only at the component or system level stated in the manufacturer source.

Configuration
Preserve the installed host, channel, project or matched-chain configuration before exchange.

Handling
Handle the CPU module under the site electrostatic-discharge procedure.

Functional proof
Verify diagnostics, application execution, communications and representative I/O before release.

Lifecycle planning
Emerson lists 5X00481G01 within its Ovation factory-certified parts and lifecycle-services resources. Site support planning should still confirm the installed OCR1100 hardware and software revision.

03 Replacement sequence

01	**Record the baseline**	Save the installed marking, host/project configuration and current operating result.
02	**Verify the offered identity**	Compare the offered assembly and its supplied components with the installed unit.
03	**Prepare the interface**	Inspect connectors, routes, mounting and the documented host allocation.
04	**Fit and reconnect**	Use the approved site procedure and restore each documented connection in order.
05	**Restore configuration**	Load or retain the approved project and node assignments as applicable.
06	**Prove operation**	Test the used functions, status and diagnostics under an approved machine state.

07	**Keep the as-left record**	Record the new identity, changes, test results and remaining exceptions.

Installed-system relationship

Emerson identifies 5X00481G01 as the Atom CPU module for an Ovation OCR1100 controller with copper RJ45 networking. The complete part number must be compared with the installed module label, controller assembly and plant configuration before replacement.

The OCR1100 platform uses a CompactPCI structure and can support configured control tasks, Ethernet networking and Ovation I/O integration. These are controller-platform capabilities; the single CPU module should not be treated as a complete controller, cabinet or independent I/O device.

Before exchange, preserve the approved Ovation database, controller settings, network identity and redundancy state. After installation, prove controller health, network communication, application execution and representative I/O paths under an approved plant test plan.

04 Commissioning and acceptance

Identity and fit	Confirm exact order code, supplied scope and host position against the approved record.
Power and protection	Verify operating supply, enclosure, grounding and environmental boundary.
Connection continuity	Trace every used connector, cable or optical/network path end to end.
Configuration restore	Restore the documented project, controller setup and node mapping.
Dynamic proof	Test the used functions and diagnostics with the machine in an approved test state.
Handover	Retain marked-up drawings and as-left test evidence with maintenance records.

Acceptance by application

OCR1100 controller processing

Provide the CPU module identity inside a configured Ovation OCR1100 controller.

Ovation process control

Execute the approved controller database and task schedule as part of the complete platform.

Ethernet controller networking

Support the copper-RJ45 controller option when matched to the installed network design.

Lifecycle replacement

Restore the approved application, communication and redundancy configuration after a controlled exchange.

Engineering questions

What does a controller startup fault after fitting Emerson 5X00481G01 require?	Check module seating, controller power, compatible hardware revision, boot diagnostics and restored configuration before changing application logic.
How is application compatibility verified for Emerson 5X00481G01?	Compare the target OCR1100 controller revision, Ovation software release, archived database and installed I/O architecture with the approved engineering record.
What functional test should follow installation of Emerson 5X00481G01?	Verify controller health, network communication, task execution, alarms and representative local or remote I/O paths without forcing unapproved process outputs.

05 Fault isolation and handover

What must be backed up before replacing Emerson	Archive the approved Ovation application, database, configuration, tuning, network identity and controller revision so the installed control strategy can be restored and compared.
How should Emerson be distinguished from an ent	The exact sheet identifies it as the Atom CPU module. Power, I/O capacity, cabinet and system-level environmental values belong to the complete configured OCR1100 controller.
What network check is critical for Emerson	Confirm the installed copper-RJ45 arrangement, controller network identity, port connections and approved switch topology before reconnection.
How should redundancy be handled when Emerson i	Record primary and standby states, synchronization and failover readiness. Follow the approved Ovation procedure and prove the pair only in a permitted plant state.
What does a controller startup fault after fitti	Check module seating, controller power, compatible hardware revision, boot diagnostics and restored configuration before changing application logic.
How is application compatibility verified for Em	Compare the target OCR1100 controller revision, Ovation software release, archived database and installed I/O architecture with the approved engineering record.
What functional test should follow installation	Verify controller health, network communication, task execution, alarms and representative local or remote I/O paths without forcing unapproved process outputs.

Additional engineer questions

What must be backed up before replacing Emerson 5X00481G01?	Archive the approved Ovation application, database, configuration, tuning, network identity and controller revision so the installed control strategy can be restored and compared.
How should Emerson 5X00481G01 be distinguished from an entire OCR1100 controller?	The exact sheet identifies it as the Atom CPU module. Power, I/O capacity, cabinet and system-level environmental values belong to the complete configured OCR1100 controller.
What network check is critical for Emerson 5X00481G01?	Confirm the installed copper-RJ45 arrangement, controller network identity, port connections and approved switch topology before reconnection.
How should redundancy be handled when Emerson 5X00481G01 is exchanged?	Record primary and standby states, synchronization and failover readiness. Follow the approved Ovation procedure and prove the pair only in a permitted plant state.

Evidence and applicability

Emerson 5X00481G01 factory-certified part sheet, PWS_010199. The exact-model sheet identifies 5X00481G01 as an OCR1100 Controller Atom CPU Module. OCR1100 controller capacity and environmental figures describe the complete configured controller platform and are not represented as standalone module ratings.

Additional installation context: Emerson Ovation Controller Model OCR1100 data sheet, PWS_002863.

Related product references

Catalog navigation only; these items are not identified as substitutes.

Emerson Ovation controller products	Other product reference; confirm the complete installed model.
Emerson Ovation I/O products	Other product reference; confirm the complete installed model.
Emerson Ovation lifecycle parts	Other product reference; confirm the complete installed model.

Engineer handover record

Use this product-specific checklist to keep the offered identity, installed-system decision and acceptance result together. It does not replace the plant safe-work procedure or the applicable manufacturer manual.

Complete offered marking	Record 5X00481G01 exactly, including every suffix and revision visible on the supplied item.
Installed host or channel	Identify the machine, rack, controller, monitor, charger or matched transducer chain that will receive the item.
Interface evidence	Attach clear photographs or drawings of the mating connector, terminal, mounting and cable route.
Configuration evidence	Retain the approved project, channel setup, calibration record or host-equipment instruction used for the work.
As-found result	Record the pre-work indication, diagnostic state, gap, network condition or battery condition that prompted service.
Acceptance method	Define the safe functional test, expected indication and person responsible for release before installation begins.
As-left evidence	Keep the fitted identity, final settings, measured result, photographs and unresolved exceptions with the maintenance record.
Quotation scope	Confirm supplied components, quantity and documentation in writing; companion hardware is included only when itemized.

Final review boundary

Do not transfer a nearby model's ratings, approvals or compatibility to 5X00481G01. Resolve any difference between the supplied marking and the engineering record before energizing or returning the equipment to service.

Discuss the complete marking with Apter Power.
sales13@apterpower.com | +86 18030235313

Return-to-service release gates

Identity release	The fitted item and the record both show 5X00481G01 with no unresolved suffix difference.
Interface release	Mounting, connector, terminal, network or host interfaces have been compared end to end.
Configuration release	The approved channel, project, calibration or host setting is restored and traceable.
Safety release	Guards, covers, grounding, cable support and isolation controls are restored for normal service.
Diagnostic release	Startup and steady-state diagnostics contain no unexplained active fault related to the work.
Functional release	The intended measurement, control, communication or backup function passes the agreed test.
Operations release	The responsible operator or engineer has reviewed the as-left indication and exceptions.
Document release	Photographs, measured results, software references and sign-off are attached to the work record.