

INDUSTRIAL AUTOMATION PRODUCT

6DD1607-0CA1

EXM 438-1 I/O Extension Module

Siemens 6DD1607-0CA1 is the exm 438-1 i/o extension module for SIMATIC S7-400 FM 458. It provides high-speed analog, digital and encoder I/O expansion for FM 458 in the documented installation.

CONTROLLED ENGINEERING COPY

IDENTITY	VERIFIED VALUE
Manufacturer	Siemens
System family	SIMATIC S7-400 FM 458
Part number	6DD1607-0CA1
Document status	Controlled product and system reference

DOCUMENT SCOPE

Exact article identity, official technical data, host matching, installation checks, applications, precautions and controlled acceptance evidence.

MODEL-SPECIFIC ENGINEERING NOTE

Use 6DD1607-0CA1 only in the documented SIMATIC S7-400 FM 458 position. Preserve the exact connectors, power, signal or network configuration and verify high-speed analog, digital and encoder I/O expansion for FM 458 during controlled commissioning.

System Role and Architecture

Siemens 6DD1607-0CA1 is the exm 438-1 i/o extension module for SIMATIC S7-400 FM 458. It provides high-speed analog, digital and encoder I/O expansion for FM 458 in the documented installation.

FUNCTION 1
Product designation: EXM 438-1

FUNCTION 2
Host module: FM 458-1 DP

FUNCTION 3
Digital inputs: 16 at 24 V

FUNCTION 4
Digital input delay: 200 microseconds

RELATED APTER POWER PAGES

1 Siemens 6DD1682-0CC0

2 Siemens 6DD1662-0AB0

3 Siemens 6DD1611-0AG0

4 Siemens 6DD1607-0AA2

5 Siemens 6DD1842-0AA1

6 Siemens 6DD1660-0AE0

7 Siemens 6DD1600-0AK0

MATCHED SYSTEM COMPONENTS

NO.	DOCUMENTED COMPONENT / ROLE
01	SIMATIC S7-400 FM 458
02	Matched SIMATIC S7-400 FM 458 host or field system
03	Documented power, signal, communication and protective interfaces
04	Approved engineering configuration and acceptance record

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	SIMATIC S7-400 FM 458
Interface role	high-speed analog, digital and encoder I/O expansion for FM 458
Field / power context	documented SIMATIC S7-400 FM 458 installation
Commissioning evidence	Identity, wiring, configuration, diagnostics and controlled response recorded

INSTALLATION AND CONNECTION CHECKS

1 Confirm the complete 6DD1607-0CA1 marking and the documented EXM 438-1 I/O Extension Module execution.

2 Place the machine, controller and affected process in the approved maintenance state.

3 Isolate all hazardous energy and prove the safe state before disconnecting hardware.

4 Record the installed position, every terminal or port, and the active engineering configuration.

Technical Specifications

Technical values below are limited to the named product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Product designation	EXM 438-1	Analog outputs	4 x 16 bit plus 4 x 12 bit, +/-10 V
Host module	FM 458-1 DP	16-bit output conversion	2 microseconds
Digital inputs	16 at 24 V	12-bit output conversion	4 microseconds
Digital input delay	200 microseconds	Analog input conversion	45 microseconds
Digital outputs	8	Encoder interfaces	Up to 12 encoders
Digital output rated current	50 mA	Module supply	5 V DC plus external 24 V DC
Analog inputs	5 differential, +/-10 V, 12 bit	Typical current consumption	1.5 A

RELATED PRODUCT PAGES

1 Siemens 6DD1682-0CC0

2 Siemens 6DD1662-0AB0

3 Siemens 6DD1611-0AG0

4 Siemens 6DD1607-0AA2

5 Siemens 6DD1842-0AA1

6 Siemens 6DD1660-0AE0

7 Siemens 6DD1600-0AK0

ENGINEERING BOUNDARY

Confirm 6DD1607-OCA1, its exact SIMATIC S7-400 FM 458 host, power source, installed position, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

PRE-INSTALLATION CHECKS

- 1

Confirm the complete 6DD1607-OCA1 marking and the documented EXM 438-1 I/O Extension Module execution.
- 2

Place the machine, controller and affected process in the approved maintenance state.
- 3

Isolate all hazardous energy and prove the safe state before disconnecting hardware.
- 4

Record the installed position, every terminal or port, and the active engineering configuration.

Applications and Engineering Context

SIMATIC S7-400 FM 458 installation

Uses 6DD1607-0CA1 for high-speed analog, digital and encoder I/O expansion for FM 458 in the documented host architecture.

Controlled replacement

Restores the exact 6DD1607-0CA1 identity, interfaces and configuration before energization.

Commissioning verification

Checks 6DD1607-0CA1 diagnostics and the affected function under controlled conditions.

Lifecycle maintenance

Preserves the approved SIMATIC S7-400 FM 458 wiring, network and engineering record during service work.

TECHNICAL NOTE

Use 6DD1607-0CA1 only in the documented SIMATIC S7-400 FM 458 position. Preserve the exact connectors, power, signal or network configuration and verify high-speed analog, digital and encoder I/O expansion for FM 458 during controlled commissioning.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	6DD1607-0CA1 recorded
Host / carrier	SIMATIC S7-400 FM 458
Physical interface	Installed terminals, ports and signal paths matched to the as-found record
Configuration	Approved hardware and engineering configuration restored
Functional proof	Controlled test confirms high-speed analog, digital and encoder I/O expansion for FM 458

IMPORTANT NOTICE

Confirm 6DD1607-0CA1, its exact SIMATIC S7-400 FM 458 host, power source, installed position, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

Related Products and Source Record

Brand-qualified Apter Power navigation links are provided for system planning only; manufacturer evidence remains the named source record.

RELATED PRODUCTS ON APTER POWER

1

Siemens 6DD1682-0CC0

View Siemens 6DD1682-0CC0 page

2

Siemens 6DD1662-0AB0

View Siemens 6DD1662-0AB0 page

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Siemens 6DD1611-0AG0

View Siemens 6DD1611-0AG0 page

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Siemens 6DD1607-0AA2

View Siemens 6DD1607-0AA2 page

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Siemens 6DD1842-0AA1

View Siemens 6DD1842-0AA1 page

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Siemens 6DD1660-0AE0

View Siemens 6DD1660-0AE0 page

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Siemens 6DD1600-0AK0

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MANUFACTURER SOURCE RECORD

Siemens ST 400 catalog and exact Industry Mall record for 6DD1607-0CA1 | Official manufacturer evidence verified 28 September 2026

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RECOMMENDATION SCOPE

These links support product navigation and comparison. Technical values in this document are sourced only from the manufacturer record above.