SIEMENS PLC SIMATIC S7-1500 "CPU 1516PRO F-2 PN*" 6ES7516-2GP03-0AB0 MEMORY CARD REQUIRED

Basic Information

- Place of Origin:
- Brand Name: SIEMENS
- Certification:
- Model Number: 6ES7518-4UP00-0AB0
- Minimum Order Quantity:
- Packaging Details: 15,10 x 15,40 x 4,60

Germany

CE

1

100

- Delivery Time: 10-12Days
- Payment Terms: L/C, T/T
- Supply Ability:



Product Specification

 Number Of Technology Modules: 	y 32 TM
 Protection Bating: 	IP20

- Number Of Digital Inputs: 16 DI
- Number Of Motion Control 32 MC Axes:
- Maximum Program 750 KB
 Memory:
- Cpu Type: S7-1500
- Number Of Digital Outputs: 16 DO
- Number Of Analog Outputs: 8 AO
- Operating Temperature -25 To 60 Degrees Celsius Range:
- Number Of Communication 8 CM
 Modules:
- Maximum Data Memory: 12 MB

Product Introduction:

The SIEMENS PLC SIMATIC S7-1500 CPU 1516-2 GP 6ES7516-2GP03-0AB0 is a high-performance and versatile central processing unit (CPU) specifically designed for industrial automation applications. It is part of the SIEMENS SIMATIC S7-1500 series, known for its reliability, flexibility, and advanced features.

Product Information and Specifications:

- Model: CPU 1516-2 GP 6ES7516-2GP03-0AB0

The CPU 1516-2 GP is equipped with a powerful processor that ensures high-performance execution of control programs. It supports multiple programming languages, including ladder logic, function blocks, and structured text, providing flexibility and ease of use for various control tasks.

In terms of memory capacity, the CPU 1516-2 GP offers ample storage space for programs and data. Although specific details were not provided in the query, typical configurations of the CPU include program memory ranging from 4 MB to 12 MB and data memory ranging from 4 MB to 12 MB. This allows users to store large and complex control programs and data structures required for the PLC's operation.

The CPU 1516-2 GP is designed to handle demanding automation applications and complex control tasks. It offers advanced features such as built-in diagnostics, security functions, and high-speed communication interfaces, enabling seamless integration with other devices and systems within the automation network.

Programming and configuration of the CPU 1516-2 GP are typically performed using Siemens' TIA Portal (Totally Integrated Automation Portal) software. The TIA Portal provides a comprehensive engineering environment for efficient programming, simulation, and diagnostics, ensuring streamlined development and maintenance of automation projects. Product Attributes:

- Model: CPU 1516-2 GP 6ES7516-2GP03-0AB0
- Processor: Powerful processor for high-performance control program execution
- Programming Languages: Supports ladder logic, function blocks, and structured text
- Memory Capacity: Ample storage space for programs and data
- Advanced Features: Built-in diagnostics, security functions, high-speed communication interfaces
- Engineering Software: Programmed and configured using Siemens' TIA Portal
- High Performance: Designed for demanding automation applications and complex control tasks

In summary, the SIEMENS PLC SIMATIC S7-1500 CPU 1516-2 GP 6ES7516-2GP03-0AB0 is a high-performance and versatile CPU offering powerful processing capabilities, ample memory capacity, and advanced features. It is designed to handle complex automation applications and demanding control tasks with precision and efficiency. With its advanced functionalities and flexibility, it is an ideal choice for a wide range of industrial automation applications, ensuring reliable and high-performance control.

General information	
Product type designation	CPU 1516pro F-2 PN
HW functional status	FS01
Firmware version	V3.1
 FW update possible 	Yes
Product function	
 I&M data 	Yes; I&M0 to I&M3
 Isochronous mode 	Yes; Via X1, with minimum OB 6x cycle of 500 µs
● SysLog	Yes
Engineering with	•
 STEP 7 TIA Portal configurable/integrated from version 	V19 (FW V3.1); with older TIA Portal versions configurable as 6ES7516-2GN00-0AB0
Configuration control	
via dataset	No
Control elements	
Mode selector switch	1
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Mains buffering	
 Mains/voltage failure stored energy time 	5 ms
Input current	
Current consumption (rated value)	0.22 A
Current consumption, max.	0.35 A
Inrush current, max.	0.63 A; Rated value
l²t	0.3 A ² ·s
from supply voltage 1L+, max.	0.35 A
Power	

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Engineering with	
 STEP 7 TIA Portal configurable/integrated from version 	V19 (FW V3.1); with older TIA Portal versions configurable 6ES7516-2GN00-0AB0
Configuration control	
via dataset	No
Control elements	
Mode selector switch	1
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Mains buffering	•
 Mains/voltage failure stored energy time 	5 ms
Input current	
Current consumption (rated value)	0.22 A
Current consumption, max.	0.35 A
Inrush current, max.	0.63 A; Rated value
l²t	0.3 A ² ·s
from supply voltage 1L+,	0.35 A

Infeed power to the	2 275 W
backplane bus	
Power loss	
Power loss, typ.	3.3 W
Memory	
Number of slots for	1
SIMATIC memory card	
SIMATIC memory card	Yes
required	
Work memory	
 integrated (for 	3 Mbyte
program)	
 integrated (for data) 	7.5 Mbyte
Load memory	
 Plug-in (SIMATIC 	32 Gbyte
Memory Card), max.	
Backup	
 maintenance-free 	Yes
CPU processing times	
for bit operations, typ.	6 ns
for word operations, typ.	7 ns
for fixed point arithmetic.	0
typ.	8118 118
for floating point	27 22
arithmetic, typ.	o/ ns
CPU-blocks	1
Number of elements	
(total)	\mathbb{B} UUU; BIOCKS (UB, FB, FC, DB) and UD IS
DB	1
	1 60 999; subdivided into: number range that can be used by
Number range	the user: 1 59 999. and number range of DBs created via SFC
	86: 60 000 60 999
	7.5 Mbyte; For DBs with absolute addressing. the max. size is 64
● Size, max.	KB
FB	1
Number range	0 65 535
• Size, max	1 Mbyte
FC	I
Number range	0 65 535
	1 Mbyte
• Size, max.	
OP	
OB	1 Mbyto
OB • Size, max.	1 Mbyte
OB • Size, max. • Number of free cycle	1 Mbyte 100
OB • Size, max. • Number of free cycle OBs	1 Mbyte 100
OB • Size, max. • Number of free cycle OBs • Number of time alarm	1 Mbyte 100 20
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs	1 Mbyte 100 20
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm	1 Mbyte 100 20 20
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs	1 Mbyte 100 20 20
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic	1 Mbyte 100 20 20 20: With minimum OB 3x cycle of 250 us
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs	1 Mbyte 100 20 20 20 20; With minimum OB 3x cycle of 250 μs
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of isochronous mode OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1
OB Size, max. Number of free cycle OBs Number of time alarm OBs Number of delay alarm OBs Number of cyclic interrupt OBs Number of process alarm OBs Number of DPV1 alarm OBs Number of isochronous mode OBs Number of technology	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of isochronous mode OBs • Number of technology synchronous alarm OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of isochronous mode OBs • Number of technology synchronous alarm OBs • Number of startup OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of isochronous mode OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of isochronous mode OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 2 1 2 1 2 1
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs • Nesting depth	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs • Number of diagnostic alarm OBs • Number of diagnostic alarm OBs • Number of diagnostic alarm OBs • Nesting depth • per priority class	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 2 1 2 4 2 1 2 4 2 2 1 2 4; Up to 8 possible for F-blocks
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs • Nesting depth • per priority class Counters, timers and the	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 2 1 2 1 2 1 2 1 2 1 24; Up to 8 possible for F-blocks r retentivity
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs • Number of diagnostic alarm OBs • Number of diagnostic alarm OBs Nesting depth • per priority class Counters, timers and the S7 counter	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 2 1 2 1 24; Up to 8 possible for F-blocks r retentivity
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs Number of diagnostic alarm OBs Nesting depth • per priority class Counters, timers and the S7 counter • Number	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 24; Up to 8 possible for F-blocks r retentivity 2 048
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs Nesting depth • per priority class Counters, timers and the S7 counter • Number Retentivity	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 24; Up to 8 possible for F-blocks r retentivity 2 048
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of asynchronous error OBs • Number of synchronous error OBs • Number of diagnostic alarm OBs Nesting depth • per priority class Counters, timers and the S7 counter • Number Retentivity — adjustable	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 1 2 1 2 1 2 2 1 2 4 2 2 1 2 4 2 2 1 2 4 2 2 1 2 4 2 2 1 2 2 4 2 2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of technology synchronous alarm OBs • Number of startup OBs • Number of startup OBs • Number of asynchronous error OBs • Number of diagnostic alarm OBs Nesting depth • per priority class Counters, timers and the S7 counter • Number Retentivity — adjustable IEC counter	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 24; Up to 8 possible for F-blocks r retentivity 2 048 Yes
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of technology synchronous alarm OBs • Number of technology synchronous error OBs • Number of asynchronous error OBs • Number of diagnostic alarm OBs Number of diagnostic alarm OBs Nesting depth • per priority class Counters, timers and thei S7 counter • Number Retentivity — adjustable IEC counter	1 Mbyte 100 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 24; Up to 8 possible for F-blocks r retentivity 2 048 Yes
OB • Size, max. • Number of free cycle OBs • Number of time alarm OBs • Number of delay alarm OBs • Number of delay alarm OBs • Number of cyclic interrupt OBs • Number of process alarm OBs • Number of DPV1 alarm OBs • Number of DPV1 alarm OBs • Number of technology synchronous alarm OBs • Number of technology synchronous alarm OBs • Number of technology synchronous error OBs • Number of asynchronous error OBs • Number of diagnostic alarm OBs Nesting depth • per priority class Counters, timers and thei S7 counter • Number Retentivity — adjustable IEC counter • Number	1 Mbyte 100 20 20 20 20; With minimum OB 3x cycle of 250 μs 50 3 1 2 100 4 2 1 24; Up to 8 possible for F-blocks r retentivity 2 048 Yes Any (only limited by the main memory)

Retentivity	
— adjustable	Yes
S7 times	ê
 Number 	2 048
Retentivity	2
— adjustable	Yes
IEC timer	
 Number 	Any (only limited by the main memory)
Retentivity	
— adjustable	Yes
Data areas and their rete	ntivity
Retentive data area (incl. timers, counters, flags), max.	512 kbyte; In total; available retentive memory for bit memories, timers, counters, DBs, and technology data (axes): 472 KB
Flag	
 Size, max. 	16 kbyte
 Number of clock memories 	8; 8 clock memory bit, grouped into one clock memory byte
Data blocks	
 Retentivity adjustable 	Yes
 Retentivity preset 	No
Local data	č
 per priority class, max. 	64 kbyte; max. 16 KB per block
Address area	č
Number of IO modules	8 192; max. number of modules / submodules
I/O address area	•
 Inputs 	32 kbyte; All inputs are in the process image
 Outputs 	32 kbyte; All outputs are in the process image
per integrated IO subsys	tem
- Inputs (volume)	8 kbyte
— Outputs (volume)	8 kbyte
Dimensions	

Dimensions	
Width	135 mm
Height	130 mm
Depth	65 mm; without connection module M12 7/8 inch
Weights	
Weight, approx.	492 g; device only



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