

# SIEMENS

**SIMATIC**

**CiR**

	<b>1</b>
CiR CiR	<b>2</b>
	<b>3</b>
ET 200M	<b>4</b>
I/O      RUN	<b>5</b>
	<b>6</b>
	<b>A</b>

**01/2004**

A5E00299299



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SIMATICR SINECR SIEMENS AG

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CiR  
HW

PROFIBUS-DP I/O

S7-400

CiR  
STEP 7

STEP 7 V5.3 HW

STEP 7

STEP 7

5.3

1

STEP 7

"readme.wri"

STEP 7

**STEP 7**

STEP 7  
STEP 7

STEP 7 <ul style="list-style-type: none"> <li>STEP 7 V5.3</li> <li>STEP 7 V5.3</li> <li>STEP 7 V5.3</li> <li>S5 S7</li> </ul>	STEP 7 S7-300/400	6ES7810-4CA07-8BW0
STEP 7 <ul style="list-style-type: none"> <li>S7-300/400 (LAD)/ (FBD)/ (STL)</li> <li>Standard and System Functions for S7-300/400</li> </ul>	STEP 7 LAD FBD STL	6ES7810-4CA07-8BW1

STEP 7	STEP 7	STEP 7
STL/LAD/FBD SFB/SFC		STEP 7

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STEP 7

- **Help**  
[ ] STEP 7
- [ ]
- [ ] F1
- 
- 

HTML STEP 7 STEP 7 STEP 7

STEP 7 Windows [ ] [ ]  
|SIMATIC|Documentation]

<http://www.siemens.com/automation/partner>

Siemens SIMATIC S7

D 90327

: +49 (911) 895-3200.  
: <http://www.sitrain.com>

**A&D**

24 :



<p>( )</p> <p>24</p> <p>: +49 (180) 5050-222</p> <p>: +49 (180) 5050-223</p> <p>: adsupport@siemens.com</p> <p>GMT: +1:00</p>		
<p>) / ( )</p> <p>: 8:00 5:00</p> <p>: +49 (180) 5050-222</p> <p>: +49 (180) 5050-223</p> <p>: adsupport@siemens.com</p> <p>GMT: +1:00</p>	<p>( )</p> <p>: 8:00 5:00</p> <p>: +1 (423) 262 2522</p> <p>: +1 (423) 262 2289</p> <p>: simatic.hotline@sea.siemens.com</p> <p>GMT: -5:00</p>	<p>/ ( )</p> <p>: 8:00 5:00</p> <p>: +86 10 64 75 75 75</p> <p>Fax: +86 10 64 74 74 74</p> <p>: adsupport.asia@siemens.com</p> <p>GMT: +8:00</p>
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- Service & Support
- 
- 
- Services



1

1.1

CiR  
RUN

1

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"CiR"

"RUN  
CiR"

"  
RUN"

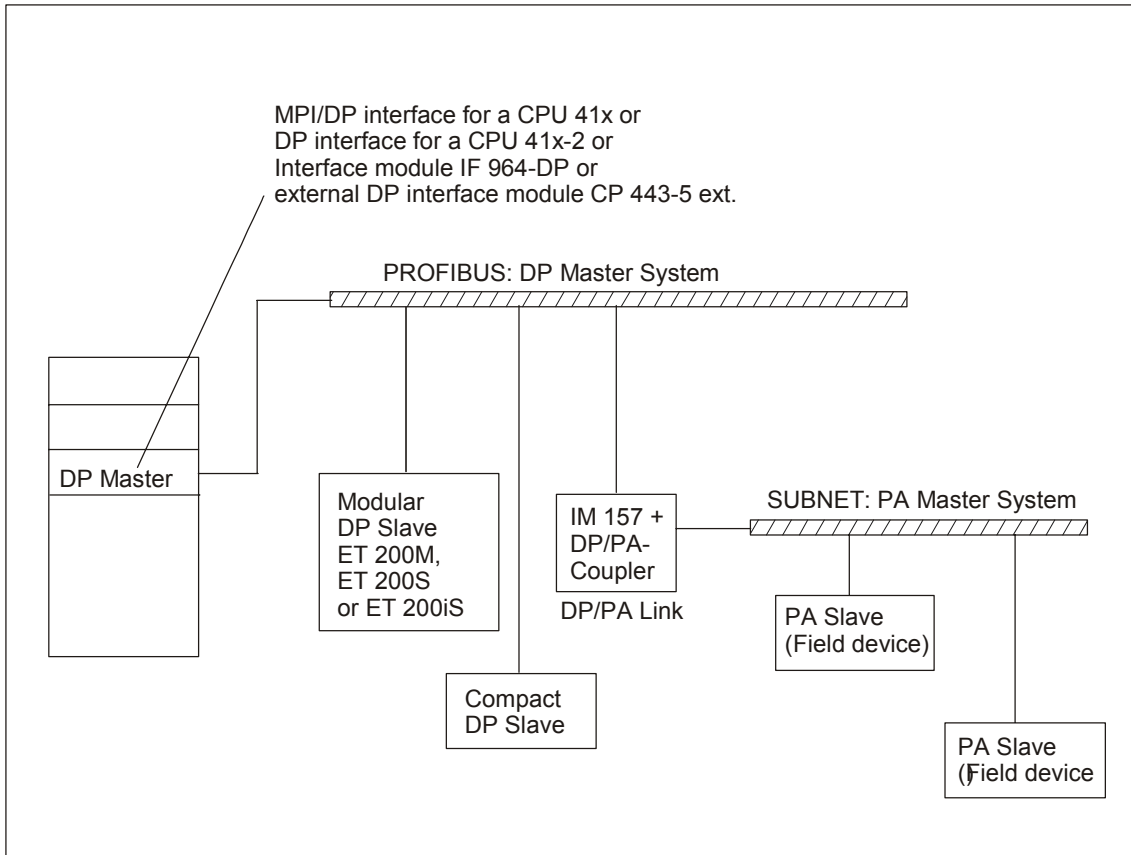
---

I/O

1 DP

1

PA



---

CiR RUN

- V3.1.0 ST-400 CPU(CPU 412 CPU 414 CPU 416  
CPU 417) V3.1.0  
S7-400-H CPU(CPU 414-4H CPU 417-4H)
- DP (CP 443-5 )  
V5.0
- ET 200M : MLFB 6ES7153-2BA00-0XB0  
IM153-2 MLFB 6ES7153-2BB00-0XB0 IM 153-2FO  
ET 200M  
DPV0 (GSD )ET 200M
- :
- PA ( ) : MLFB  
6ES7 157-0AA82-0XA00 DP/PA IM157
- CR2
- CiR  
1 CP 444 IM 467
- 

---

CiR

CiR

---

CiR RUN DP  
PA ( ) DP DPV1  
IM 157 DPV0  
CPU  
CPU

---

CiR

CPU STOP

OB CPU

- OB(OB 40 OB 47)
- OB(OB 80)
- OB(OB 82)
- / OB (OB 83)
- OB (OB 85)
- OB (OB 86)
- I/O OB (OB 122)

---

PCS 7

---

PLC

- ET 200M DP (GSD ) DPV0
- ET 200M
- DP DP
- PA ( ) PA
- IM157 DP/PA
- DP/PA (PA ) DP
- 
- 
- 
- ET 200M ( )
- PA : DP ( )

---

4 DP /

---

( ) RUN

- CPU
- CPU
- DP
- DP
- DP : DP
- DP
- DP DP
- I

**CiR** RUN  
RUN

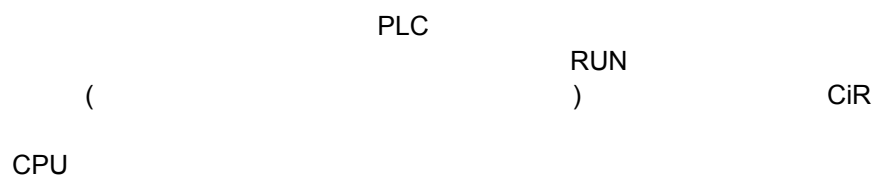
- CiR
  - CiR
  - CiR ( RUN )
- 1 DP CPU



## 2 CiR

## CiR

### 2.1



		CPU	
1	( )	STOP	
2	CiR	STOP	
3		STOP	
4	CiR CiR ET 200M	RUN	

CiR ( I/O 4)

## 2.2 CiR

CiR

		<b>CiR</b>
DP		CiR DP
PA		CiR DP
ET 200M	DP	CiR I/O

STEP 7  
CiR

RUN

CiR

CiR

)

( CiR

### CiR

CiR

- PA ( : DP 15  
6 )
- PA I/O ( : DP 1220  
80

### CiR

CiR

ET 200M

SUM  
I/O

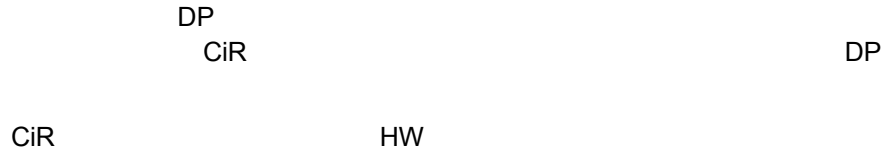
I/O

I/O

STEP 7

### 2.3 CiR I/O

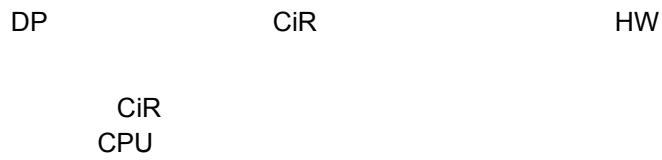
CiR



CiR



<b>I/O</b>	<b>1</b>
	DP
	DP



<b>I/O</b>	<b>1</b>
	CPU
	CPU











---

**DP**      **PA**                      **CiR**  
 DP      PA                      CiR  
 1. [                      ]                      DP  
 2. [                      ]  
 3.                      CiR                      CiR                      CiR  
                     [                      ]  
 4.                      : DP                      15  
     PA                      6  
 5.                      :  
     DP                      45      PA                      36  
 6.                      : DP                      1220      PA                      80  
 7.                      : DP                      1220      PA                      80  
 CiR                      CPU                      CiR  
     CiR                      CiR                      [                      ]  
                     CPU                      CPU CiR  
                     ( : CPU 412  
                     CiR                      1                      1                      CPU  
     CiR                      1                      )                      SFC 104 "CiR"                      1  
     CiR  
     CPU      CiR

---



---

                    CiR                      [                      ]  
 8.                      I/O  
 9. CiR                      [                      ]                      (CiR  
                     ...]                      CiR                      [                      ]  
                     ...]                      )  
 10.  
     [                      ]  
 11. I/O                      [                      ]  
 12.                      CiR                      CPU                      )                      ( CiR

CiR

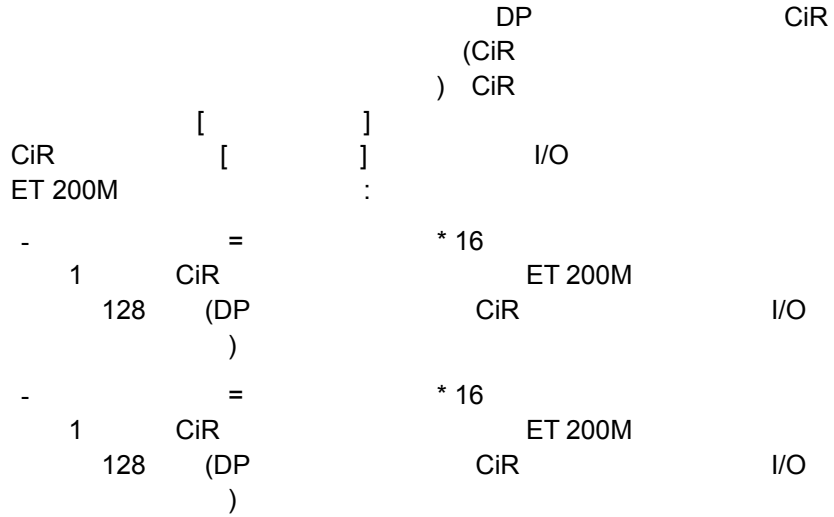
ET 200M

CiR

1. [ ]

2. [ ]

3. [ ]



CiR

STOP

CPU

S7-400  
CiR  
CPU STOP

RUN

CPU  
STEP 7

CPU

CiR

---

### 3.1.3 CiR

#### CiR

1. [ ] DP CiR
2. [ ] [ CiR ] CiR ]

#### STEP 7

- PA CiR
  - CiR
  - DP CiR
- 
- DP CiR CiR
  - DP CiR
- 

#### CiR

1. DP CiR PA ET 200M
2. [ ] [ ]
- CiR CiR CiR DP
- CiR

---

## 3.2 RUN

### 3.2.1

---

CiR DP  
(CPU HW  
( ) ) CiR

---

RUN

1. HW

2.

3.

---

STEP 7 OB CPU

OB OB(OB80) OB(OB82) OB(OB40 OB47)  
OB(OB85) / OB(OB83)  
OB(OB122) OB(OB86) I/O

---

- ET 200M DP CiR (CiR )
- PROFIBUS

---

PROFIBUS DP

PROFIBUS PA

1

1.

2.

( *Installation Manual: Installing S7-400, M7-400 PLC*

)

3.

1.

[       ]

[       ]

2. HW

## ET 200M

- ETM200

( [       ]       )

RUN

1.

(       )

2.

RUN

3.

---

STEP 7

CPU

OB

---

---

4.

- ET 200M DP ) (
- PROFIBUS

---

1

---

I/O

/

/

### 3.2.2 RUN CiR

---

( [ CiR |CiR ]  
CTRL+ALT+F)

---

---

**DP**

**PA**

1. [ DP ] PA  
2. [ ]  
CiR  
[ ]  
CiR

---

• I/O CiR DP /  
DP DP =  
DP DP + 1  
/ 2  
• CiR ET 200M DP  
CiR

---

**ET 200M**

1. [ ET 200M ]  
2. [ ]  
CiR [ ]  
CiR  
CiR 1

---

I/O ET 200M CiR

---

HW

CiR

HW Config - [SIMATIC 400 Station (Configuration) -- CIR\_b]

Station Edit Insert PLC View Options Window Help

[0] UR1

1	PS 405 20A
4	CPU 416-3 DP
X2	DP
X1	MPI/DP
IF1	
6	
7	
8	

PROFIBUS(1): DP master system (1)

(1) IM 153-2

(128) CiR-0

PROFIBUS(3): PA

(3) IM 157 F

(128) CiR-0

[1] IM 153-2, redundant

Slot	Module	Order Number	I Address	Q Add...	C...
1					
2	IM 153-2	6ES7 153-2BA00-0AB0	16380		
3					
4	D116xAC120/230V	6ES7 321-1FH00-0AA0	0...1		
5	AO2x12Bit	6ES7 332-5HB81-0AB0		512...515	
6	CiR module				
7					
8					
9					
10					
11					

Press F1 to get Help.



---

### 3.2.3

CPU

- 4
- DP PA PROFIBUS PROFIBUS
- ET 200M DP HW  
STEP 7  
[ ]
- :
- 1.
- 2. [ ] [ ]
- 3. 1 2
- 4. CPU

- 
- I/O CiR /
  - ET 200M / I/O CiR
-



# 4 ET 200M

## 4.1

---

CiR

---

CiR

DP

CPU RUN

ET 200M(

[ ] )

[ ]

100

3

- 
- 

- 

W#16#7FFF( "0"( ) )

FM )

## 4.2

## CPU

STEP 7  
RUN  
CPU  
CPU  
W#16#3367 I/O  
W#16#350A  
OB83  
OB80  
SFC(SFC57 "PARM\_MOD" )

---

OB83 PCS7 I/O "BAD"

---

CPU OB83  
( )  
OB83 ( W#16#3968 ) OB83  
W#16#3267

---

W#16#3267  
"OK" OB83 PCS7 I/O

---

OB  
DP  
I/O ( )  
OB85 OB122 )  
(  
SFC ) I/O

---

---

SFC

•

• DP ( DP ) DP

**CPU**

SDB CPU ) ( CiR

INTF LED

HALT CPU  
STOP RUN STOP

: OB83

DP

• OB83 ( W#16#3567)

•

• OB83 ( W#16#3467 3468)

## 4.3

### 4.3.1

1. CPU
- 2.
3. CPU

### 4.3.2

: CPU

1. STEP 7:  
CPU  
PCS 7: ( )
2. CPU
3. CPU  
(PCS 7 ): ( )

"0 20 mA" "0 10 V"

1. STEP 7:  
CPU  
PCS 7: ( )
- 2.
3. CPU
4. CPU  
(PCS 7 ):( )

### 4.3.3

1. CPU
2. CPU
3. ( )



# 5 I/O RUN

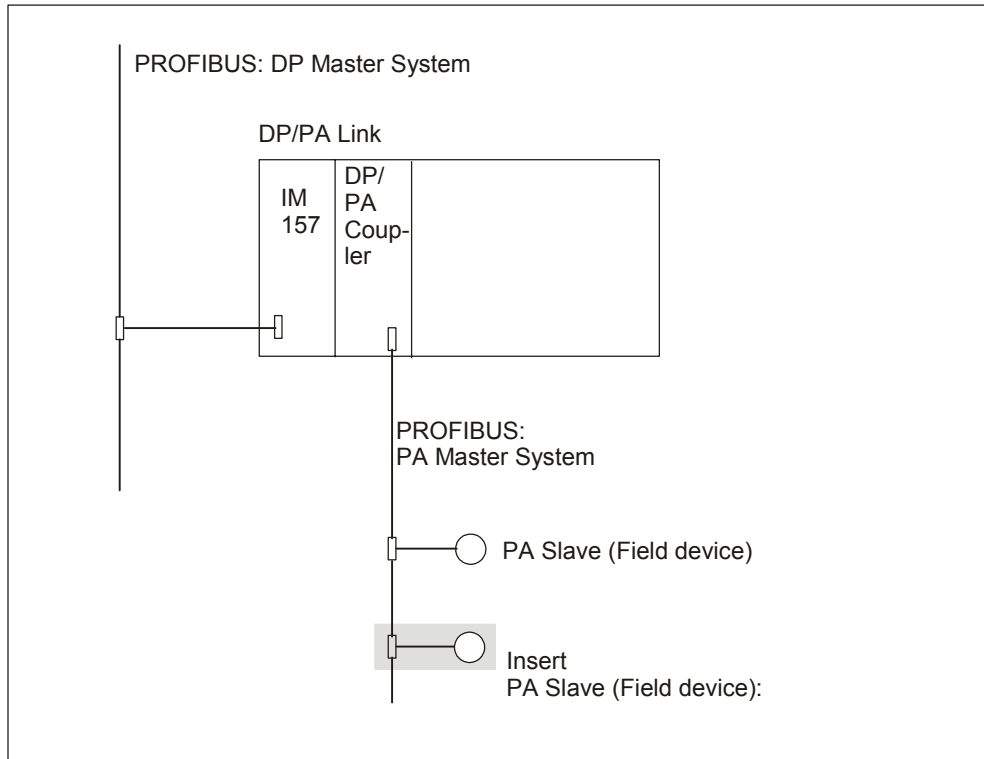
## 5.1 DP PA

- 12Mbps ) (
- ET 200M DP/PA
- PROFIBUS DP PROFIBUS PA
- PROFIBUS PA SplitConnect

### CiR

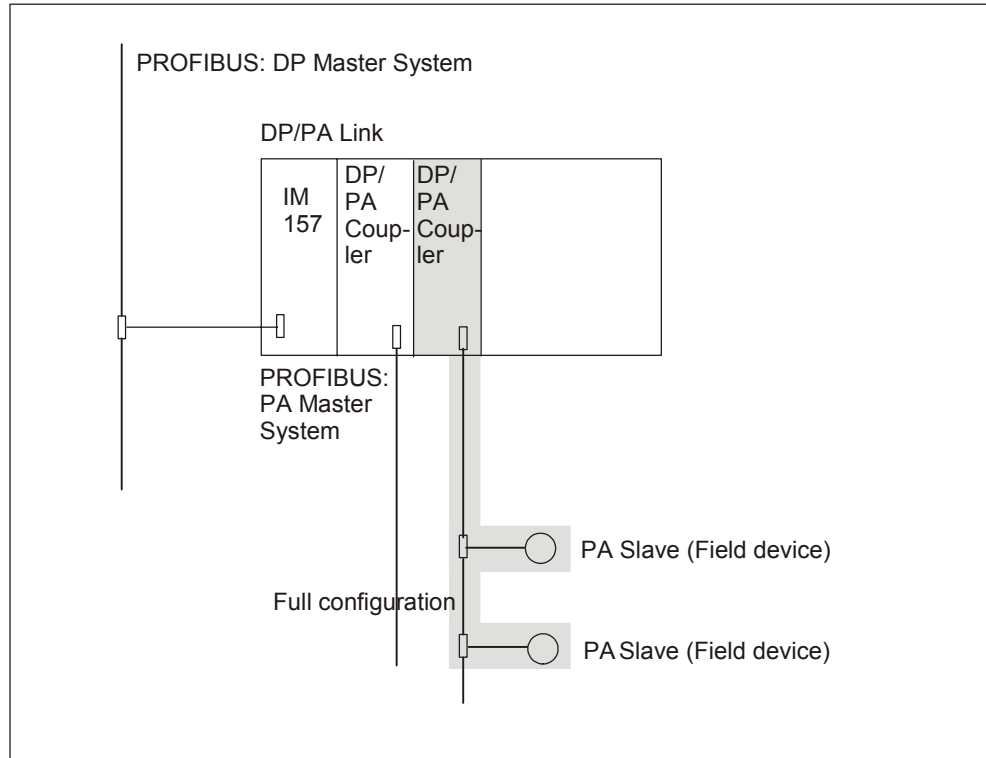


PA ( ) PA



DP/PA PA

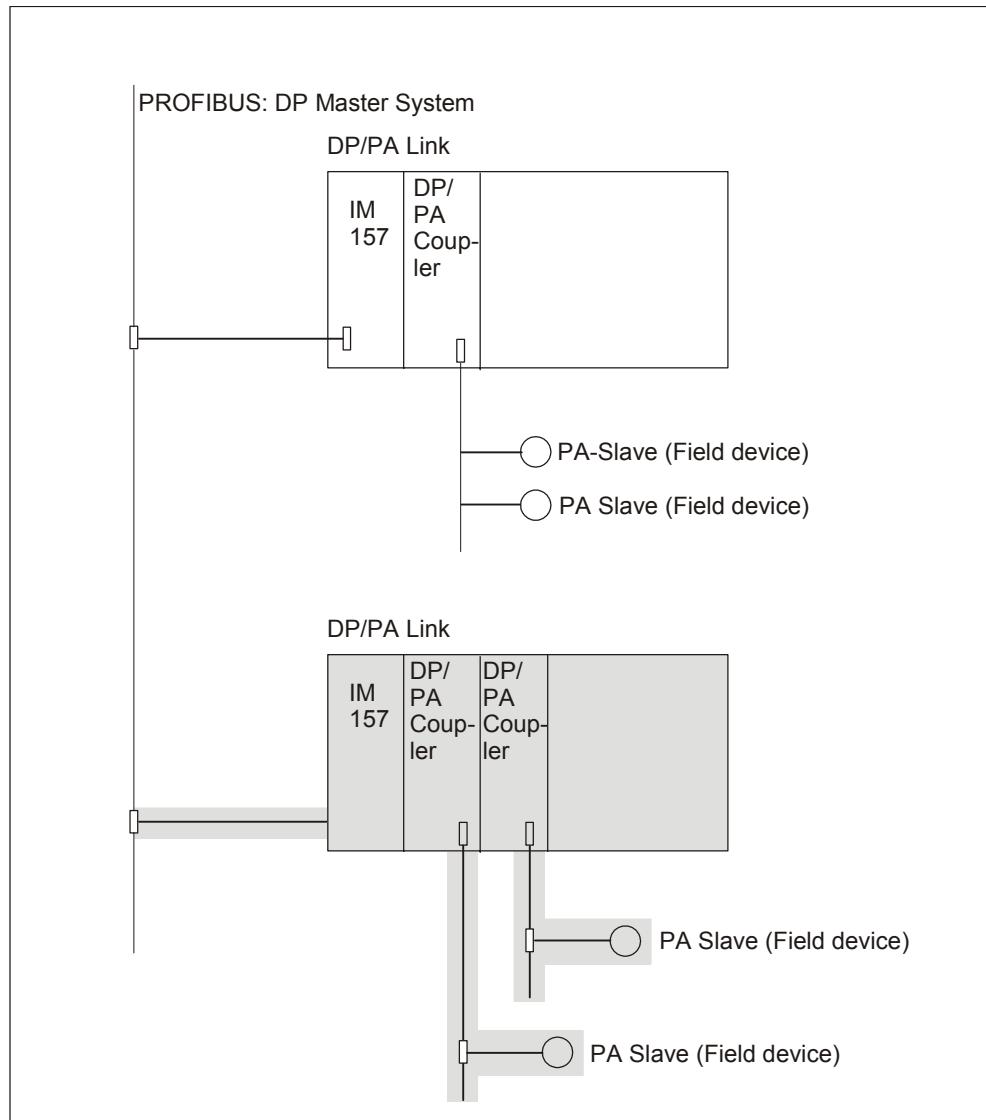
PA PA DP/PA PA



DP/PA DP/PA PA PA PA  
( )

PA

DP/PA



DP/PA

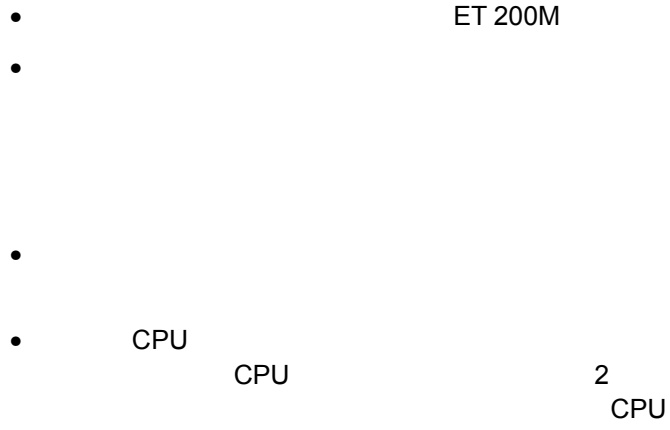
DP

PA

DP

## 5.2 ET 200M

### ET 200M



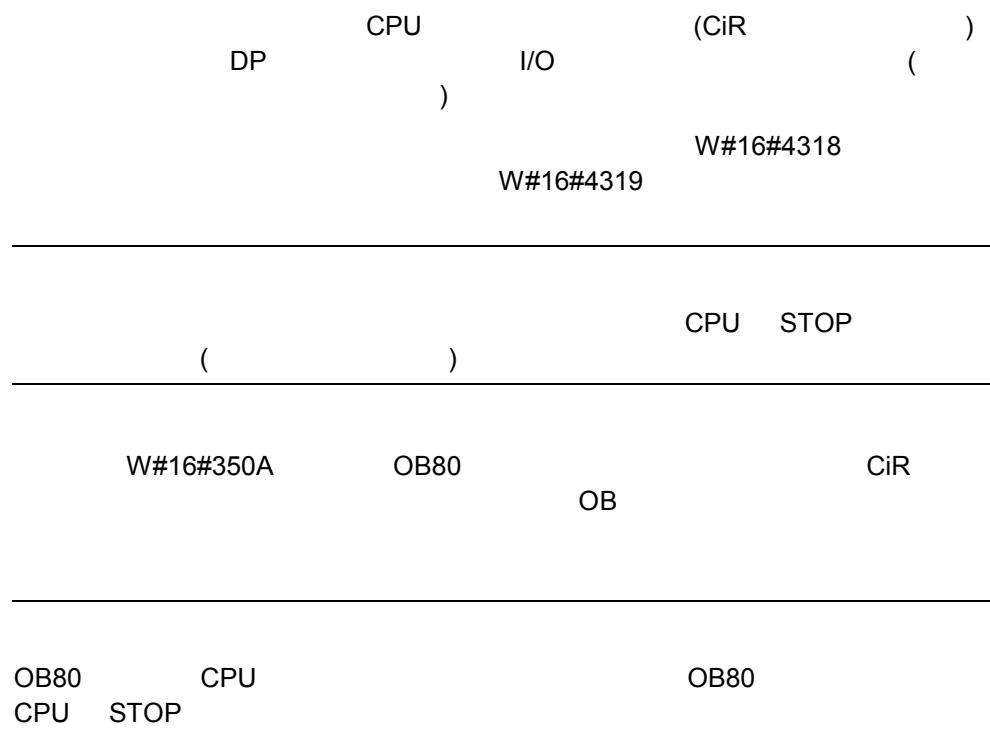


# 6

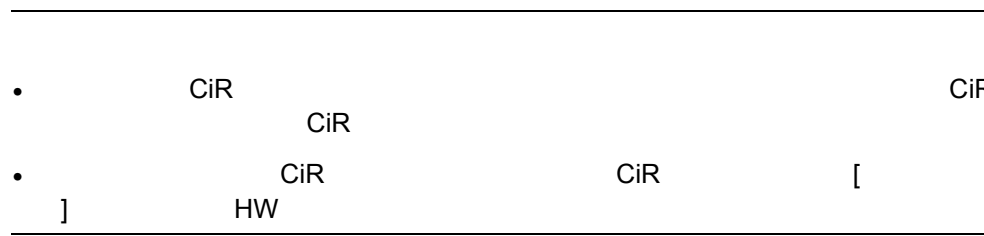
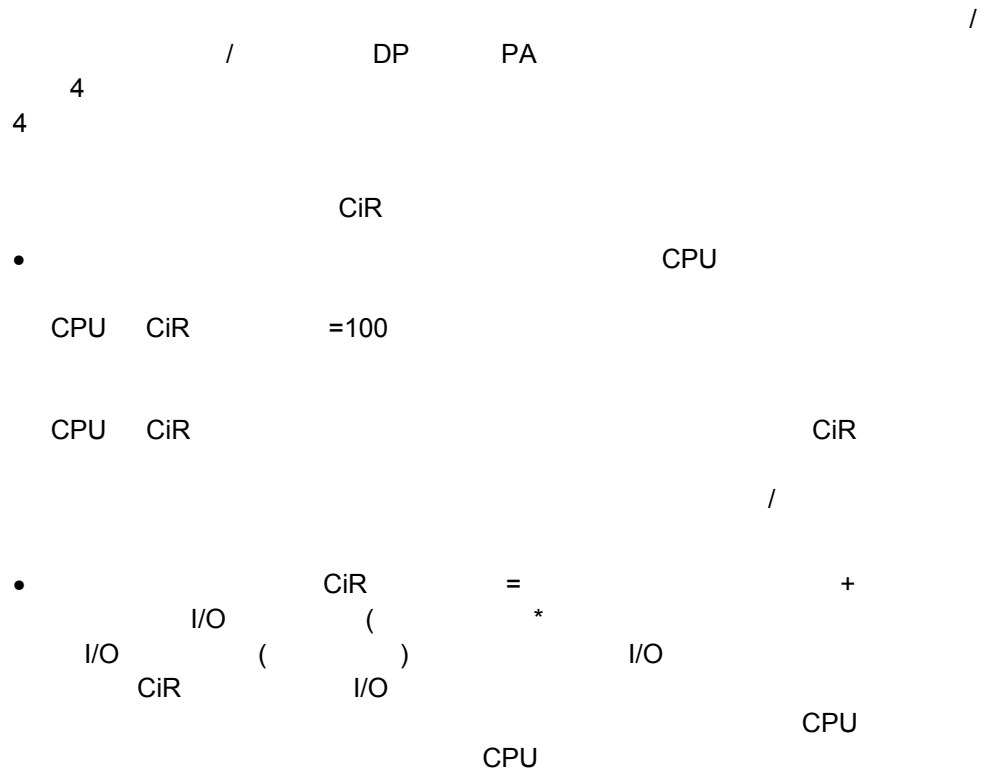
# RUN

## 6.1 RUN

### CPU

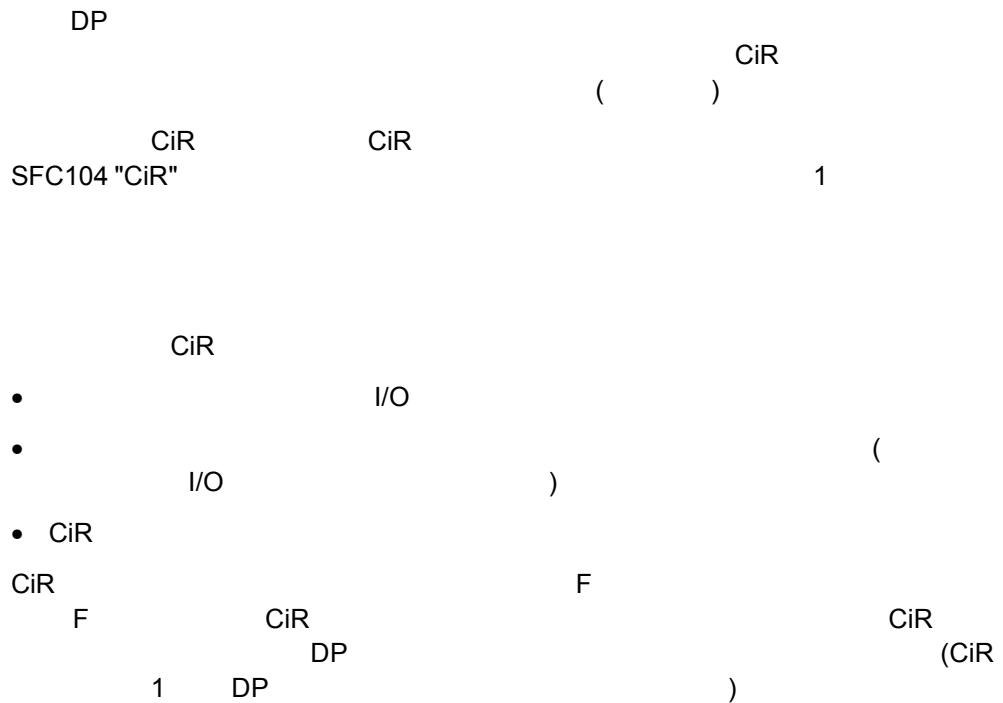
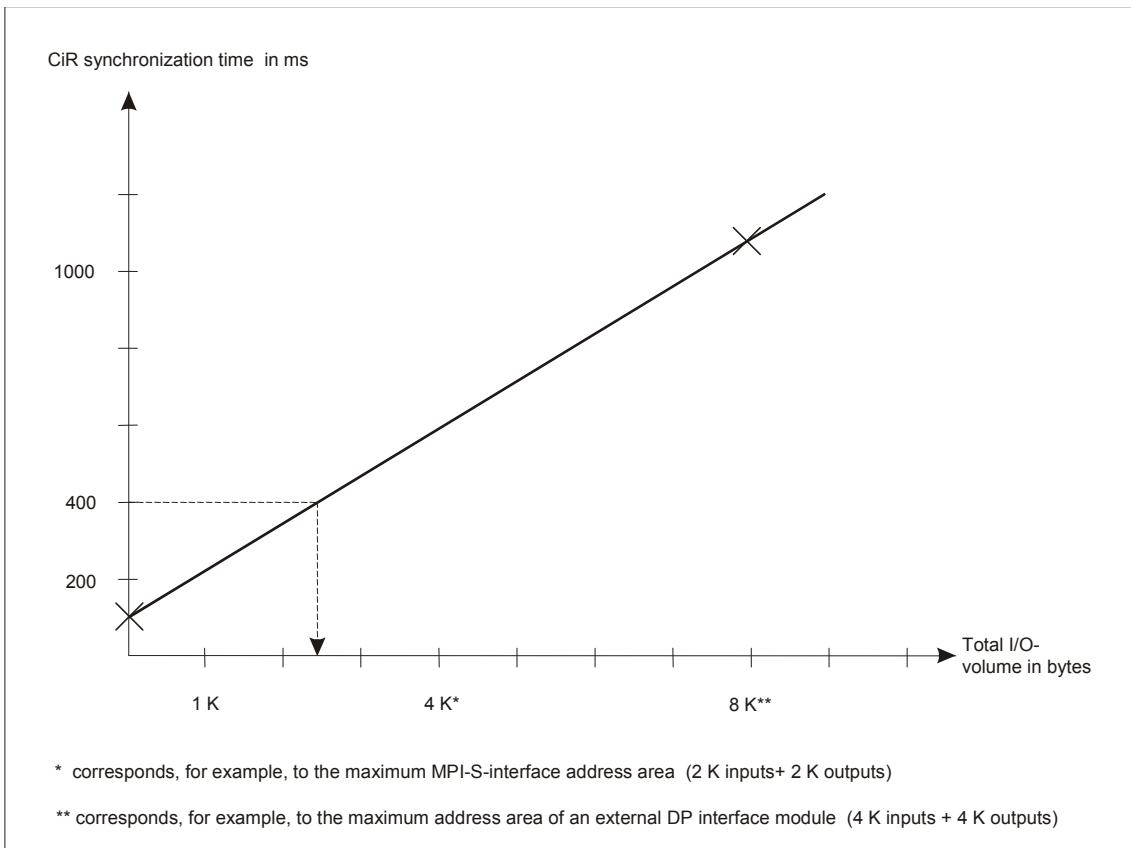


**CPU**



---

CiR I/O  
6ES7417-4XL00-0AB0 CPU 417-4





SDB

INTF LED

CiR  
(

CPU  
) EXTF LED

BUS1F LED

BUS2F LED

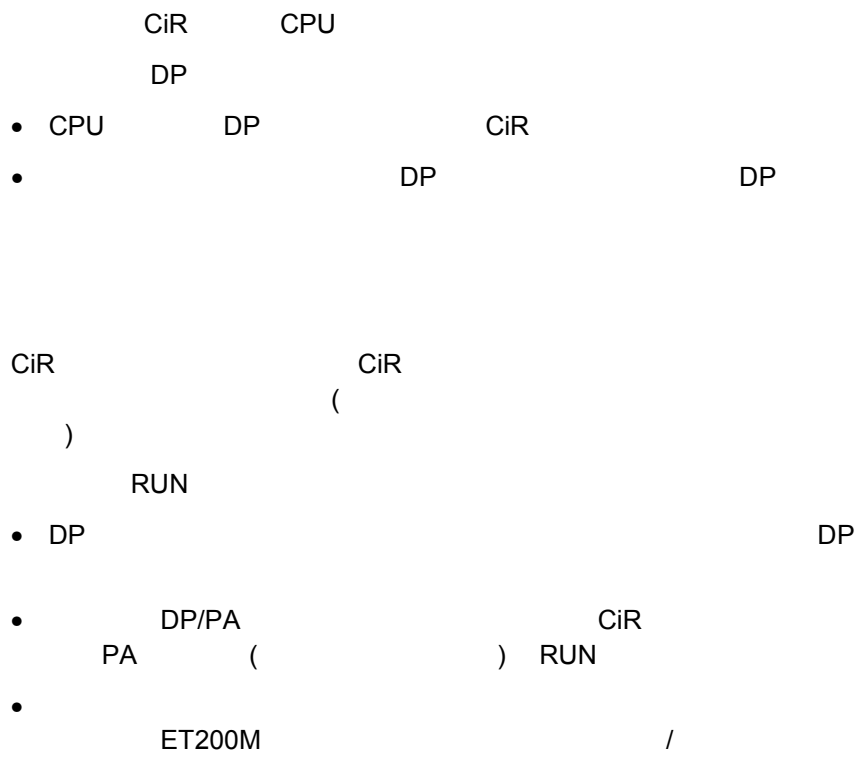
BUS1F LED BUS2F LED

EXTF LED

## 6.2 CiR

	OB
	SDB
	TOD SDB OB 1
PG	[ ] PG
MPI	SSL

# A





**C**

CiR, 1-1, 1-3, 1-4, 1-5, A-2  
    , A-2  
CiR                   , 2-1, 2-2, 2-3, A-2  
  I/O                   , 2-3  
                      , 2-2  
                      , A-2  
CiR                   , 3-2, 3-6  
                      , 3-1  
                      , 3-6  
CiR                   , 3-1  
                      , 3-1  
CiR                   , 3-2  
                      , 3-2  
CiR                   , 2-2, A-2  
                      , A-2  
CiR                   , 6-1, 6-2, 6-3, 6-4  
CiR  
  , 6-6  
CiR                   , 3-7  
                      , 3-7  
CiR                   , 2-2, A-2  
                      , A-2  
CPU                   , 4-2, 4-3, 6-1, 6-6  
  , 6-6  
  , 4-3

  , 4-1, 4-3, 4-4, 4-5  
CPU                   , 4-2  
  , 4-4  
  , 4-1  
  , 5-1, 5-5  
DP                    PA                   , 5-1  
ET200M                   , 5-5  
  , 2-1  
  ,  
4-4   , 4-5  
  , 1-5

**R**

RUN                    CiR                   , 3-9  
RUN  
  CPU                   , 6-1  
  , 4-4  
  , A-1  
  [           ]                   , 3-13  
  , 1-4                   , 1-3, 1-4

