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(12)

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(B1)

|                                           |                 |                      |                                        |
|-------------------------------------------|-----------------|----------------------|----------------------------------------|
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| (21)                                      | 10-2001-0084286 | (65)                 | 2003-0054165                           |
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| (72)                                      | 116 603         |                      |                                        |
| (74)                                      |                 |                      |                                        |
| :                                         |                 |                      |                                        |
|                                           |                 |                      |                                        |
| (54)                                      |                 |                      |                                        |

(Standby)  
(Dual)

1,2 ;

PCI

(Active)

;

PCI ;

.

1

1  
2  
3

2

(RTOS)

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101, 201 : 1

102, 202 : 2

103, 203 :

104, 204 :

105, 205 : PCI

106, 206 :

가 , (fault tolerancy)

가 , (multi-processo

r) (load sharing) (duplex) (synchronized duplex : hot standby) (asynchronous duplex : warm or cold standby) (Process instance)

가

가 (overhead) (active)

(standby) 가 (data consistency) (continuous operation) (active side)

(concurrent write) (TDX-10, No.5 ESS, STAREX Series)가 (TDX-1) (active, standby) (overhead)가

(TDX-1)) 가

가 DCN(Digital Cellular Network) PCS(personal communication service), WLL(wireless local loop) 2G (active, standby) (Concurrent write)

(Local Memory) (Access) (Active) (CPU)가 (Standby) 가 가

(Active, Standby Processor) 가

PC(Program Counter) PC(Program Counter)가

2G (DCN, PCS) , 2.5G 3G (GENEREX, STAREX-IS) (active, standby) (Concurrent write)

(Active) (Standby) (Dual) 1,2 ;

PCI ; PCI

, (RTOS) ,  
 ;  
 ;  
 ; MMC(man machine communication), (shell)  
 .  
 , (Concurrent write  
 ) , PCI  
 , (fault tolerancy)  
 , (reconfiguration) , (rec  
 overy) , ( OS)  
 ,  
 ,  
 ,  
 (critical), (major), (minor) , (major), (  
 minor) (recovery routine) , (critical)  
 (access) , (recovery)  
 ,  
 , / , OS(Operating System)가  
 (Standby Loading)  
 , (Power off),  
 ,  
 ,  
 가 ,  
 , 가  
 ,  
 , 가  
 (graceful) (dirty)  
 가  
 , (dirty)  
 , 가  
 , 가  
 (restart)  
 ,  
 ,  
 ,  
 1 (D  
 ual) 1,2 (101, 102, 201, 202) ,  
 (103, 203) ; (104, 204) ;  
 PCI PCI (105, 205) ,  
 (106, 206)가 (Active) (Standby)  
 ,  
 1 (Main Path) PCI  
 PCI 33MHz DMA(Direct memory access)  
 (MPU)

(RTOS) , 2 (301) , (302) , (303) , (304) , MMC( man machine communication), shell (305) , (303) 3 (RTOS) . (task) , 가 (S101), (Idle) 가(S201), (S202). , (S102). , 가 가 (S103). , 가 (S104), PCI (S203). 가 (S105), (S204). (S 106). 가 , PCI 가 , 2G (Concurrent Write) , 2G D- (MPU) (MMU : Memory Management Unit) , , PCI , (text + static data area) , 가 (dump) , 2G 가 (Path) , / (fault isolation)가 , 2G D- (concurrent write) , / (dump) . (dump time ) , PCI (Program Counter, Register ) , 2G , C- (16-bit wide) , 가 (2byte ) , FIFO(First In First Out), ID ID 가 , S- IPC(Inter Processor Communication) , PCI (Fast Ethernet ) , 가 , 가 .

(57)

1. (Active) (Standby) ,

(Dual) 1,2 ;

;  
PCI ; PCI ;

2.  
1 , PCI

3.  
1 , (dump)

4.  
3 , , PC(Program Counter),  
가

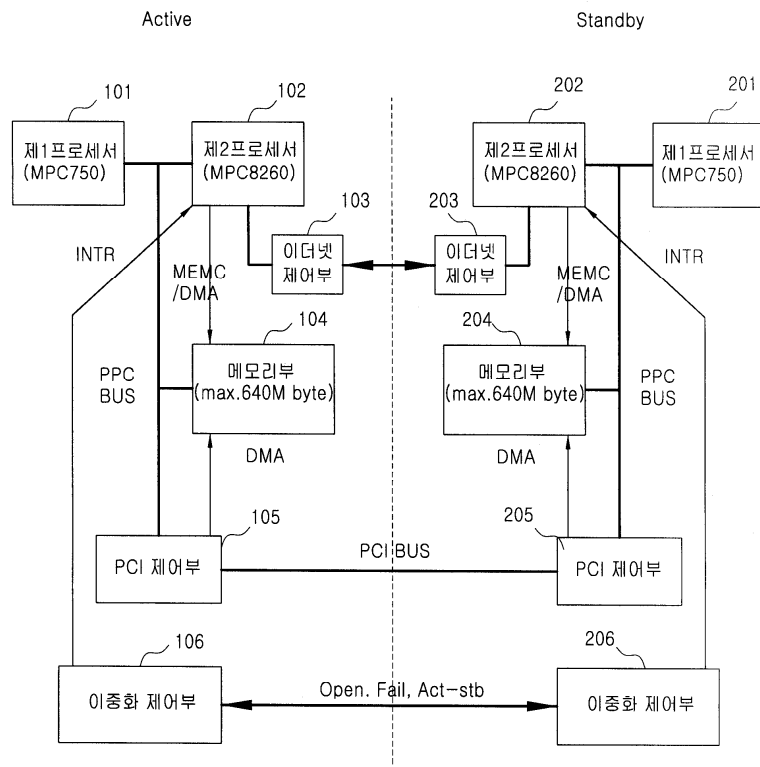
5.  
(Active) (Standby)  
, ;  
, ;  
, ;  
, ;

MMC(man machine communication), (shell)

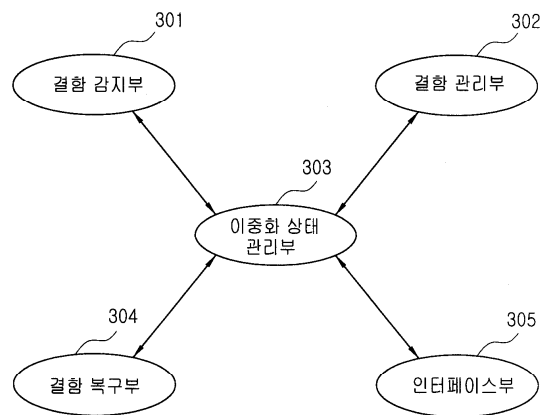
6.  
5 ,  
1 ;  
2 ;  
3

7.  
6 , 2 , 가  
가

1



2



3

