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(21) 10-2001-0076521  
(22) 2001 12 05

(71) 3 416

(72) 209 1407

1 402 10 3 1 2

(74)  
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(54)

neral purpose input output) , 1 2 GPIO(ge  
 , - 2 GPIO 1 GPIO  
 , - 1 GPIO  
 PIO 1 - , - 2 GPIO 1 G  
 O 2 - . (MAC) 2 GPI

4

1 ; (wired LAN) (media access controller; , MAC)

2 MAC ;  
 3a LAN MAC Intersil HFA3842A[2] ;  
 4 MAC ;  
 5 4 MAC , - AMBA ;  
 6 4 MAC , - AMBA ;

\* \*  
 100 : 110 : AMBA  
 120 : 130, 150 : GPIO  
 140 : 160 : -  
 170 : - 180 :  
 190 : 200 :

(media access controller : MAC)

- (loop-back)

1 (wired LAN) (media access controller; , MAC)  
 , MAC(10) BMI(buffered DMA interface)(11), (12), (13),  
 (14), (15), - (16) - (16) (17)  
 (18)  
 MAC(10) (18) (EN)가 '0'  
 , (18) (EN)가 '1' (12)  
 - (16) (13) , MAC(10) 가  
 MAC MAC

2 MAC 2 MAC Intersil  
 HFA3842A[2] Atmel MAC AT76C502A[3] 2  
 MAC(20) AMBA(ARM bus architecture) (21), (22), (23) (base  
 band) (24) (24)  
 (30) , AMBA (21) ARM(Advanced RISC machines)

20) , AMBA (21) (22) (24)  
 (30) (24) (23) AMBA (21) (30) MAC(  
 (30) (handshaking)

3a LAN MAC Intersil HFA3842A[2]

3a (22)가 BBTXPE (30) TXRDY TXRDY가  
 BBTXPE TXCLK가 TXDATA가 (24)  
 (30) BBTXPE가 TXRDY  
 MAC(20) , MAC(20) (30) TXRDY  
 (30)

3b Atmel MAC AT76C502A[3] RFMD RF300[4]

3b (22)가 BBTXPE TXRDY TXRDY가  
 (30) TXCLK가 TXDATA가 (30) TXRDY가  
 (30) (22) BBTXPE , MAC(20)

MAC MAC  
 MAC-PHY (handshaking) 가 MAC  
 MAC MAC

(MAC)

( )

put) : 1 2 GPIO(general purpose input out  
 1 GPIO  
 2 GPIO  
 1 GPIO  
 1 2 GPIO  
 2 GPIO  
 2  
 1

( )

4 MAC(100) AMBA(ARM bus architecture) MAC (110), (120), GPIO (130, 150), (140), (160), (170), (180) (190)

MAC GPIO (130, 150)

(160) (161-164) (165) (165) (165)

'1' - , '0'

(161-164) (165) (TXEN)

(TXEN)가 '1' (161, 162) GPIO (130) , GPIO (BBTXPE) (BBTXDATA) (163, 164) (120) (TXEN)가 '0' GPIO (130) (190) (180) (200)

(171-174) (175) (175) (175)

'1' - , '0'

(171-174) (175) (RXEN)

(RXEN)가 '1' (140) (150) (BBRXPE) (171) GPIO (150) (172-174) (140) (180) (190) (200)

(RXEN)가 '0' , GPIO (150) (172-174) (140)

6 MAC AMBA (110) 5

5 4 MAC(100) , - AMBA (110) (TXEN) '1' (165)

S100 AMBA (110) (120) GPIO (130)

S110 AMBA (110) (120) (165) (TXEN)가 '1' (120) (BBTXPE) (BBTXDA) (161, 162) GPIO (130) , GPIO (130) (120)

TA) (120) S120 AMBA (110) GPIO (130) (120)

IO (130) S130 AMBA (110) (120) GP

6 4 MAC(100) , - AMBA (110) (RXEN) '1' (175)

S200 AMBA (110) (140) GPIO (150)

S210 AMBA (110) GPIO (150) (175)  
 (RXEN)가 '1' GPIO (150)  
 (172, 173, 174) (140) (140)  
 (150) S220 AMBA (110) (140) GPIO (BBRXPE) GPIO  
 S230 AMBA (110) GPIO (150) (150) (1  
 40)

가

(MAC)

(57)

1.

1 2 GPIO(general purpose input output) - 1 GPIO  
 2 GPIO  
 - 1 GPIO 1 GPIO 1 - ;  
 - 2 GPIO 2 GPIO 2 -

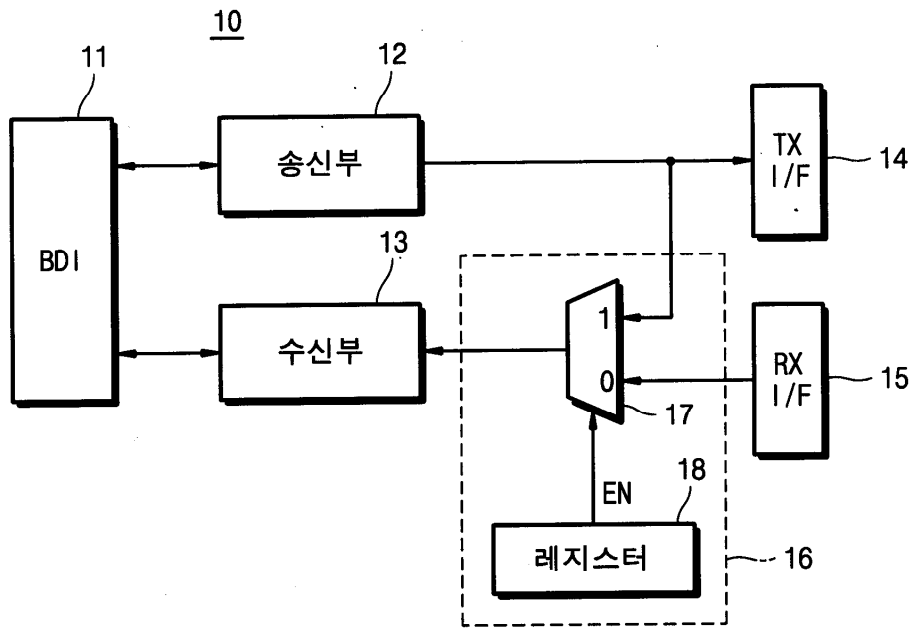
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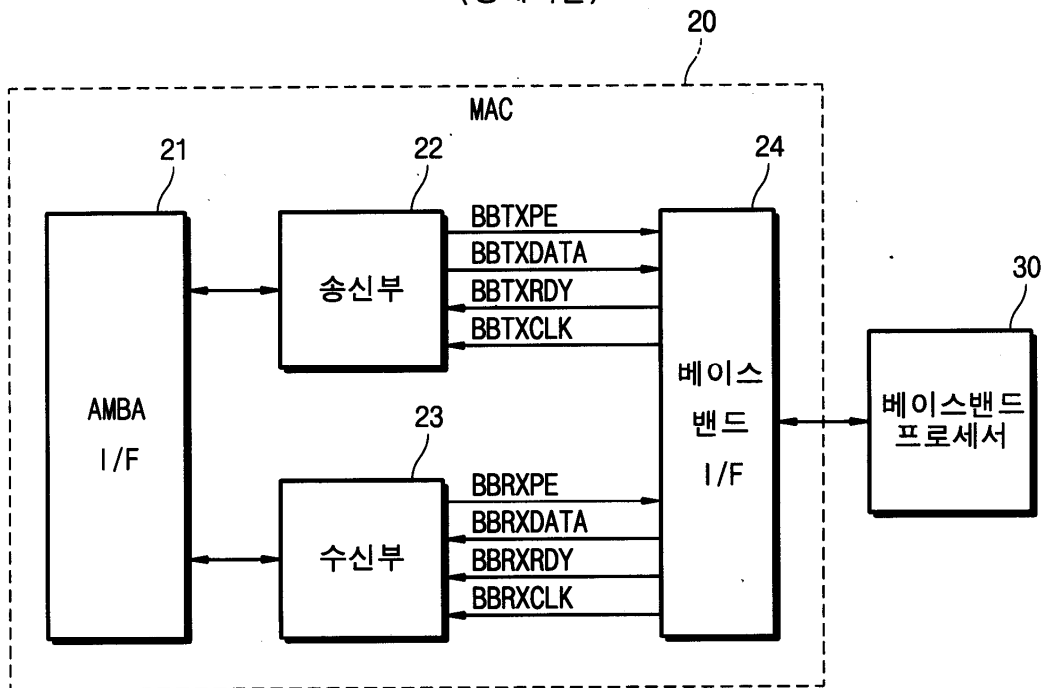
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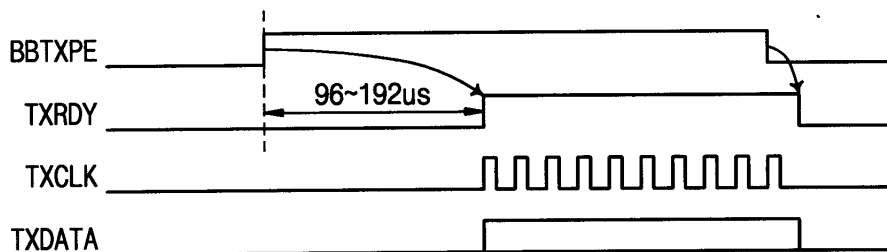
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(종래기술)



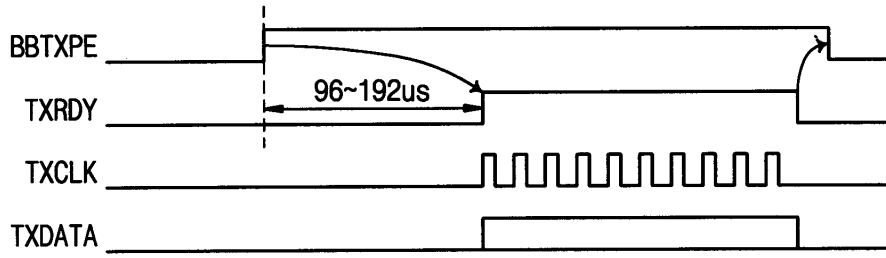
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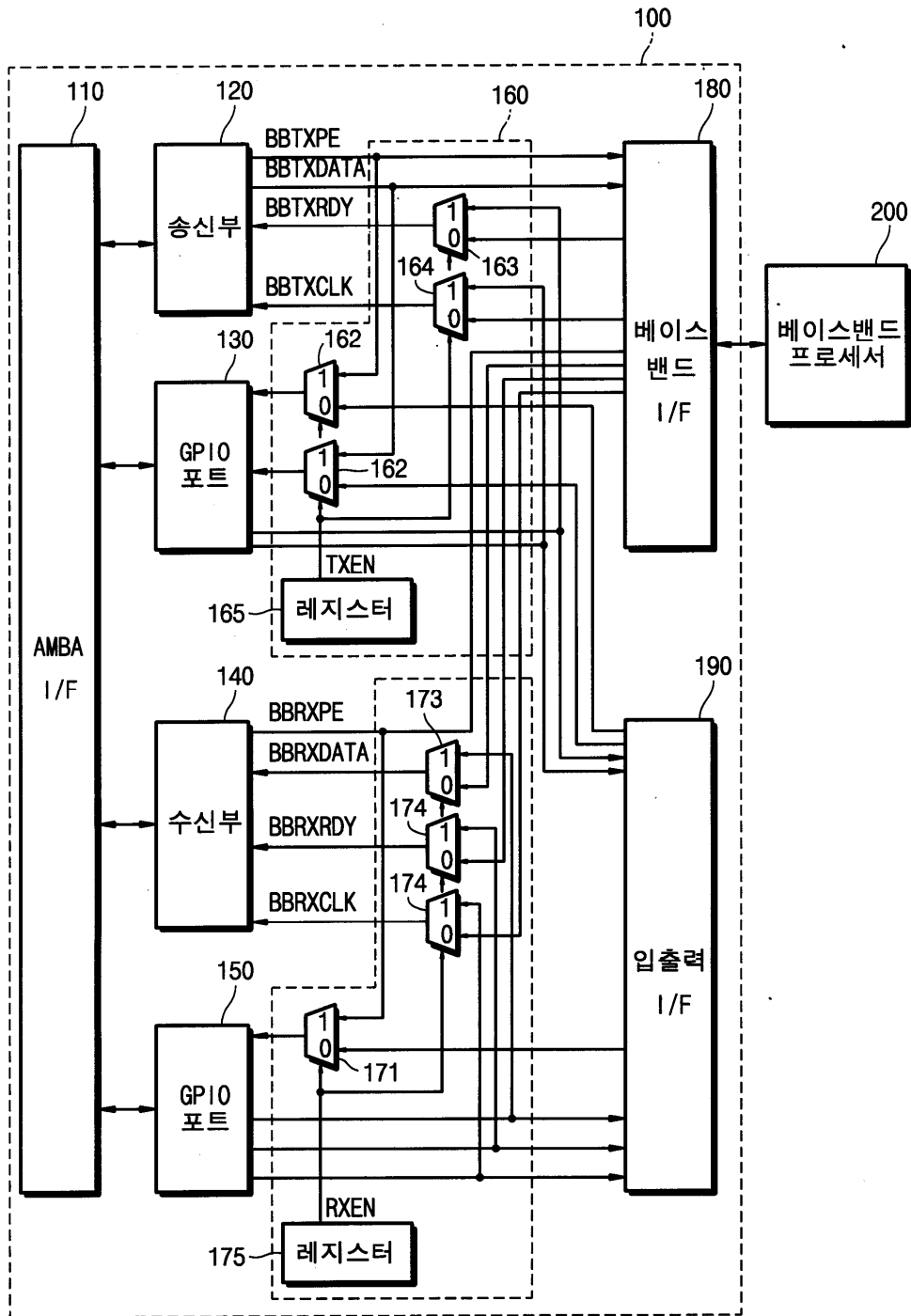
3a



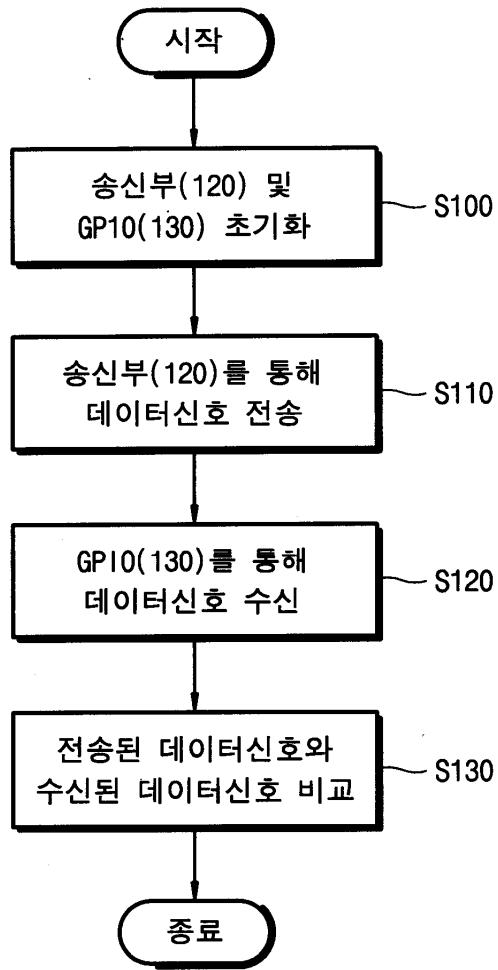
3b



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