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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 , 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

(MAC)

()

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

			2					
()								
4	MAC(100)	AMBA(ARM bus architecture)	(160),	MAC (110), (120), (170),	GPIO (180)	4	(130, 150),	(140), (190)
	MAC	GPIO	(130, 150)					
		(160)	(161-164)	(165)	(TXEN)		(165)	(165)
	'1'			'0'				
	(TXEN)가 '1'	(161, 162)	GPIO (130)	(163, 164)	GPIO (130)	(TXEN)가 '0'	GPIO (130)	(200)
		(163, 164)	(120)		(180)			
				(163, 164)	(120)			
		(170)	(171-174)	(175)	(RXEN)		(175)	(175)
	'1'			'0'				
	(RXEN)가 '1'	(171-174)	(140)	(175)	(RXEN)			
			(150)	(BBRXPE)	(171)	GPIO (150)	(172-174)	(190)
				(RXEN)가 '0'	GPIO (150)			
				(180)	(172-174)	(140)	(200)	
6		MAC		AMBA	(110)			5
5	4	MAC(100)			(165)	AMBA	(110)	(TXEN)
1'								
	S100	AMBA	(110)	(120)	GPIO (130)			
	S110	AMBA	(110)	(120)			(165)	(BBTXDA)
TA)		(TXEN)가 '1'	(120)	(120)	GPIO (130)	(BBTXPE)		
		(161, 162)		GPIO (130)		GPIO (130)	(120)	
			S120	AMBA	(110)	GPIO (130)		
IO	(130)		S130	AMBA	(110)	(120)		GP
6	4	MAC(100)			(175)	AMBA	(110)	(RXEN)
1'								
	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 -

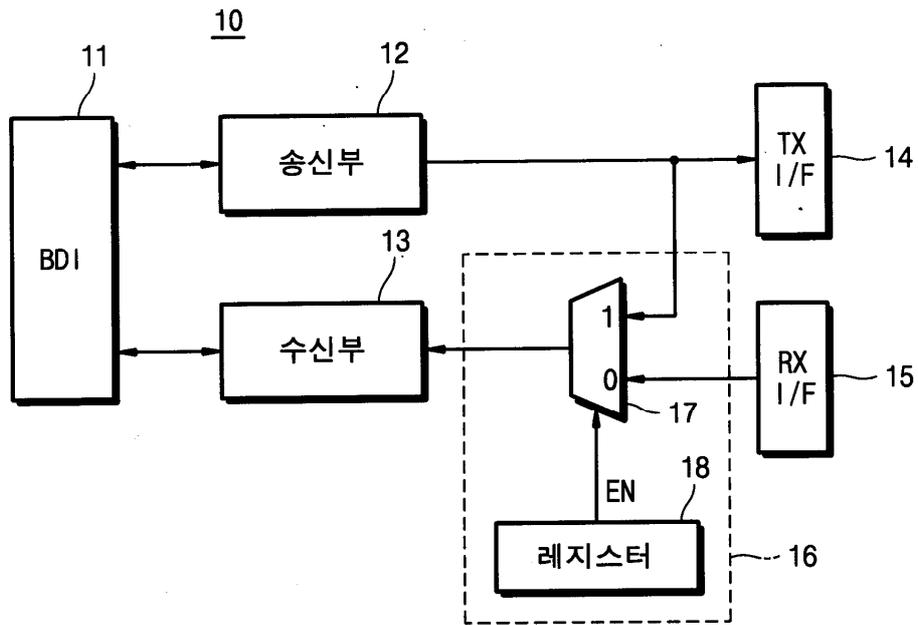
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1 ,
 1 - ,

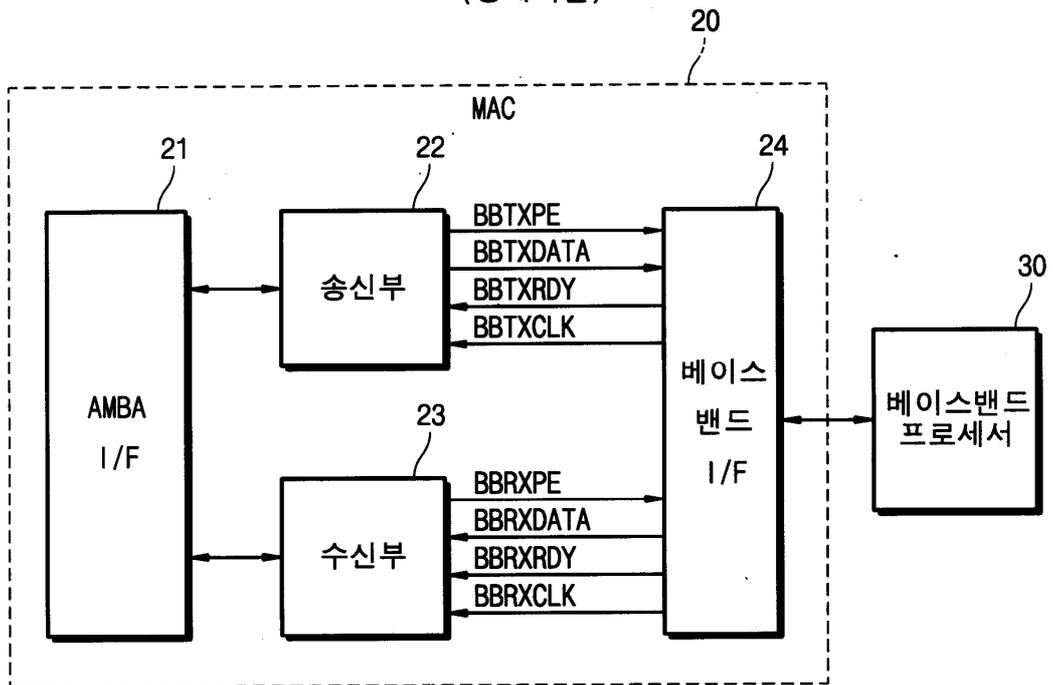
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1 ,
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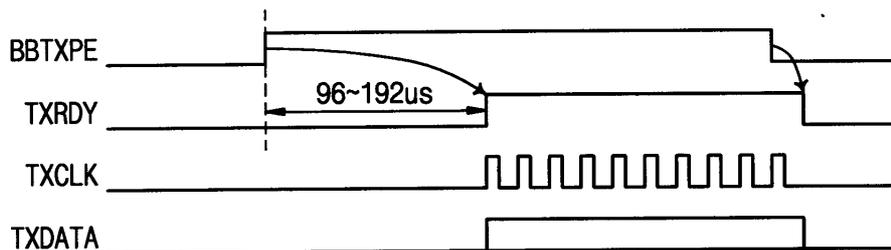
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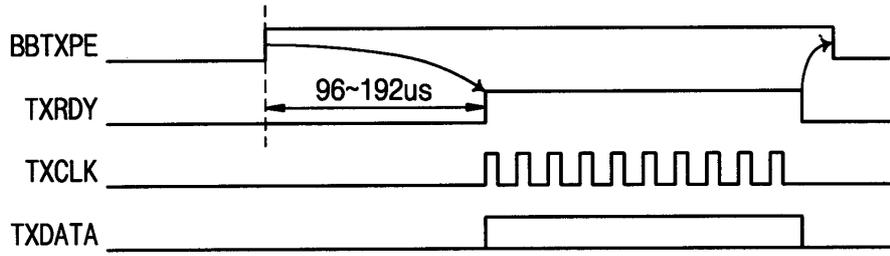
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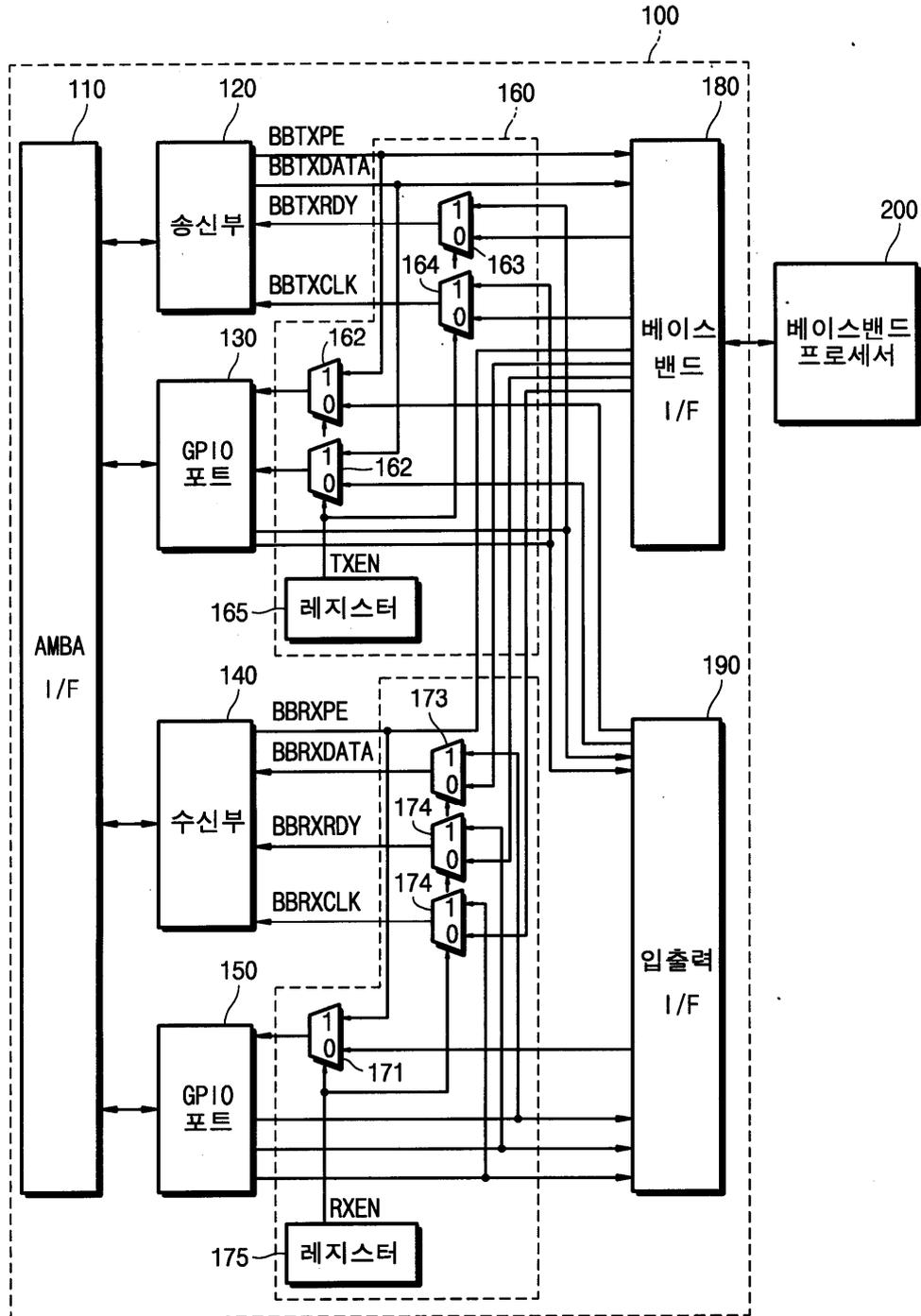
3a



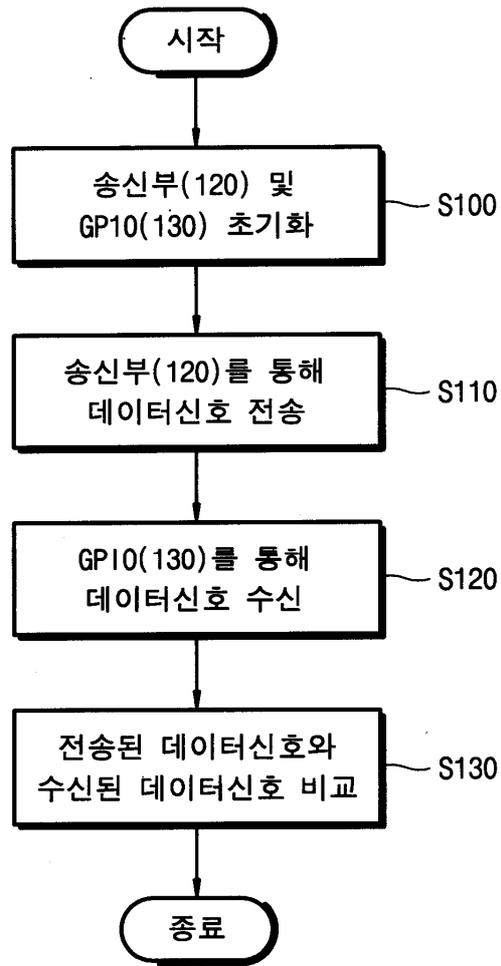
3b



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