

(19) (KR)
(12) (A)

(51) 。 Int. Cl. ⁷ H04B 1/69		(11) (43)	2003-0084957 2003 11 01	
(21)	10-2003-7011469			
(22)	2003 09 01 2003 09 01			
(86)	PCT/IB2002/00605	(87)	WO 2002/71652	
(86)	2002 02 28	(87)	2002 09 12	
(30)	09/797,273 10/013,562	2001 03 01 2001 12 11	(US) (US)	
(71)	4 2 9		- 2351	
(72)	2 3 6		10-6	
	2 5 9		44	
	2 3 5		18	
	1 7 2		71	
	2 2		479	
(74)				
	:			
(54)				

ACDMA , SCDMA ACDMA ACDMA
가 가가

() / ,
(CDMA) .

가 , 가
(CDMA; code division multiple access, 'CDMA') (O
FDM; orthogonal frequency division multiplexing)
, 가 .

가 , (PDA; personal digital assistant, 'PDA'), , (cate
gory), (appliance), (mobile), (nomadic) (stationary) 가 ,
PDA .

가 .

가 .

가 .

가 , ()
가 , 가 (load) 가 ,

3GPP(Third Generation Partnership Project, '3GPP')
()
, 3GPP CDMA 가 ,
(SCDMA; synchronous code division multiple access, 'SCDMA')
(ACDMA: asynchronous code division multiple access, 'ACDMA')
, SCDMA ACDMA , 3GPP SC
DMA ACDMA , 3GPP CDMA2000 .

SCDMA ,
, ACDMA ,
gonality) , , 가 , (ortho
gonality)

SCDMA , ACDMA (BER; bit error rate)
(carrier to interference ratio) 3 dB 가 AC
(gain) DMA SCDMA 가 ,
가 , Walsh , SCDMA
ACDMA
가 ,

가 가 .

CDMA (integral feature)
- - (make-before-break) (,

SCDMA
DMA
가
SCDMA
(pseudo-noise)
가
[1 (chip) 8 1 4 1]
가,
(fading)
(, 5 MHz)
, 3GPP
가
가
[, ACDMA SCDMA(SCDMA)
SCDMA
SCDMA
가
가 SCDMA ACDMA
가,
ACDMA SCDMA()
() SCDMA
가
가
SCDMA ACDMA
ACDMA , SCDMA
CDMA
09/797,273
가 ACDMA SCDMA
(FDM)
가 (guard band)
SCDMA ACDMA
ACDMA SCDMA 가 SCDMA
(, ' ')
).
가
, CDMA
가
(RRM; radio resource manager, 'RRM')
(scheduler) , RRM

(C/I)
(round robin)
/ , ,
, , 1 (millisecond)
, ,
, ,
, RRM ACDMA SCDMA
, RRM ACDMA /
(,) , SCDMA /
(非)- 가
,
, SCDMA ACDMA RRM , ACDMA
, SCDMA
가 CDMA SCDMA
SCDMA
가
ACDMA SCDMA
가
가
(central processing unit)
가
가
가
1 1 2 가
가
ACDMA SCDMA
()

(16) (12a), (12b), (12c) (12d) (10) (handhel
 d) (12) (14) (unit)'
 (12a) (12b) (12c) (12d) (12a) (12c)
 (12c) ()가 ()가 가
 (12a, 12c) (10) (20) (14) (14)
 (18) (20) (18) (14) / (14)
 (20) (18) (20) 가 / (18)
 (12) (14) 1 가 (12)
 (14) (14)
 (16) 5 MHz (12) / (14) 가
 2 (22) A(24a), B(24b) C(24c)
 2 (22) A C(24a, 24b, 24c)가 1.25 MHz 5 MHz
 (22) A C(24a, 24b, 24c)가 1.25 MHz 5 MHz
 (ACDMA SCDMA A(24a) ACDMA B(24b) SCDMA
 (16) (HDP: Highspeed Data Protocol) 가
 (DSL; Digital Subscriber Line) (16)
 D (fo
 oter))
 3 (12) 3 (12
) (26) (28) (26) (26) (28)
 (28) (30) (32)
 (16) (14) CDMA (, ACDMA SCDMA) (28)
 (32) (14) (30)
 (30) , ()
 (30) (12) -
 (12)가

(14)

(12) , SCDMA ACDMA (14)

) , ACDMA SCDMA

4 (14) 4 (14)

(34) (36) (34) (36)

(38) (14) (12) (36)

(12) (34)

(40)

(14) (20) (14) (18)

/ (42)

(18) (18)

(34) (12) ACDMA SCDMA CDMA

(14) (12)

(12)

(38)

(12) , (18) , (12) (in-progress)

(12) (14)

(12) (14)

(12) (14)

(14)

12) ACDMA SCDMA , SCDMA (12) 가 가 가

(10) 5 , (12) (14)

(12) (S100), (14)

가 (14)

(12)

SCDMA ACDMA

(14) (12) (12)

(12) SCDMA

(12) (12) (14) GPS (global positioning receiver)

(12) (14)

(12) SCDMA ACDMA (S102).

(14) (12)

(S104), (12) (14) ACDMA

(S106). ACDMA ACDMA

(12)[(12c)] (14)

(S108). (12)

(12) (S100) (12) / (12)가

(12d) (12d) (12D) 가

(S108), 가

(S110). SCDMA 가 가 가

(14) (14) (12)가

(S104) (S112). (S108-S112)

(S114)

(S102) (S110) 6 가 가

(S116), SCDMA (S118), SCDMA (S120). Walsh (12)

b) (S122). 가 가 , ACDMA 가

(S116) (S124) 가

(S118) SCDMA 가 ACDMA

(S124), (12a) (12c)] ACDMA (S

122). 가

가

SCDMA (12) 1 (primary base station)(14) (cover)'

(14) SCDMA

(14)(A) (12) SCDMA 가 (OVSF; ortho

gonal variable spreading factor) S1 가 (12)가 S2 (14)(A B)

(12) A SCDMA (12) B

, SCDMA (12)

(

SCDMA, SC

DMA 1)가 B SCDMA, ,

(12) ACDMA (migration) , 가 (

非) 1 SCDMA (source of interference) (in-cell) (

가 ,

ACDMA) , SCDMA SCDMA 가

2 (secondary base station)(14) (12) 가 2 (14) [(12) (pilot)

가 가], (12)가 SCDMA

(subcarrier) 가

SCDMA SCDMA

2 SCDMA

1.25 MHz 5 MHz

SCDMA ACDMA (office park) SCDMA ACDMA ACDMA

가 , SCDMA /

ACDMA SCDMA , ACDMA (intr

a-cell) / , SCDMA ACDMA (gracefully) ,

가 가 , SCDMA ACDMA 가 SCDMA 가

SCDMA , 가 ACDMA

(FDM) ACDMA ACDMA

RAKE (resolution)

가 SCDMA ACDMA , FDM 가 ,

가 FDM , FDM 가

가 7 7 1 , RRM(44)

(RRM)(44)가 가 . RRM(44) (14) (14)

RRM(44) (14) RRM(44) RRM(44) (14)
가 , RRM(44) (14)
RRM(44) RRM(44) (12) (14)
(ROM) RRM(14) (RAM)
(fixed disc)
(central processing unit) RRM(44)
RRM(44) () RRM(44)
가 / 가
(44) 가 가
RRM(44) RRM(44) RRM(44)
(14) RRM (14) RRM(44)
RRM(44) RRM(44) (load)
9 dB SCDMA CDMA 3 dB
가
SCDMA SCDMA 가
CDMA 가
RRM(44) (14) (12)
RRM(44) (12) (12)
SCDMA (12)
(quasi-orthogonality) SCDMA 가
(46) (46) S1, S2 8 8 7 (14)
, C1, C2
(48) (S2) (C1) (50)
(S2) (C2) (52) (S1) (C2)
(54) (S1) (C1)
(46) 8
(48, 50) (52, 54) (46) 52
54 (48, 50) (52, 54) (46)
가 (12) RRM(44) (12)가
(12)가 (time duration)
(12) 가
(46) CDMA 가

, (46)
 X, Y Z RRM(44) (46) (56) CDMA (12) (12) (14)
 가 10 10 , RRM(44)
 X Y A, C, E G Y B, D, F H
 8 Y (48) (12) (50) 가 (12) X
 가 , ACDMA 가
 (12)
 , RRM(44) 가 10 (58)
 10 , RRM(44) X C, G Y B, F가
 11 (12)
 (低)
 11 X RRM(44) 11 , A, D, E H
 8 (48, 50) (52, 54) 가 11
 Y B, C, F G
 (46)
 X Y
 12 가 , 가 ACDMA () 가
 32 (SCDMA) 가 SCDMA () 44 가 ()
 CDMA ACDMA 50% SCDMA 38 % 가). 10 50 % 가 A
 SCDMA 가 (37 , 44
 가 19 % 가).
 / , ACDMA SCDMA RRM
 FDM (46) 가 SCDMA (SCDMA)
 (10 dB 8 가) 가
 가 RRM(44) RRM(44) SCDMA ACDMA
 (,) (12)

가 ACDMA SCDMA ,
(scale) 가 ,

- (57)
1. ,
,
 2. 1 ,
,
 3. 1 ,
,
 4. 1 ,
,
 5. 4 ,
,
 6. 5 ,
,
 7. 6 1 1 2
2 .
 8. 1 ,
,
 9. ,
,

- 9 10. ,
(operative communication)
- 9 11. ,
- 9 12. ,
- 9 13. ,
- 13 14. , 가
- 14 15. , 가
- 15 16. , 1 2
- 9 17. ,
18. ,

19.

1 1 2 2

20.

19 ,

21.

1 ,

1

22.

21 ,

2 ,

2

23.

22 1 2 , 1 2 ,

24.

23 , 2 가 가

25.

24 , 2 가

26.

23 , ,

2 가 ,
가 .

27.
21 , ,

1 가 ,
가 .

28.
27 , 가 .

29.
26 , 가 .

30.
21 , 가 .

31.
21 , .

32.
31 , 1 ,
2 .

33.
21 , .

34.
21 , .

35.
23 , .

36.
 ,
1 1 ;

,
 ,
1 ,

1

.

37.

36 , 1

38.

37 , 1 가 가

39.

38 , 1 가

40.

37 , 1
가

41.

36 , 가 ,

1 ,

1

42.

41 , 1

43.

42 , 1 가
가

44.

43 , 1 가

45.

36 , 2 2 ,

46.

45 , 2 ,
가

47.

45 , 2 ,
가

48.

49.

48

50.

49

51.

48

52.

51

53.

52

54.

55.

54

56.

55

57.

56

58.

53

1

1

58 59. 1

59 60. 1 가

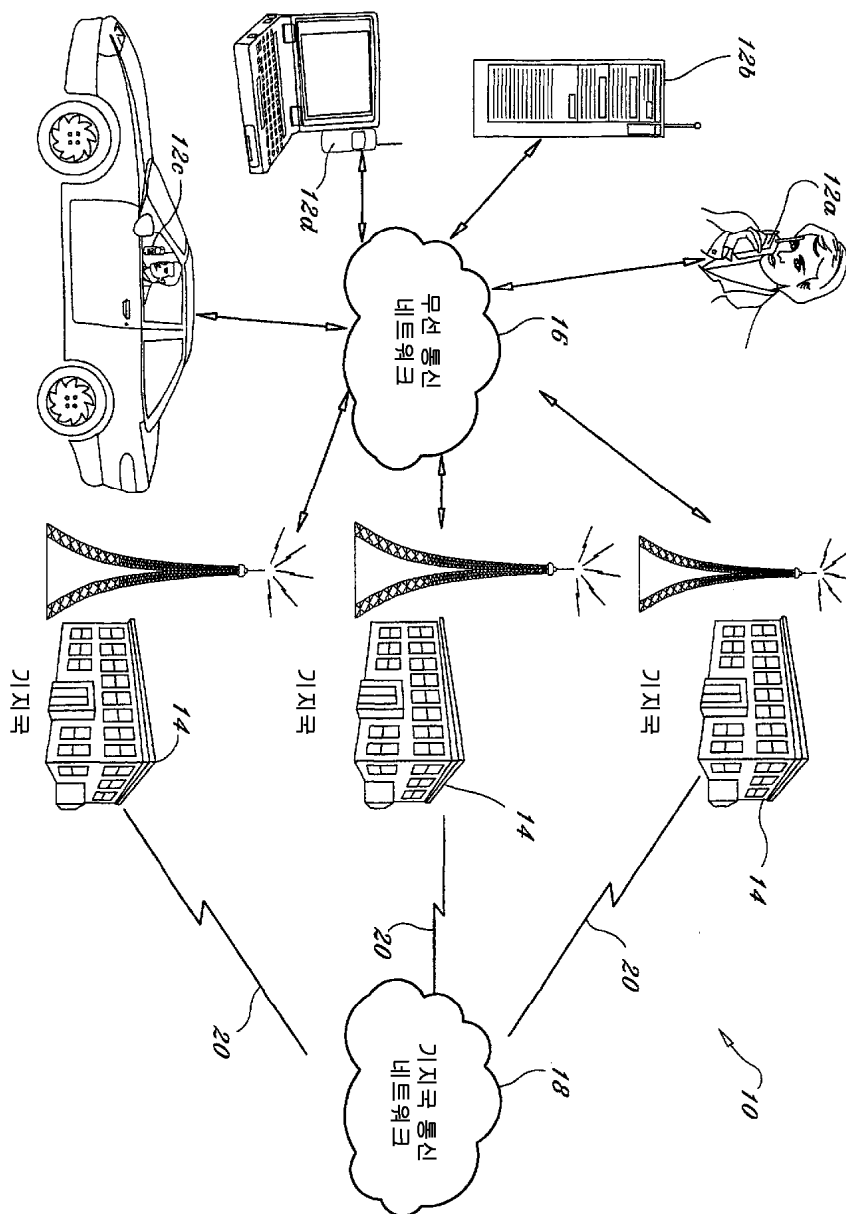
60 61. 1 가

54 62. 2 2

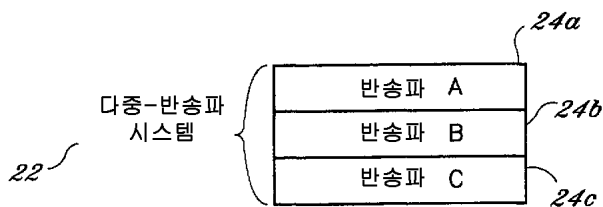
62 63. 2 , 가

62 64. 2 , 가

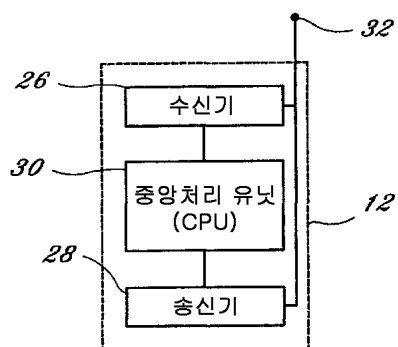
1



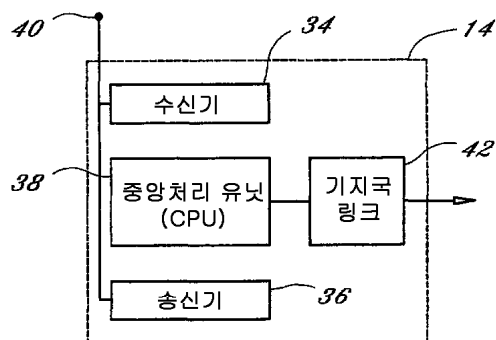
2



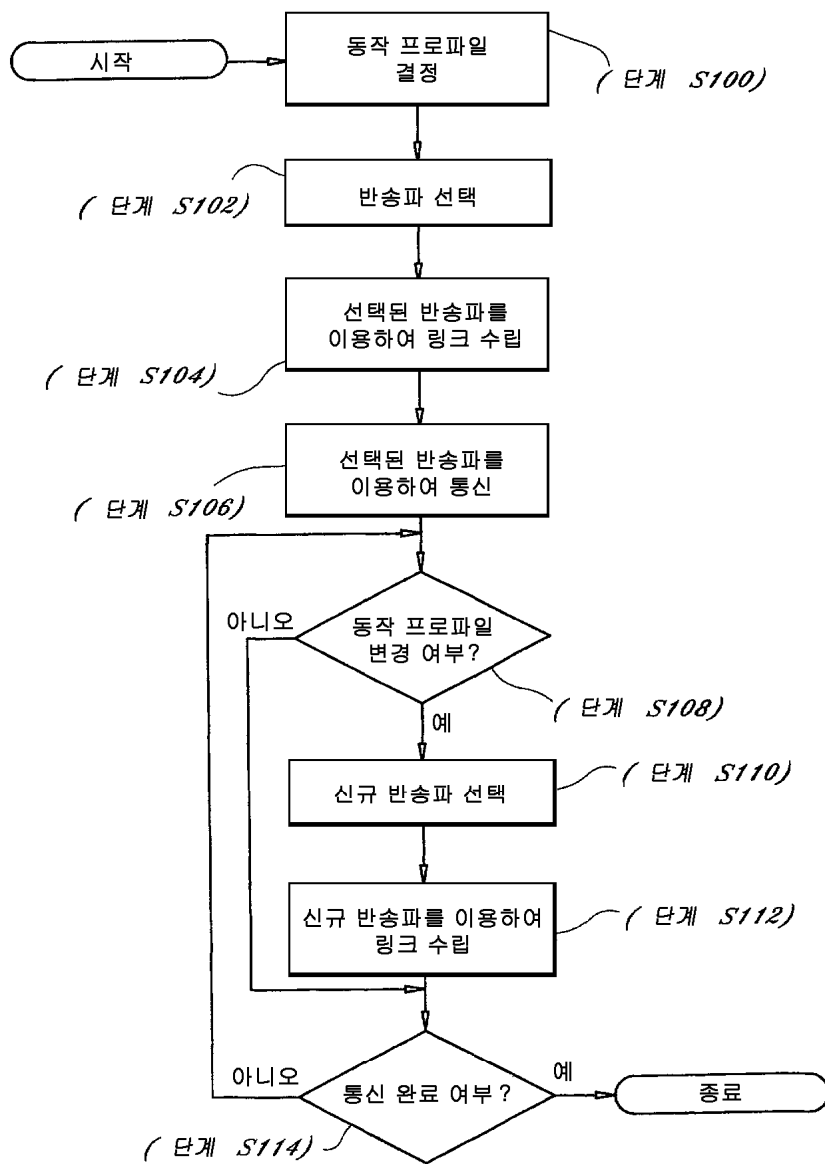
3



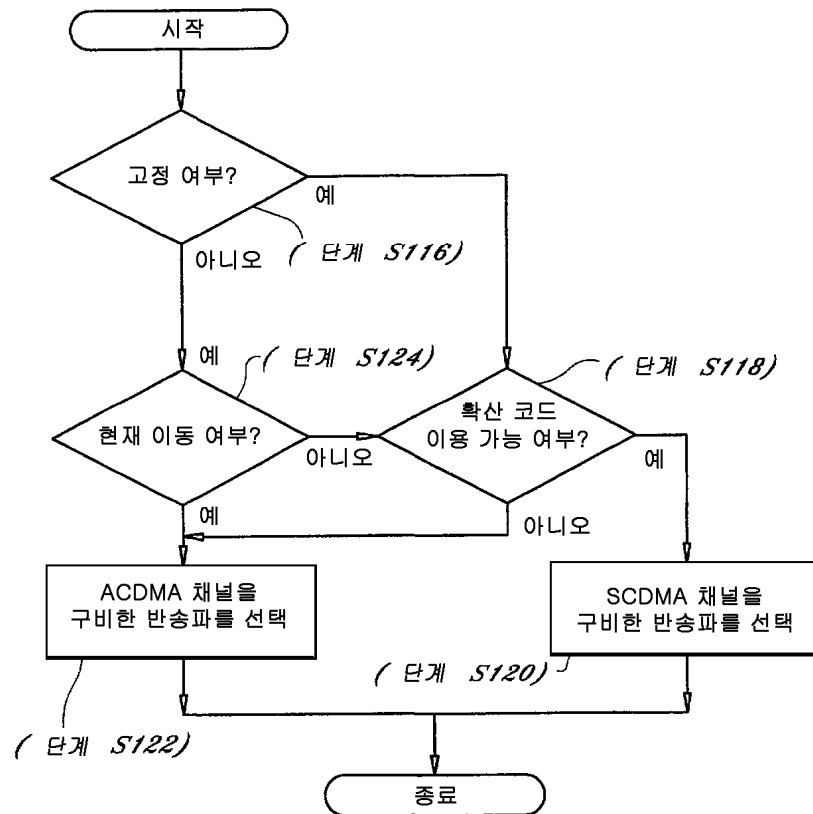
4

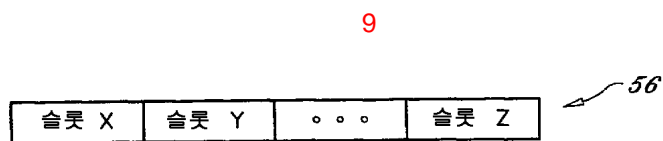
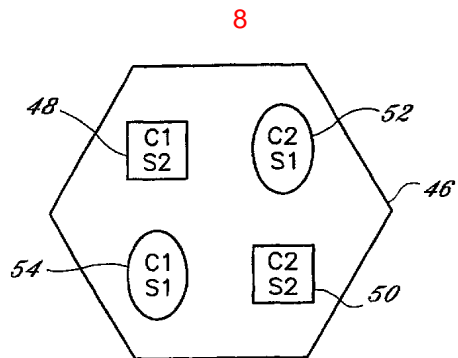
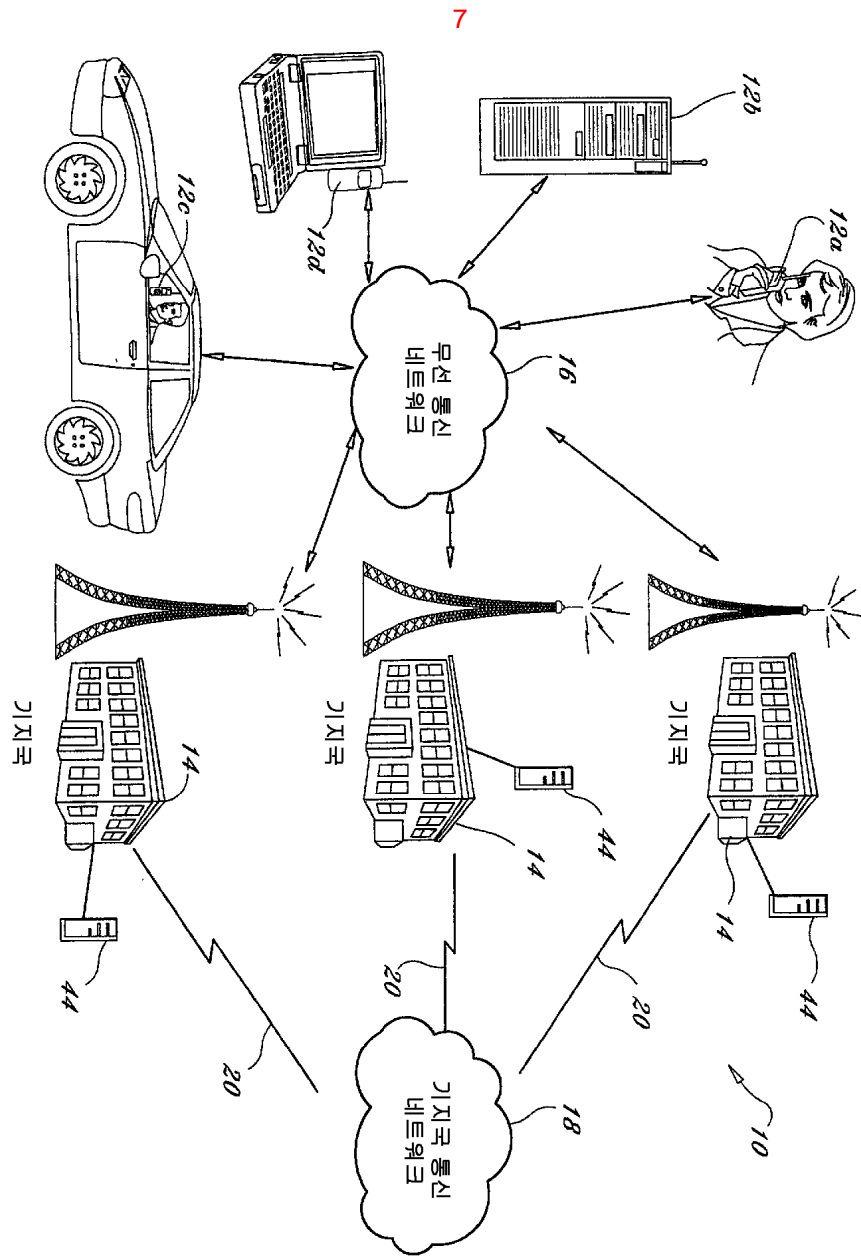


5

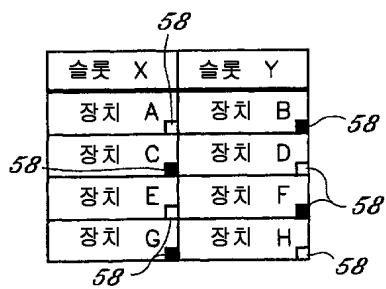


6

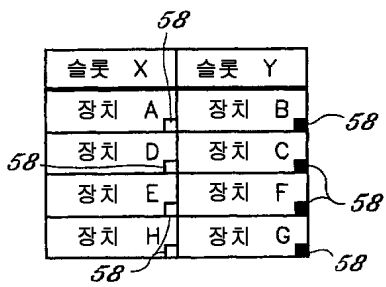




10



11



12

