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(71)

524-1303

2414 302

150-1

(72)

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150-1

(74)

:

(54)

CDMA

(CU)

(RT)

RT 가

RT 가

1 CDMA .

2 CU가 RT .

3 .

4

5 .

6 (FER: Frame Error Rate) (Rayleigh fading)

, (wireless telemetry system) , CDMA (Remote Terminal, 'RT') (time diversity) (frame combining)

(CDMA : Code Division Multiple Access) (multi-path combining)

가 , 가

가

1 CDMA , (1)가 m CDMA (2) , m ,

(3) , (4) . 1 , CDMA 가

CDMA(Code Division Multiple Access)
(rake receiver structure)

rol Unit, 'CU') , (Cont
e Terminal, 'RT') (Remot

2 CU가 RT

2 , CU PN (5) (6, 7)
(6, 7) 가 (5) 1/N (orthogonal code) (6, 7) N
(5) i(6) 가 (5) 1/m , ,
m j(7) 가 1/k , ,
k

RT PN 가 ,
. RT ,

3 ,

3 (8)가 CDMA (9)
CDMA (10) CDMA (9)
(11)

4 ,

(multi-path fading) 가 ,
CDMA m CDMA
가 , m CDMA m CDMA
DMA (13) , m CDMA (12) m C
가 (14) (15) (15)
(16)

5 N , N
(17) 가 CDMA N C_{1,j}
N 가 (17)

N , N C_{2,j}
가

, m , CDMA m N
, m Cm,j 가 , C_{m,j} 1 m m

m 가 , , .

6 (FER: Frame Error Rate) (Rayleigh fading)

ing) , .

1 (18) , 10dB 가 , 6

0% , .

10dB 가 10% . 2 (19) ,

가 1% . 4 (20) , 7dB

가 ,

CDMA

가

가 ,

RT 가 . RT 가 ,

(57)

1.

(CU: Control Unit)가 ,

(RT: Remote Terminal)

2.

1 ,

RT CDMA ,

3.

1 ,

RT CDMA , 가

CDMA ,

4.

2 3 ,

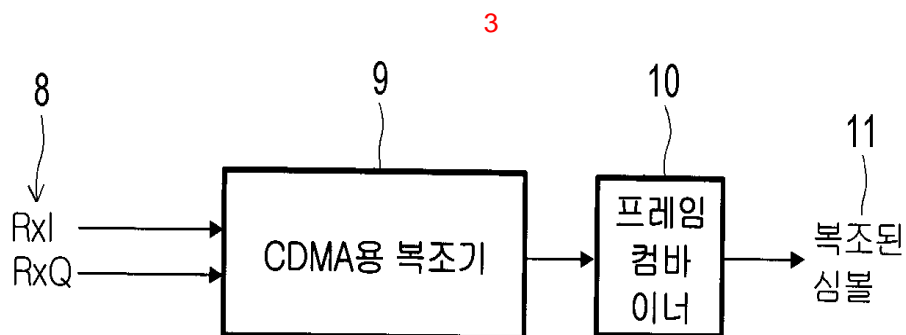
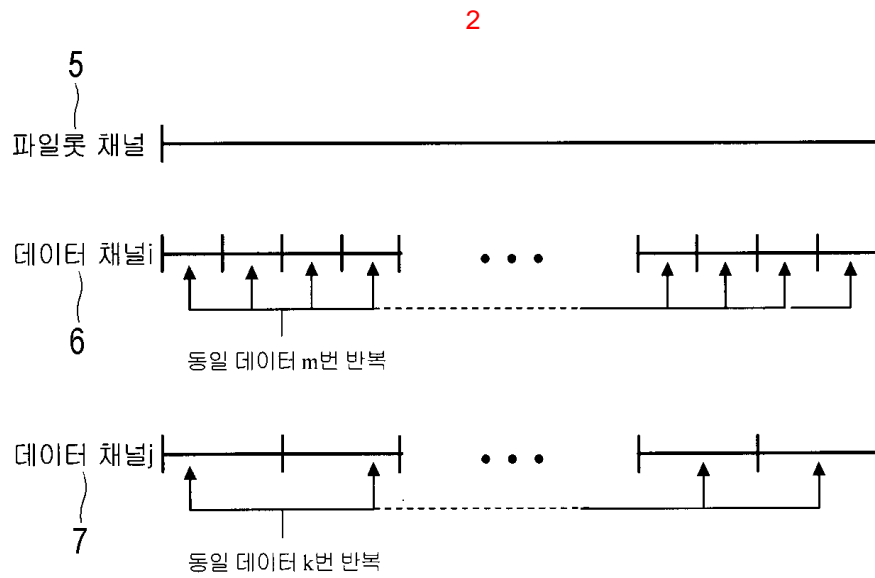
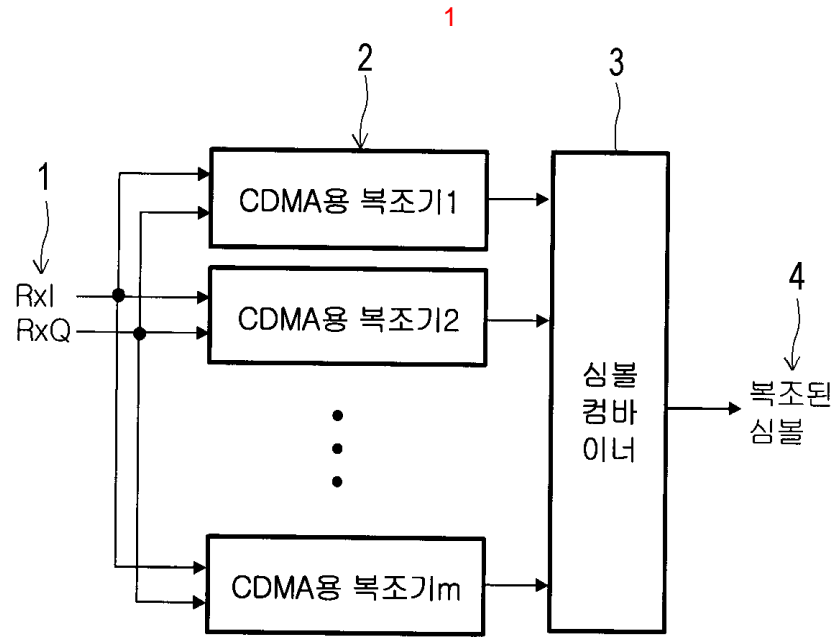
(accumulation) 가 ,

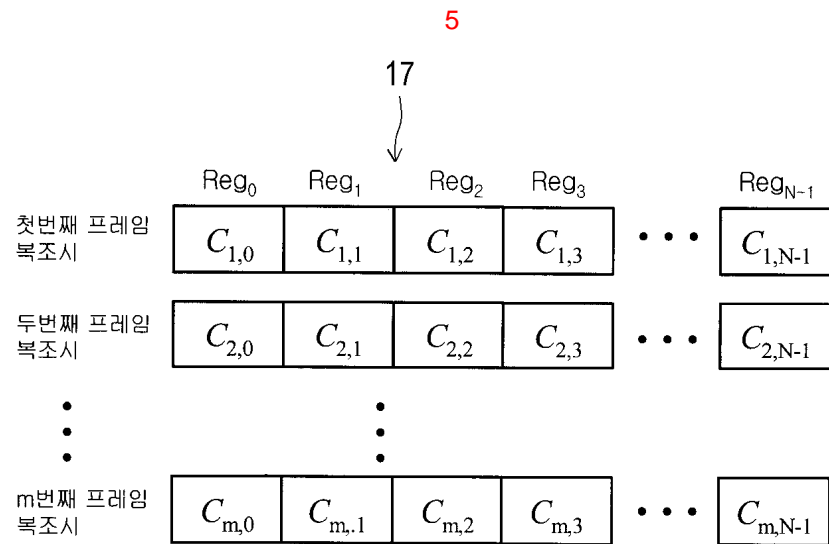
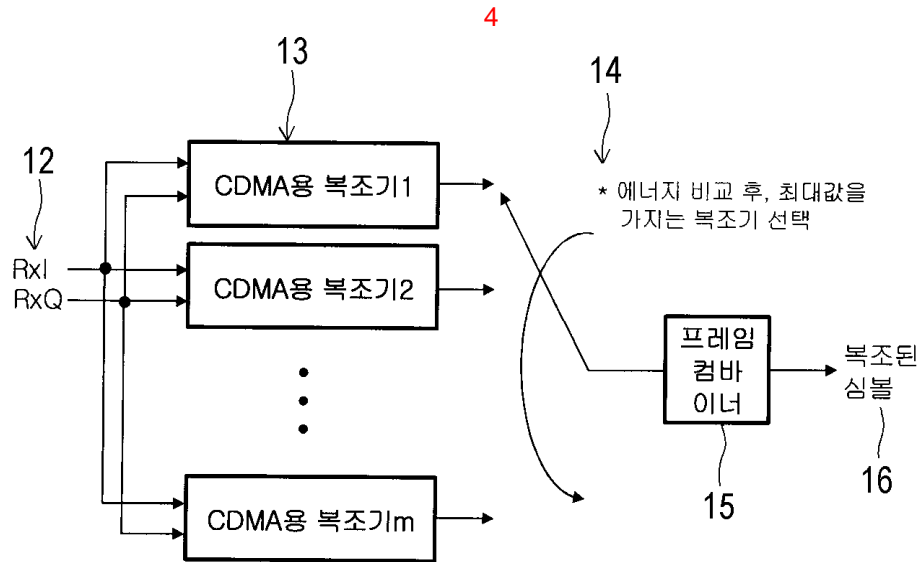
5. 1 3 ,
CU , N , 1/N
가 .

6. 5 ,
CU

7. 1 2 ,
RT가 CU PN 1 ,
RT 2 ,
RT , 3 ,
RT , 4 ,
2 4 5

8. 1 3 ,
RT m CDMA 가 CU PN
1 ,
RT m CDMA 가 2 ,
RT m CDMA 3 ,
CDMA ,
4 ,
RT 3 4 ,
5 ,
2 5 6





$$C_{i,j} = \sum_{k=1}^i S_{k,j}$$

$S_{k,j}$ = k번째 프레임의 j번째 심볼

6

