

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

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(71) , -2074 , 3

(72) ,  
, -4514, 가 6  
,  
, -2000, 36  
,  
, -2000, 35  
, -  
, -2000, - 12

(74)  
:

(54) R F

(3) RF (IF) .  
, (2) , 1 (12) 2  
(20) 25) 1 2 , 1  
1 1 (14)  
- 2 2 1 2  
, 2 (17, 18, 19) 2  
, RF/IF 1 2 , ,  
.

GPS, RF .

RF

RF/IF

(filtering) 1

1, 1 2 1

1, 1 2 1

1 2 1 (mixer) (unit) 1

2 2 2 2

2 2 2

(shaping)

GPS GPS

4 가

GPS, GLONASS

GALILEO, CDMA(

RF, GPS

가 RF

GPS

, RF

가 1

1 RF (2), GPS 가 RF 1, 57542

Ghz

(101) 1 (102) 1 (102) (109) (101) 1

1 (102) 1 (101) SAW

1, 3961 Ghz . 1, 179.3 Mhz 1, 2168 Ghz(1, 36961 Ghz - 0.1793 Ghz)

(102) (109) 2 (103) (103)  
 (104) 2 (104) 1 (110) 2 2  
 2 (103) SAW 2 (104) 2

1 8 , 174.5Mhz 2  
 1 (110) , 2 1 4.8MHz  
 2 1 (102) 169.7 MHz(174.5 MHz - 4.8 MHz)

2 (104) 3 (105) (105)  
 CIK 3 (106) (114) (115)

363 MHz 17.452 MHz 4,  
 3 400KHz 가 (115) 4 3

3 (106) 4 (107)  
 (108) CLK (sample and hold) (108)

1 2 (phase lock loop frequency synth  
 esiser)(100) (109), (110, 111), (109)  
 (112) (112)  
 (113) (109)

1 3 가,  
 RF RF

가 SAW , 2  
 5mm\*5mm\*1.3MM SAW  
 (gain)

2 EP0 523 938 B1 3  
 2

1 (30) 1 (14) 1 (28) 1 200  
 (12) (order) 1

MHz (14) 2 (16) 2 (18)  
 1 (14) 2 (18) 1 26  
 MHz 2 (22) 3 (20)

[illegible]

3

4a 4b 2 (gain)

5 2

가, 가 RE RF GPS

(1)가 RF (1) (search)  
(2) GPS GPS

2 (track) 가 가  
, 4 가 가

RF (2) (3) 2 RF/IF  
(3) RF(4') IF(4') 2  
(5) (5) 3 (4', 4')

(3) (6) IF (6')  
IF (6') 가 GPS (pseudo-random) (6') 가, (lock)  
(8) IF (7) (8) GPS 4 GPS

IF (complex) 400KHz 1/4  
Q IF I IF 2 2

GPS

GPS

3 (3) (2) (3) GPS  
1, 57542 GHz

(3) LNA(11) SAW( ) (12)가  
(12) RF/IF IF(I) IF(Q)  
(10)

, RF/IF 가, (10) 0.25 CMOS

F/IF (3) RF/IF (10) R  
(13) 가 가  
(13) 가 (14) 1  
(26, 28)

(14) VCO(20) (14) , ,

(14) 1 1, 57542 GHz

1, 5508 GHz 64 24.6MHz (14)

50 100

1 (14) 1 (12) 1 (14) (12) , SAW ,

가

1 , 1, 5508 GHz , 1 2

4.6 MHz (GHz) 가 1, 5262 GHz(1, 5508GHz - 0.0246

1 (14) 2 (15) 2 GPS (24.6 MHz □

1MHz) 1 (11) , RF/IF

24.6 MHz (harmonic) , 49MHz 가

2 IFA-gmC 24.6 MHz 1

5 가 4

4a 4b 1 179MHz SAW

4.8MHz 169.7 MHz

179 MHz 4dB

2 MHz , 1 1, 526

가 , 가

5 24.6 MHz RF/IF 2

5 24.6MHz 가

49 MHz

3 , 2 (15) 2 (16) (16)

(16a, 16b) (16b) , 2 (16a) 1/4 Q 2 (15) I 2 (15)

2 1/4 (20) 1 (21) (23) (23)

(21) 32 1, 5508 GHz , 2 (23) 2 1/4 24.2 MHz

(16a , 16b) 1 (16a, 16b) 2 400kHz 가

(16a, 16b) (18a, 18b), / (19a, 19b) (1.5MHz)(17

a, 17b),

IF(I) IF(Q) (3)

(18a, 18b) (correl

ator) RF/IF

(19a, 19b) (26) CLK (29) (28) (26)

2 8.08 MHz 16.154 MHz 4.04MHz

가 (27) 2 CLK

1 2 (20), (21, 22), (21, 22)

(24), (20) (25) (24) (20)

RF/IF

2 2 RF 30mW 20mW 가 RF/IF

GPS

(57)

1.

- 1 (2) 1 (12),

- 1 2 (20 29), 1 2

- 1 1 (14)

- 1 2 (15)

- 1 2 2 (16),

- 2 (17, 18, 19)

2

RF (1) (6) (IF)

(3)

2.

1 RF/IF 2 (10) 1 2 (3).

3.

1, 2, (3). 1

4. GPS 1, 1 50 100 (3). 64

5. 1, 1 2 n, n (3)., 50 100 64

6. 1, (26 29) 1 2 (3).

7. 1, (20 25) 2 1 (3).

8. 6 7, RF/IF (3). 1

9. 1, 2 2 2 1/4 1 (16a) 2 1/4 2 1 2 1 2 2 2 1/4 (3). 1

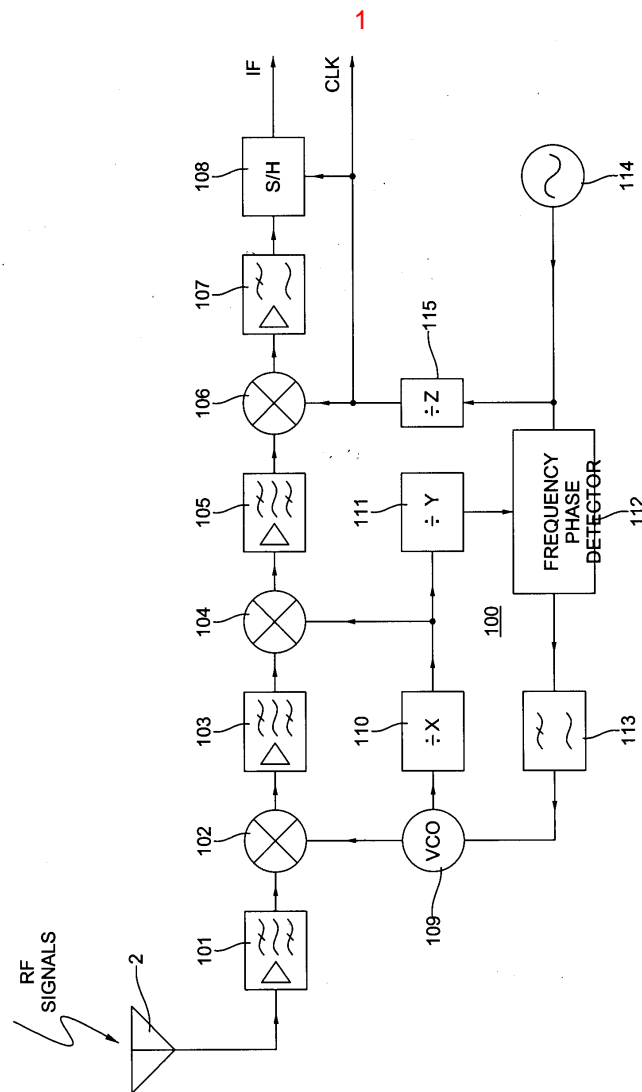
10. 9, 2 (CLK) (17a, 17b) (19a, 19b), 1/4 (3).

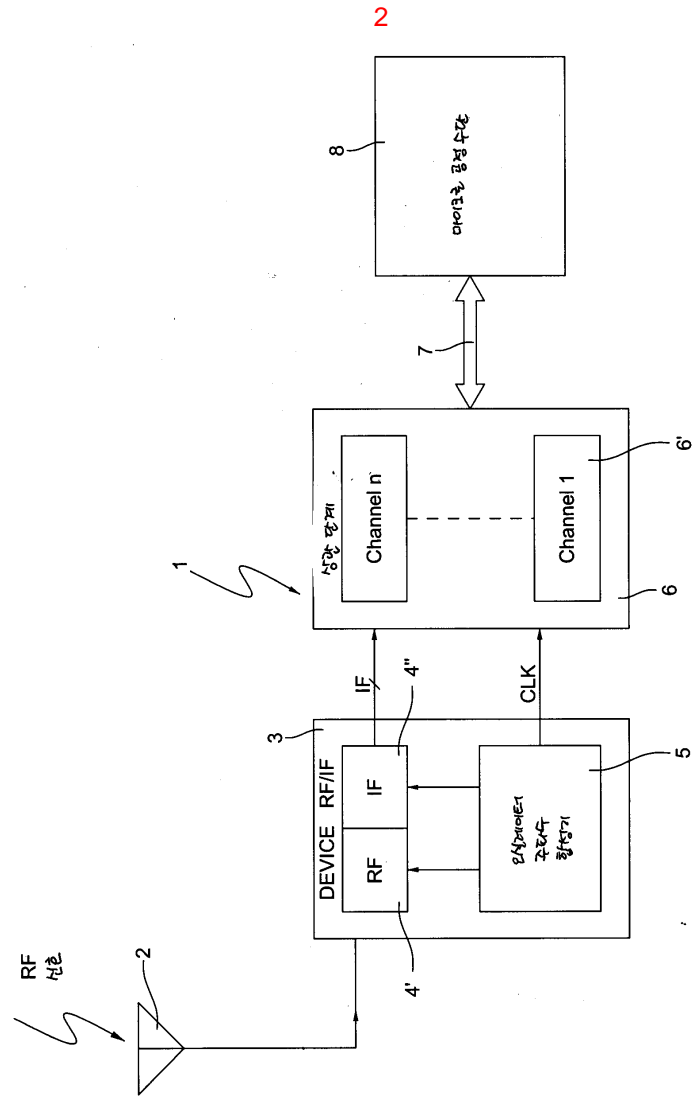
11. 6 7, 10 MHz 20 MHz (29) RF/IF (3).

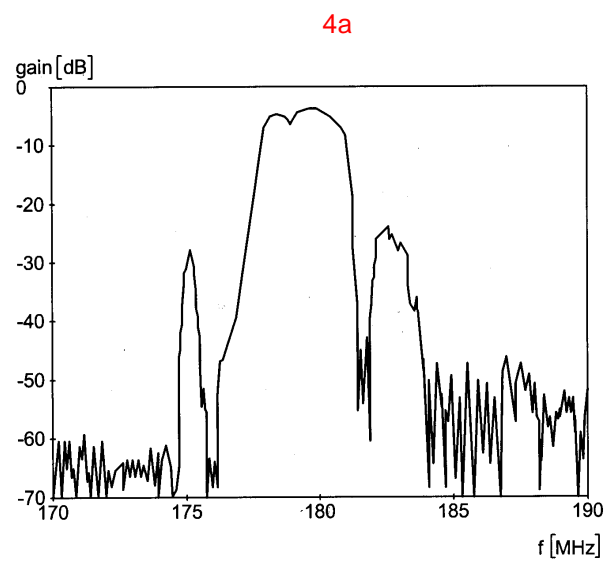
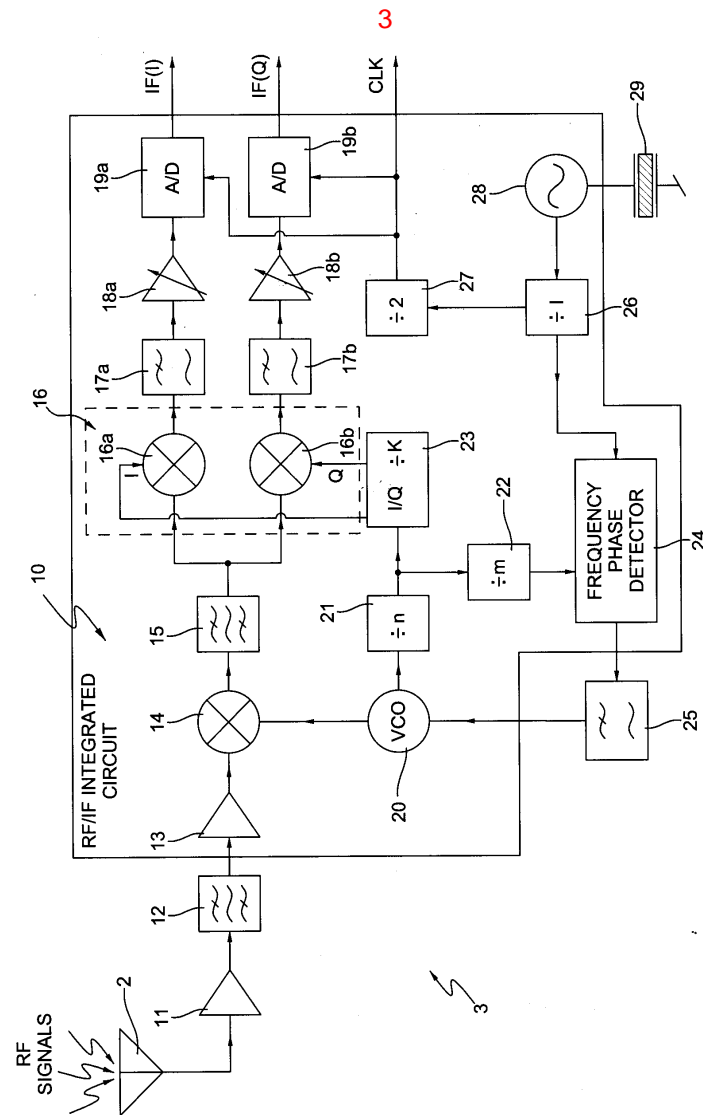
12. RF/IF 1, 1, 2, 2 (3) RF/IF.

13. 12 RF/IF, 0.25 CMOS (3) RF/IF.

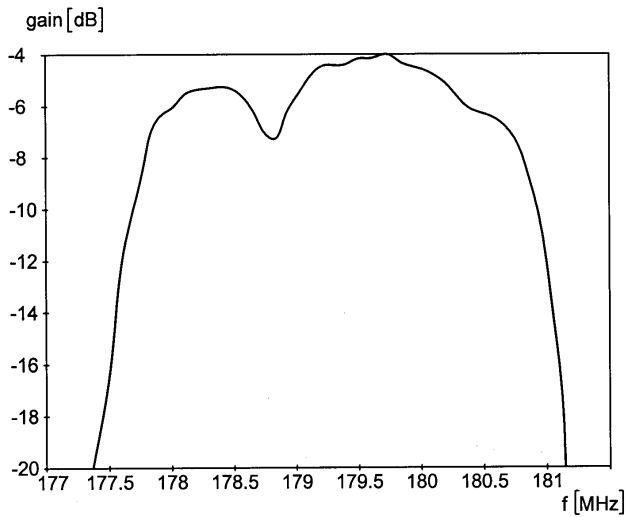








4b



5

