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(65)
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2002-0087734
2002 11 23

(73) 2 475-22

(72) 606-606

1 223-67

1 1633-17

10 457-372

(74)
:

(54)

(Frequency Conversion)

(FSK)
(multi-path fading)

(FSK)

2

1

(FSK)

2

(FSK)

3 2
4 2
5 2

1~4 : 1 4 5 :
10 : 20 : (sine)
30 : 1 40 :
50 : 60 :
70 : 80 :
90 : 100 :
101 : 102 :
103 : 2 110 :

annel Frequency Shift Keying; FSK) (multiple cha
(PLC;Power Line Communication) 50~60Hz
Hz MHz

TV, VCR, 가

(multi-path fading)

(FSK)

(multi-path fading)

FSK

FSK

4-ary

(FSK)

FSK

(sine)
(sine)

(20)

(sine)

(sine)

1

1

(moving a

verage)

(moving average)

(Sampling)
(sine)
(sine)

(Synchronization)

(FSK)

(sine)

가

가

(sine)

(sine)

(FSK)

(sine)

가

가

2

FSK

(sine)
(sine)
1

(20)

(sine)

(sine)

(moving average)

(moving average)

(Synchronization)

(Sampling)

4-ary

(FSK)

(sine)
(sine)

(FSK)

(sine)

가

가

(sine)

(sine)

(FSK)

(sine)

가

가

2

FSK

1 (FSK) 4 (1~4) 1 4

(1~4) / ()

2 (5) 4 (1~4) 4-ary (FSK) (FSK)

() / ()

(10) , (si

ne) (sine) (20) , (sine) 1 (30) ,

sine) (20) (30) (40) ,

1 (40) (50) , (50)

(50) , (60) , (60) (moving average)

(moving average) () ()

/ (70) , (50) (80) , (50)

(90) , (50)

(100) , (8

0) (90) (Sampling) (Synchronization) (110)

(100) , 4 2

3 2

5 2 (100) (50)

(101) , (101)

(102) , (50) 2 (103)

FSK

3 ,가 가 가 가

가 4 가 4

가 1 ,4

FSK , 0, f2 2ⁿ 1 가

가 0 1 f1 f2 가

4 1 4 (1~4) , 1

(1~4) 4-ary (FSK) (1~4)

(5) 1 4 (1~4)

/ () / ()

() ()

(10) (sine) (20) (sine) (110) FSK

(sine) (30) (40) (sine)

(50) (50) (40) (50) (60) (70) (moving average) (moving average) (70)

가 (70) / (60) (70)

3 가 10mV / 가 1V 가 (70)

가 100 (Time Domain) () ()

(70)

(10) (sine) (20) (sine) (110) FSK

(sine) (sine) 1 (30) (40)

1~F4 (50) (50) 4 F

(50) (40) (40)

가 (orthogonal) 가

0(zero) 가 < 1 > , 4- 4-ary FSK

10MHz, 11MHz, 12MHz, 13MHz (sine) (20) (sine) (20) 4MHz (sine)

6 MHz, 7MHz, 8MHz, 9MHz (40) 1 (30) 4MHz (40)

Synchronization) (50) 4MHz ()

[1]

	(sine)	(sine)	1
10MHz	6MHz		4M,16M
11MHz	7MHz		4M,18M
12MHz	8MHz		4M,20M
13MHz	9MHz		4M,22M

(sine) (20) 6MHz, 7MHz, 8MHz, 9MHz (sine) , 1 (30)

(10)

10MHz, 11MHz, 12MHz, 13MHz (sine) (20) 6MHz, 7MHz, 8MHz, 9MHz (sine)

4MHz, 16MHz, 4MHz, 18MHz, 4MHz, 20MHz, 4MHz, 22MHz (40)

1 (30) 4MHz, 16MHz, 4MHz, 18MHz, 4MHz, 20MHz, 4MHz, 22MHz 4MHz

4MHz, 4MHz, 4MHz, 4MHz (50) (40) 4MHz, 4MHz, 4MHz, 4MHz

4MHz (orthogo

nal) 가 0(zero) (80) (50) (90) (50)

(50) (50) (100) (101) (50)

5 (102) (101) (101)

(102) , 2 (103) (50)
(110) (80) (90)
(Synchronization) (100) (Sampling)
(110) (90)

3 (80) (50) (90) 가

cy Conversion) 가 가 , FSK (Frequen
(multi-path fading) 가

(57)

1.

(FSK)

2.

1

4-ary (FSK)

(FSK)

3.

(sine)

(sine)

(sine)

(20)

sine)

1

1

(moving average)

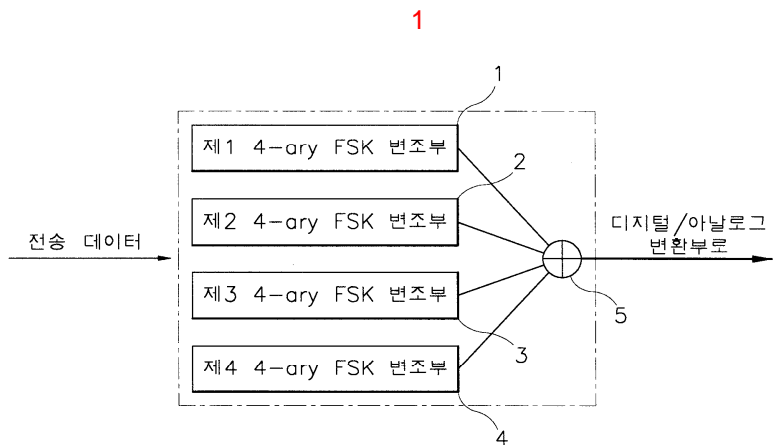
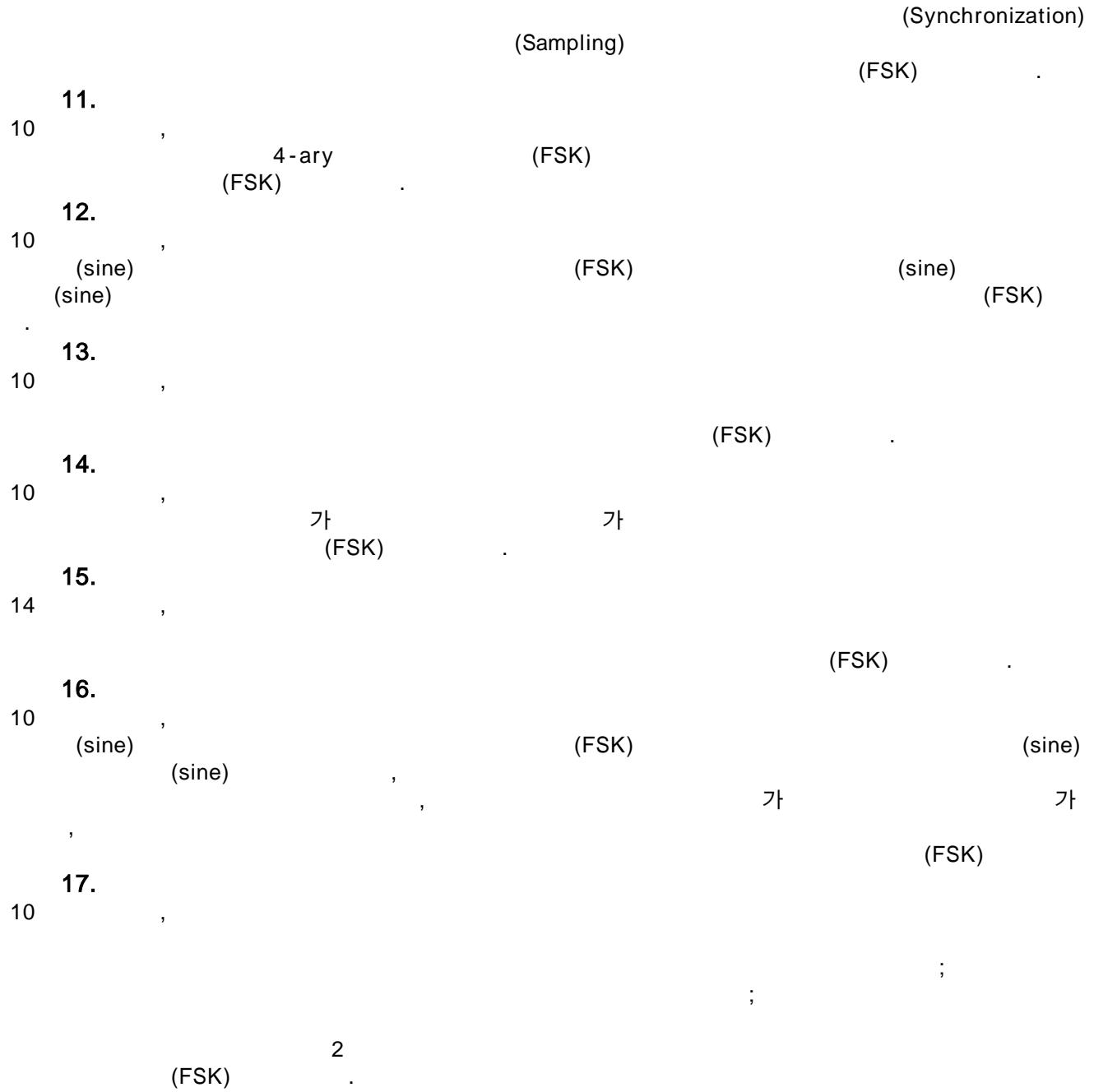
(moving average)

4.

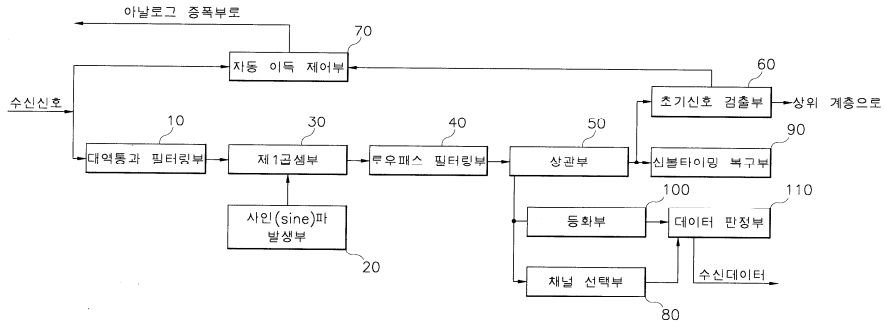
(Sampling)

(Synchronization)
(FSK)

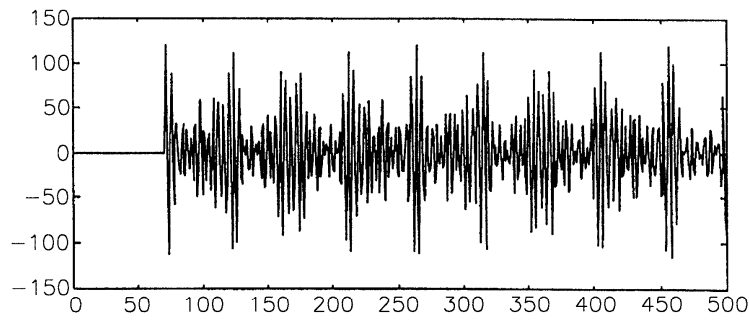
3
(sine) , (FSK) (sine)
(sine) (FSK)
5.
3 , (FSK)
6.
3 , 가 가
(FSK) .
7.
6 ,
(FSK) .
8.
3 , (sine) (FSK) (sine)
(sine) , 가 가
, (FSK) .
9.
3 , ;
; ;
10. (FSK) 2 .
/ ,
/ , ;
; /
(sine) (sine) ; (sine) (20) (
sine) 1 ; ;
; ;
(moving average) ;
/ (moving average)
; ;
; ;
; ;
;



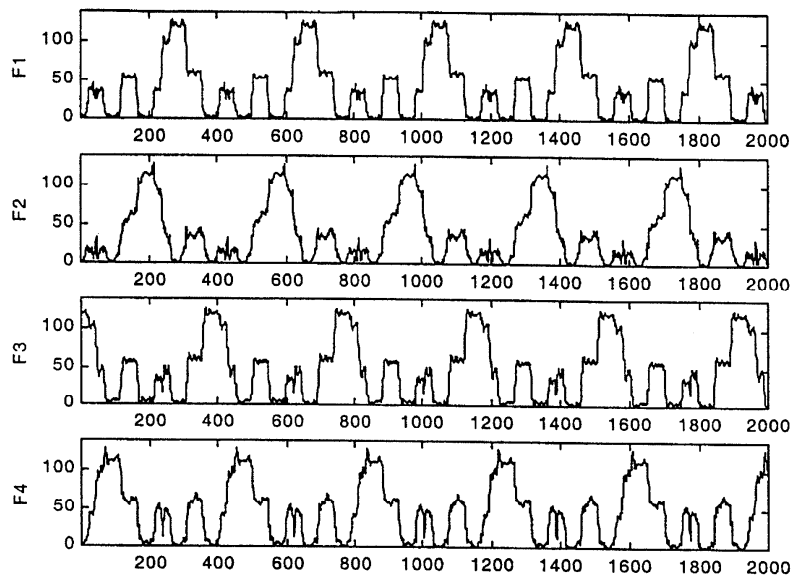
2



3



4



5

