

(19)  
(12)

(KR)  
(A)

(51) 。 Int. Cl.<sup>7</sup>  
G08C 15/04

(11)  
(43)

10-2004-0096394  
2004 11 16

(21) 10-2003-0029491  
(22) 2003 05 09

(71) 28-1

(72) 2 1 1206

291 203 1605

1117 204 1005

1 1 207 908

(74)  
:

(54)

1

, PN (Pseudo Noise Sequence), (In Phase), (Quadrature Phase)

1

2 1

3 1

&lt; &gt;

1 : PN (Pseudo Noise Sequence Generator)

2 : (Signal Mixer)

3 : (Carrier Generator)

4 : (Power Amplifier)

5 : (Coupler)

6 :

7 : (Coupler)

8 : (Low Noise Amplifier)

9 : (Band Pass Filter)

10 : (Digital Oscilloscope)

11 : (PC)

11A :

12A,12B :

13A,13B :

14 :

15 : 90 °

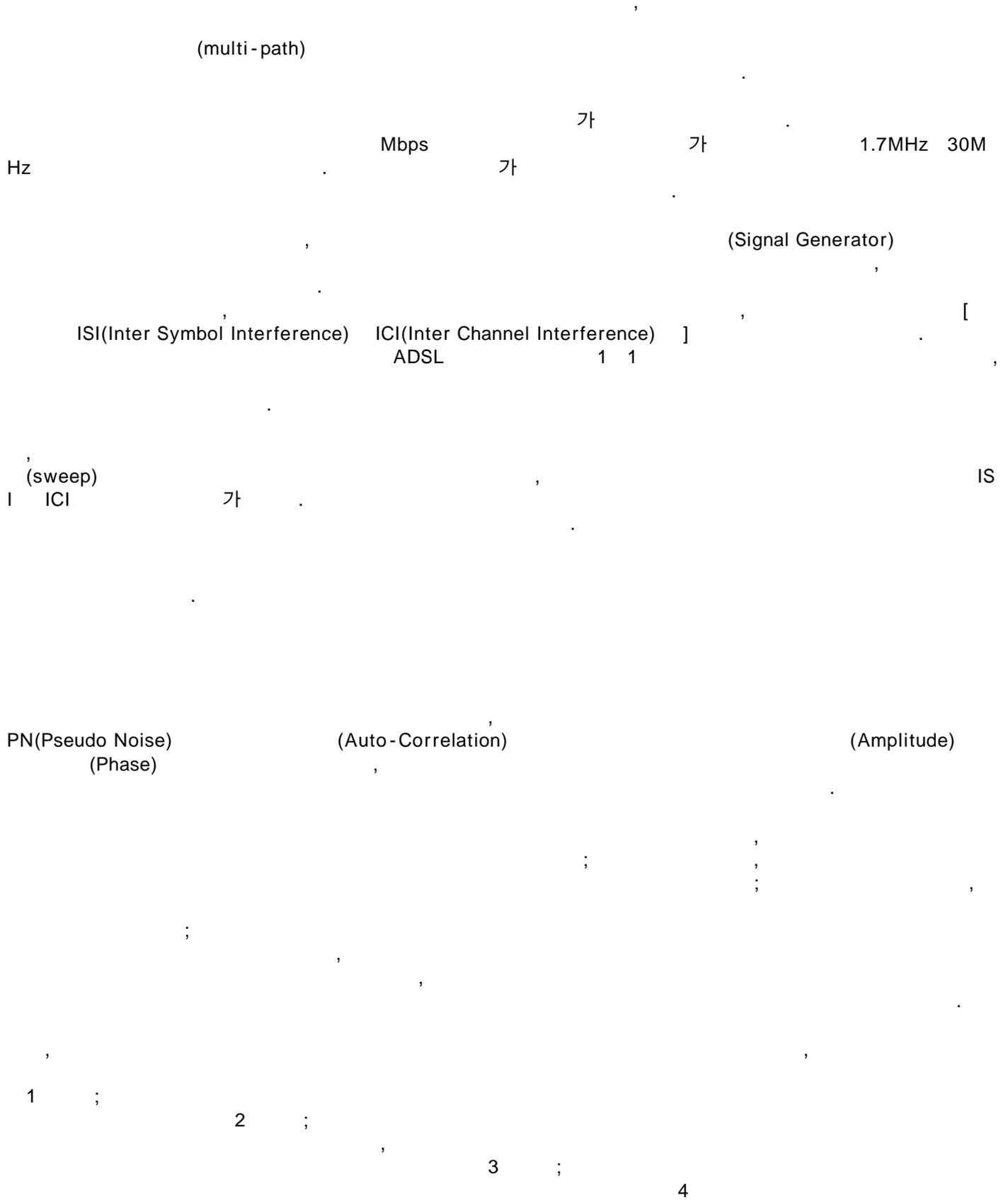
16A,16B :

17A,17B :

18 : PN

19 :

20 :



(domain) (Fourier Transform)

가 PN 가 PN

(1.7M 30MHz) 가 PC

PN (chip: b  
it ) 가 (shift) 가

가 (local peak value)가 가

1

2

PN(Pseudo Noise) (1)

PN (2) PLD(Programmable Logic Device) m- ( )  
maximum length sequence) 가 (chip: PN bit ) PN ( )  
가 가 (shift) 가

local peak value)가 가 (2), (2), (4) (5)

PN (2) PN (2) (cover) -20MH  
(baseband) PN (modulation) , PN  
z ~ 20MHz 21MHz 1MHz~41MHz

1MHz~30MHz

(5) (2) (6) (4)

가 (7) (8), (9) (

10) (6) (7) (8) (10)

(11)

3 (11) (10) (11A) I (In Phase) (12A,1  
 2B) Q (Quadrature Phase) , I Q (13A,13B) Q  
 (14A,14B) 90° (15) 90°  
 (16A,16B) (13A,13B) I Q PN (18)  
 (17A,17B) I Q (17A,17B)

(19) (20) (19)

(19A)(19B) (19) (19A)(19B), 가 (19C) (19D) Q  
 가 (19C) 가 (19C) (19A)(19B) I 가 (19D)

B) Q (20) (17A) I (arctangent) (17)

( ) (local peak)

$$h(\tau) = \sum_{n=0}^N \alpha_n \delta(\tau - \tau_n) e^{j\theta_n}$$

, n n, n n

가 , , 가 , , 가 가 가

가

가 가

(res

olution)

(Digital Oscilloscope)  
(Software)

(Over Sampling) ,

가 가

(57)

1.

;

2.

1

PN (Pseudo Noise Sequence)

3.

2

PN

m- (maximum length sequence)

4.

3

PN

5.

4

PN

-20MHz ~ 20MHz ,

21Mz

6.

3

6 7. , ;  
 , ;  
 ;  
 ;  
 PN PN PN ;  
 가 PN ;  
 ;

7 8. , ;  
 , ;  
 ;  
 90° ;  
 90° .

7 9. , ;  
 , 가 가 .

7 10. , ;  
 , (arctangent) .

6 11. , .

1 12. 11 ,

$$[h(t)] \quad h(\tau) = \sum_{n=0}^N \alpha_n \delta(\tau - \tau_n) e^{j\theta_n} \quad ( \quad , \quad n )$$

13.

1 ;

2 ;

3 ;

4

14.

13

PN (Pseudo Noise Sequence)

15.

14

PN m- (maximum length sequence)

16.

15

PN -20MHz ~ 20MHz , 21Mz

17.

13

4 ,

가 가

18.

13

4 ,

(arctangent)

19.

13

18

$$[h(r)] \quad h(\tau) = \sum_{n=0}^N \alpha_n \delta(\tau - \tau_n) e^{j\theta_n} \quad ( \quad , \quad n )$$

5

