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(71) 4 873-29 4

(72) 329-1 105 1501

4 834-11

3 505

(74)

:

(54) /

/

IC, PLC(Power Line Communication :)

가 , , , , IC

, , ; , , , , ,

, / 가 .

4

PLC, , , ,

1a 1b
 ,
 2a X-10 ,
 2b 2a ,
 3 (HA : Home Auto
 mation) ,
 4 / ,
 5 / ,
 6 / ,
 7 / ,
 8 / PC ,
 9 / / ,
 10 /

300 : 301 :

302 : 303 : 가

304 : 가 305 :

306 : /

401, 1005 :

403 : 405 :

407 : (PC) 409, 1001 : /

501, 601, 701, 801, 901 :

503, 603, 703, 803, 903 :

505, 605, 705, 805, 905 :

507, 607, 707, 807, 907 : IC

509, 609, 709, 909 :

511, 611, 711, 911 :

513, 613, 713, 913 :

515 :

615 :

715 :

815 : PC

915 :

917 :

919 :

921 :

1003 :

1007 :

S , / 가 , / / , / 가 / AR , / 가 , , 가 , , 가 , / 가 , / DC , / , / / 가 , , 가 , , / / 가 , ,

, 가 ,
/ ,
ARS , 가 /

IC, PLC(Power Line Communication :)
가 ;
IC ;
가 /

IC, PLC(Power Line Communication :)
가 IC
가 (Emergency)
가

IC, PLC(Power Line Communication :)
가 IC IC (Emergency)

IC, PLC(Power Line Communication :)
가 IC IC
IC 가

IC, PLC(Power Line Communication :)
PC 가 IC PC
PC 가 PC

(Zero Cross Point)

1 , 1/2 X-10

120KHz

1ms

1a 1b

1a 1b

가

'0'

'1'

(: 10-2000-002198)

(: 10-1999-053820)

(: 10-2001-076335)

가 가

가

가

(10-2001-011864)'

X-10

2a X-10

2b 2a

X-10 'Function Code'가 5
1110 , 1/2

'Start Code'가 2 , 'House Code'가 4

1 가 L1 , 1 0 가

L0 , 0 1

2b

L1 L0

가 '1',

'0'

1(L1)'

가

1 0

, ' 0(L0)'

가

가

, 0 1

2b , 'Start Code' '1110', 'House Code' 'L0,L0,L0,L1', 'Number/Function Code' 'L0,L0 ,L0,L1,L1'

3

(HA : Home Automation)

가 (303), (300) 가 (304) (300) PSTN

(301),

(302),

(305) / (306)

301, 302, 303, 304, 305, 306)

(

(513)

가

5

6

(601), PLC(Power Line Communication :)
(603) (605), IC(607), (609), (611),
(613) (615)

(601) SMPS(Switching Mode Power Supply)
(603) (605) DC PLC (605)
IC(607) (603) IC(607) 가 220V

9)

IC(607) (609) IC(607) (60

(611)

(615) 가
(613)

가

가

가

7

(701), PLC(Power Line Communication :)
(703) (705), IC(707), (709), (711),
(713) (715)

(701) SMPS(Switching Mode Power Supply)
(703) (705) DC PLC (705)
IC(707) (703) IC(707) 가 220V

9)

IC(707) (709) IC(707) (70

(711)

, (715) , 가 IC(707)
) (709) , (709) , 가
 (713) , IC(707) . ,
 , (709) IC(707)
 , 가
 , 가
 8 / PC
 , PC (801), PLC(Power Line
 Communication : IC(807) PC) (803) (805),
 (815) .
 (801) DC SMPS
 PLC (805) (803) (805) IC(807)
 , IC(807) (803)
 가 220V
 PC IC(807) PC (815)
 4 7
 , PC (815)가 IC(807)
 IC(807) , (803)
 , PC / PC(
)
 9 / /
 on :) , (901), (921), PLC(Power Line Communicati
 07), (909), (911), (913), (903) (915), (905), IC(9
 (917) (919)
 (901) SMPS
 DC (921)
 /
 PLC (903) (905) IC(907)
 (905) . (903)
 , IC(907) 가 220V
 .
 9) IC(907) (909) IC(907) , (90
 IC(907)
 (909) 가 (911) (917)가 ,
 (913) , (919)
 가
 (915) , 가가

, / , 가 /
 .
 ng) , / 가 (Polli
 , 가 가
 , 1 (Sub)
 , /
 10 , 10 /
 , / (1001) (1005) / (1001)
 , (1005) 가 , (1005)
 가 가 , / 가
 , (1007)
 (1005) (1003) (1007) (1005) (1005)
 (1003) (1005)
 (1005) (1005)
 , (1005)
 가 가 , 가 , (1005)
 가 , (1005)
 , (1007) (1005) (1007) (1005)
 , (1007) (1005)
 , / 가 (1001)
 가 ,
) (가
 , , ,
 ,
 , 가 가 ,

가 가 , .

. 가 ,

/ , /

가 .

PLC 가

/

/

/

가 ,

/

가 .

가 ,

/

가 .

가 .

(57)

1.

IC, PLC(Power Line Communication :)

가

;

IC

;

;

(Emergency)

가
가

2.

1

DC

3.

2

4.

3

5.

1

IC

6.

1

7.

1

가

8.

1

가

8 9. , , 가 ,

10. IC, PLC(Power Line Communication :) , , 가 , IC , ; , 가 / .

10 11. , DC / .

11 12. , / .

10 13. , (Polling) / .

10 14. , IC / .

10 15. , / .

10 16. ,

17.

1 9 ;

10 16 /

18.

; 10 16 / ,

IC, PLC(Power Line Communication :)

가

;

IC

IC

;

IC

(Emergency)

/

19.

18 ,

DC

/

20.

19 ,

/

21.

18 ,

IC

/

22.

18 ,

가

,

/

23.

18 ,

/

/

24.

; 10 16 / ,
IC, PLC(Power Line Communication :)

가

;

IC , IC 가 ;
IC 가 , ;
/ 가 .

25.

24

,
, DC
/ .

26.

25

,

27.

24

,
, IC
/ .

28.

24

,
, 가 , / .

29.

24

,
가 , , / .

30.

1

9

; ,
, PC IC, PLC(Power Line Communication :)

가

;

IC PC , PC PC

가 , , / .

31.

30 , , DC / .

32.

30 , , / IC .

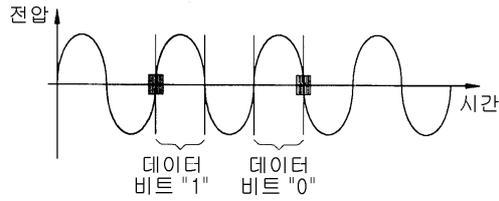
33.

; , , IC, PLC(Power Line Communication :)
1 , 1 , 1 , 1 ; IC 1
가 , 1 IC ; 1
IC , 1 IC (Emergency) , 1
2 , 2 PC IC, PLC(Power Line Communication :)
2 가 PC , 2 ; PC 2 IC PC 2
PC , PC 가 PC ,
2 / .

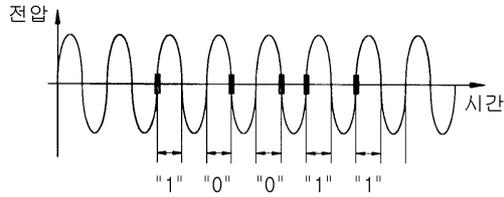
34.

; , , IC, PLC(Power Line Communication :)
1 , 1 , 1 , 1 ; 1 1 IC
가 , 1 가 , 1 ; 1
IC 1 IC 가 , ; 1
1 , 가
2 , 2 PC IC, PLC(Power Line Communication :)
2 가 PC , 2 ; 2 IC PC 2
PC , PC 가 PC ,
2 / .

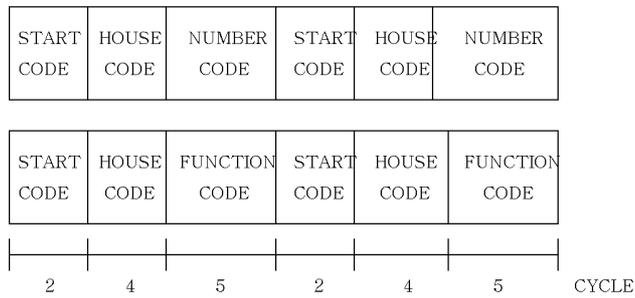
1a



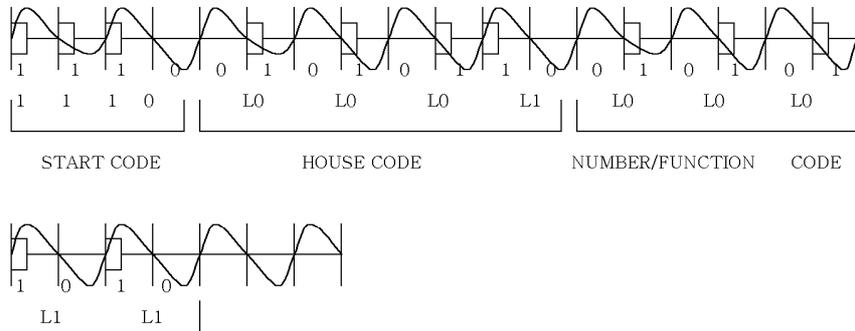
1b



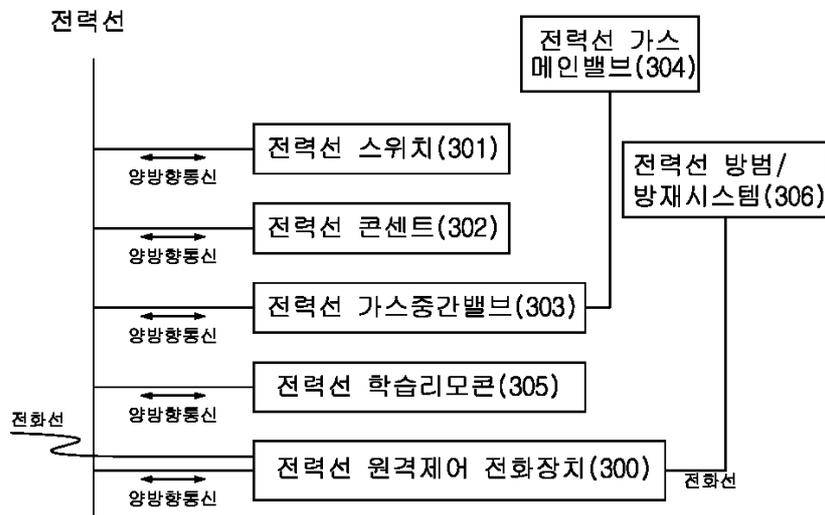
2a



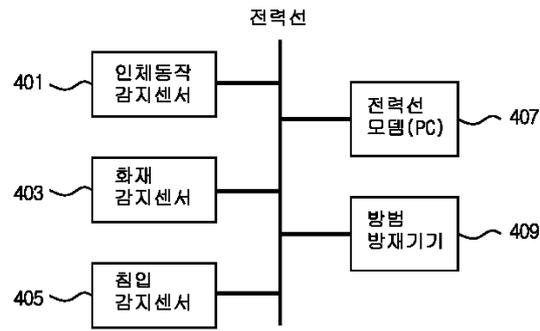
2b



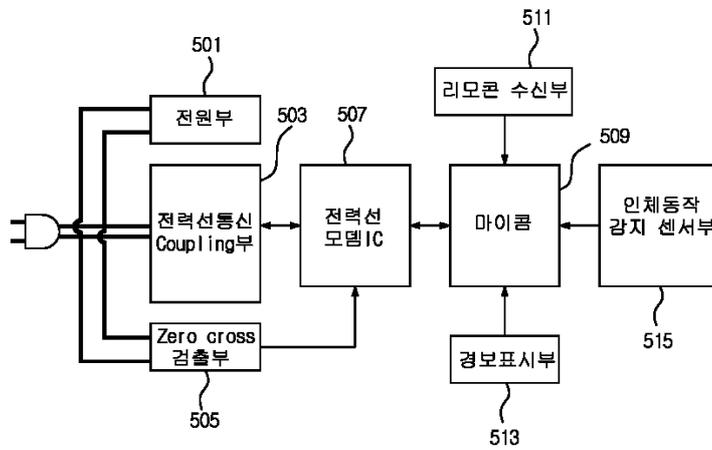
3



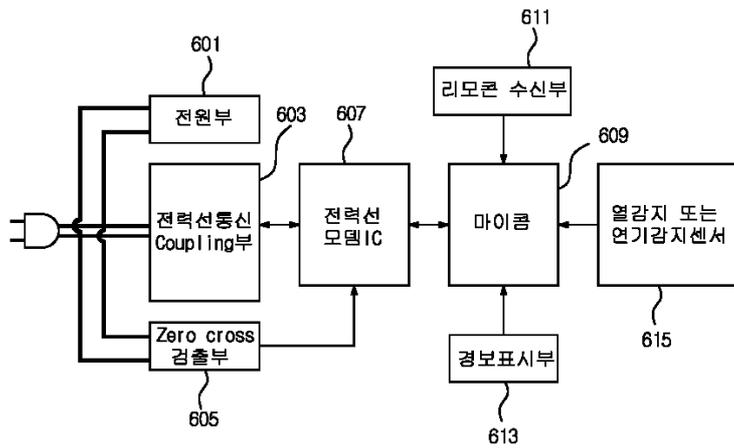
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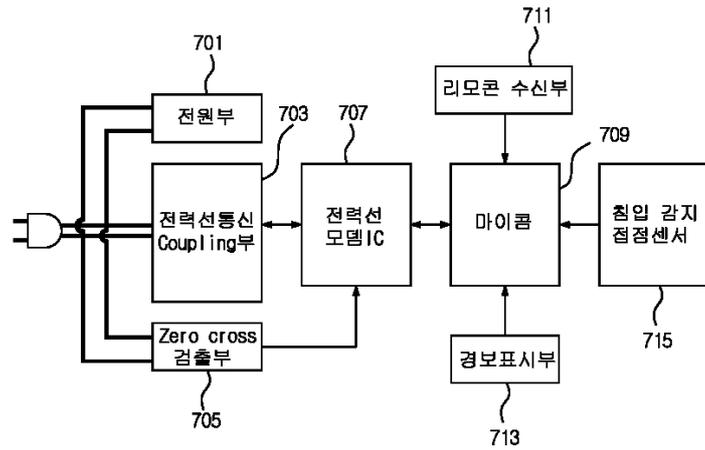
5



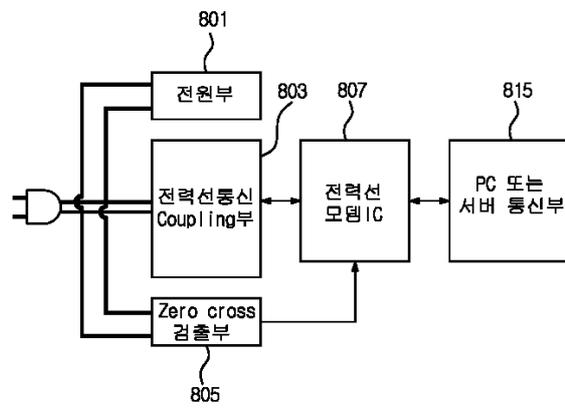
6



7



8



9

