

(19)
(12)

(KR)
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H04L 5/16

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(43)

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2003 05 17

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(22) 2001 11 10

(71) 736-1

(72) 1 A.P.T334 - 403

(74)

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(54)

[illegible]

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$$3 \qquad \qquad \qquad , \qquad 1 \qquad \qquad 2$$

4. , 가 .

< >

110, 210... 1 111... 1
112, 212... 1 120, 220... 2
121... 2 122, 222... 2
130, 230... 211... 1
213... 1 216... 1
217... 1 221... 2
223... 2 226... 2
227... 2

, 2 , / , .
 , .
 , .
 , (ground) 가 가 , 가 ,
 , 1 , (Opto-coupler)
 . 1

1 1 (112) 1 (110) ; 1 (110) 2 1 (111)
2 (122) 2 (12); 1 (120) 2 (121)
(130) .
(122) , 1 (110) 2 / 1 (112) 2
, 1 (110) 1 (111) 2 (120) 2 (122)
, 2 (120) 2 (121) 1 (110) 1 (112)
 , 1 (110) 2 (120) (130) 4
 , 가 , 가
 / (DC/DC converter) 가 가 ,

, , /

, 2

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, ,

1 (opto-coupler) 1 (differential line driver) , 1 ;

1 1 2 2 ; 1 1

2

1 2 , 2 ;

, 1 2 ,

, 가 ,

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, 2 /

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2

2 (220) 1 (212) 1 (222) 2 (230)

(211) , 2 (220) 1 (210) 1 (211) 2 (221) 2 (230)

210) ; 1 (210) 1 (212) 2 (220) , 2 (221) 2 (230)

, (220); 1 (210) 1 (210) 2 (220) , 2 (221) 2 (230)

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, (230) 1 (210) 2 (220) , (213)(223)가 (230)

, 1 (210) R1 2 (220) R2

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, 1 2 (212)(222) 1 2 (216)(226) , 1 2 (216)(226) 1 2 (217)(227)

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3 , 3 4

3 , 1 2 가

, 4

, 3 1 (210) 2 (220) 가 가 , 1 (210)

) 1 (211) 'Tx enable' 가 가 , 1 (210)

1 (210) 1 (213) 'Relay open' 가 가 , 1 (210)

1 (212) 'Rx disable' 가 .

3 , 1 (210) 2 (220) 가 , 2 (220) 2 (22

3) 'Relay close' 가 가 가 , 2 (220) 2 (22

(221) 'Tx disable' 가 가 .

, 1 (210) 1 (211) (230)
, 2 (220) 2 (222) , 4 ,
, (211)(221) (213)(223) 1 (210) 2 (220) / , 2
(230)

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, 2 /
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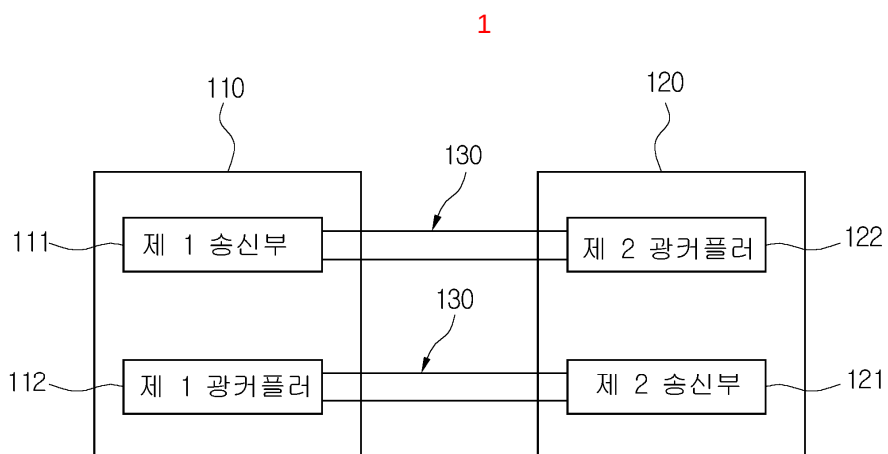
(57)

1.

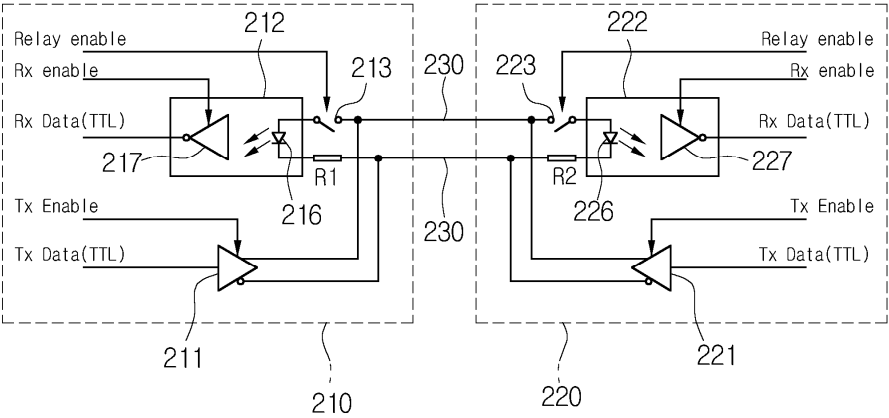
1 ; 1 1
1 1 2 2 ; 1 1
1 2 , 2 ;
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2.

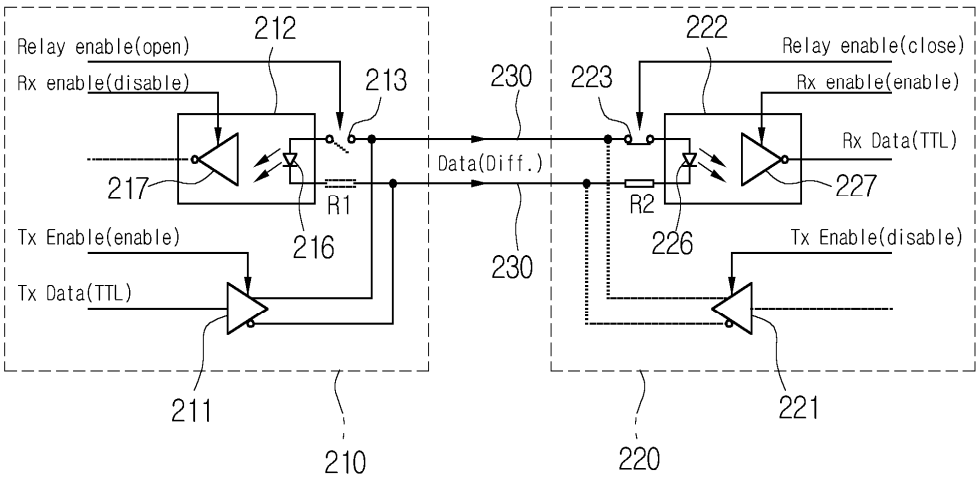
1 ,
1 가 2 ,
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2



3



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