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2002 02 20

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(22) 2000 08 09

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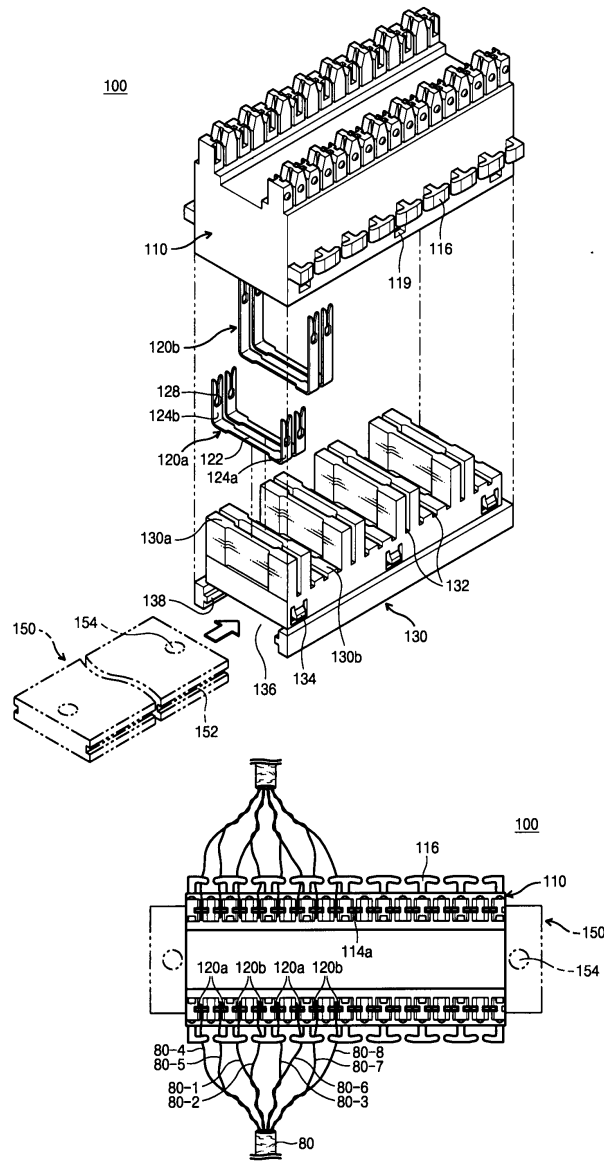
(72) 2 505 14 908

(74)

:

(54)

, , , , 가 .



1 ;

2 1 ;

3 ;

4 ;

5 3 a - a ;

6 3 b - b ;

7 3 c - c ;

8 ;

9 UTP ;

10 .

* *

110 : 112 :

114 : 114a :

116 : 120a :

120b : 122 :

130 : 130a :

130b : 132 :

134 : 136 :

138 : 가 140 :

150 : 80 : UTP

가

가

가
가

UTP
(Attenuation)

UTP
10 - 100MHZ
(Return Loss)

UTP
가

가
(Near - end Crosstalk Loss)

UTP

UTP

1 4P UTP . UTP 1 4 & 5 (& /) 1,2 ,
 2 1 & 2 (/ &) 3,4 , 3 3 & 6 (/ &) 5,6 ,
 , 4 7 & 8 (/ &) 7 & 8 .
 , 1 3 1,2,5,6 가
 가 , 1 3 2 4
 , , 가
 가 . , 가

100MHz(Class D)

UTP 4

가 ; / , UTP ; 가
 , / 가 ;

가

UTP UTP & / , & /
 , & / , & / ;

1 , 2 ,

1 10 가 .

1 . 2 1 . 3

1 3 , (100) 8 (110),
 (120a), (120b), (140), .

(110) (102a) (120b) (112)
 / (114) 가 , (114a) .
 , 1 (100) (110) UTP (116) (116)
 () (9) (112) , UTP
 . (110) .
 / (120a,120b) (110) (114) / (12
 0a,120b) / (124a,124b) (114a) (110)

/ (120a,120b) (quick clip type) (122), (124a)
 (124b) / (124a,124b) (128) , 가 UTP (128)
 , UTP (80)
 / (124a,124b) (,) (124b)가 .
 (124a)가 , (,)

4 5 a - a (100)
 (110) (120a) (120b) 가 , 가
 . (120a) (120b) 가 , (가
) 가 , , (120b)
 (120a) (X) 8mm , 12mm 가

, / (120a,120b) (122) 가
 . (2) / (120a,120
 b) , 가 .

4, 5 8 (130) (110) (1
 30) (130a,130b), (132), (134), (136), 가 (138) (140) .
 (130) , / (120a,120b) (114)
 (130b) , (122) (.) (130a) (120a) (130a)
), (130b) (120b) .(7) (6

, (130) (132) (130) (130a,130b)
 (132) (130)가 (110) , (112) . ,
 (130) (110) (134) , (110)
 (134) (119)

(138)가 8) (130) (136) (150) 2 (152) (140)가 1 (156) , (100) (150) 2 8 (138) 가 2 (154) (150) (100) 8 (8P) (100) , 4 , 16

UTP 9 5

9 (4 5)(80 - 4, 80 - 5) (120a) UTP (80) 1 & / (1 2)(80 - 1,80 - 2) , (120b) 2 & / (3 6)(80 - 3,80 - 6) , (120a) 3 & / (7 8)(80 - 7,80 - 8) , UTP 2 (80 - 1,80 - 2) 4 (80 - 7,80 - 8) (120a) , 2 (80 - 1,80 - 2) 4 (80 - 7,80 - 8) (120b)

(Near - end Crosstalk Loss) (margin) (Return Loss) (margin) 10

[1]

단자핀 배열 형태		RETURN LOSS 여유값 (반사손실)	NEXT 여유값 (근단누화)
짧은 핀 일자배열		3.1	2.5
긴 핀 일자배열		2.0	2.1
지그재그 A 배열		2.2	2.0
지그재그 B 배열		3.9	3.3

: OMNI SCANNER(Micro test)

: ISO D - LINK2000(100MHz)

: UTP CAT5(LUCENT)

(가) , () , ()

1 10 () 가 () 가

100MHz(Class D) 가

1 , 2 , 3

가

가 100MHz(Class D)

(57)

1.

UTP 가 :

/ ;

가 ;

/ 가 ;

2.

1 , 가

3.

1 2

UTP

UTP & / , & / , & / , & /

4.

1 ,

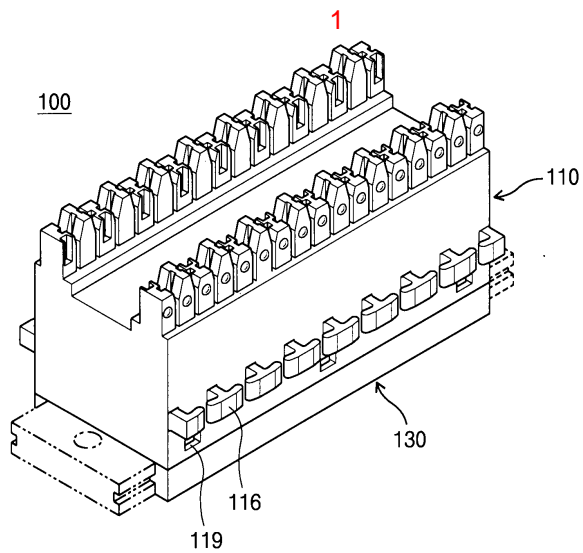
8mm - 12mm

5.

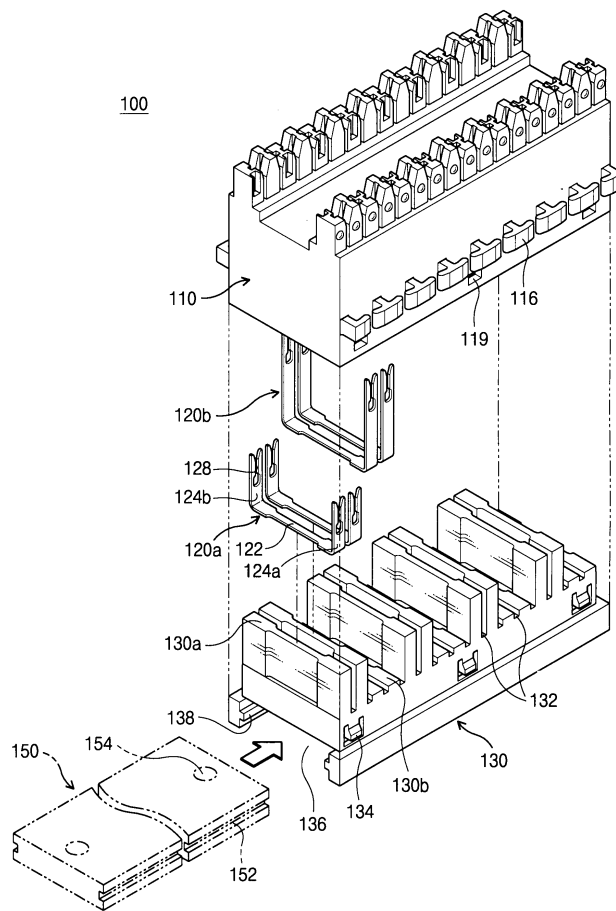
1 ,

1

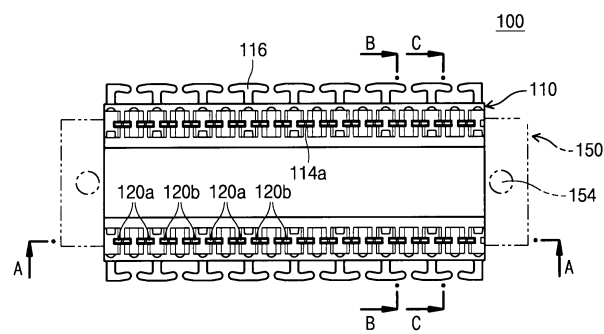
2



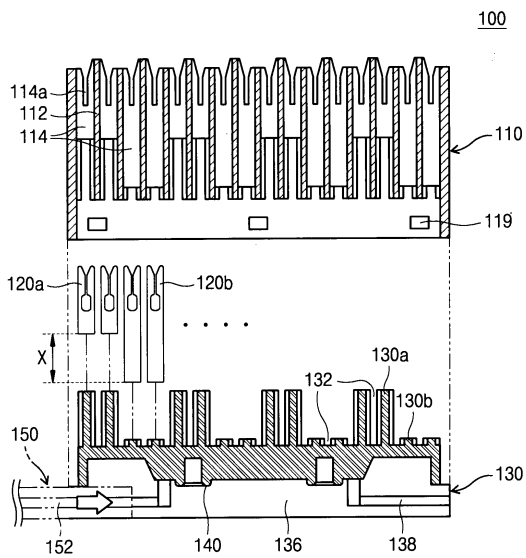
2



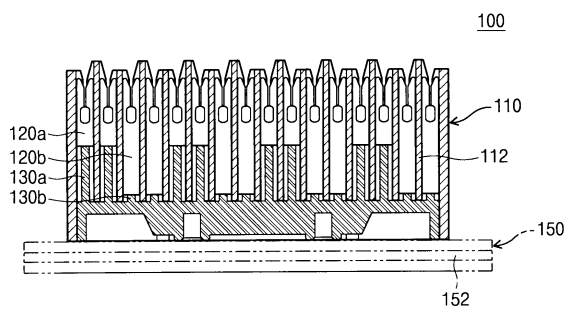
3



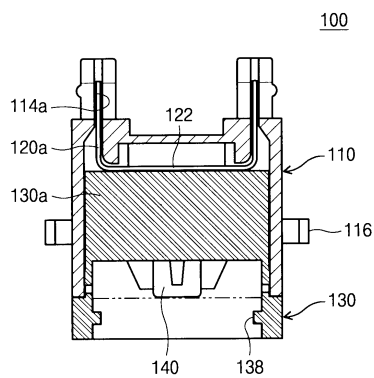
4



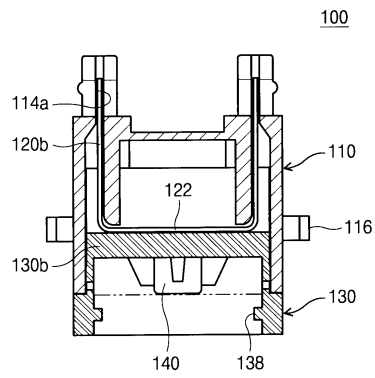
5



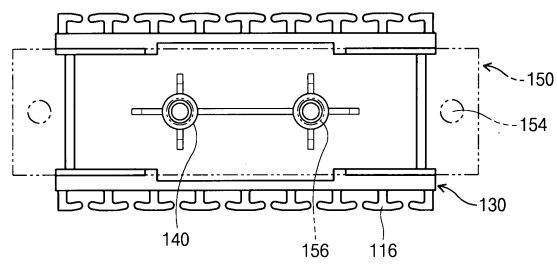
6



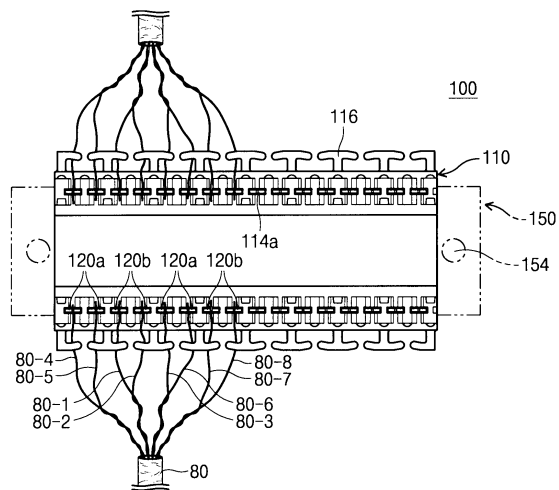
7



8



9



[가]

짧은 핀 일자 배열							
반사손실 (여유값: 3.1dB)				근단누화 (여유값: 2.5dB)			
Pr	dB	Limit	MHz	Pairs	dB	Limit	MHz
012	18.8	12.1	97.4	12/36	37.8	32.7	94.2
036	15.8	12.3	94.1	12/45	39.1	34.5	73.3
045	18.2	12.2	94.9	12/78	52.8	34.0	78.9
078	18.2	14.8	40.7	36/45	39.2	32.9	92.0
R12	18.1	12.7	80.9	36/78	39.2	32.8	92.4
R36	15.9	12.7	80.0	45/78	36.8	33.0	90.8
R45	16.8	12.7	81.6				
R78	17.0	12.6	83.0				

[나]

긴 핀 일자 배열							
반사손실 (여유값: 2.0dB)				근단누화 (여유값: 2.1dB)			
Pr	dB	Limit	MHz	Pairs	dB	Limit	MHz
012	18.8	12.7	80.7	12/36	37.9	35.8	61.2
036	15.5	12.7	80.3	12/45	38.9	34.4	74.0
045	16.9	12.7	81.6	12/78	51.5	32.5	96.2
078	17.0	12.7	82.3	36/45	38.8	32.8	92.4
R12	17.4	12.2	95.1	36/78	38.5	33.2	87.5
R36	14.3	12.3	93.8	45/78	38.0	32.9	91.3
R45	16.8	12.2	94.4				
R78	16.3	12.1	97.4				

[다]

지그재그 A 배열							
반사손실 (여유값: 2.2dB)				근단누화 (여유값: 2.0dB)			
Pr	dB	Limit	MHz	Pairs	dB	Limit	MHz
012	15.5	12.5	85.4	12/36	36.3	34.3	74.9
036	15.0	12.8	79.6	12/45	37.5	32.9	91.7
045	15.8	12.6	83.2	12/78	55.1	34.3	75.5
078	15.9	12.5	85.4	36/45	37.6	34.3	75.1
R12	15.4	12.5	86.1	36/78	37.7	34.2	76.7
R36	15.0	12.7	80.7	45/78	44.1	32.9	91.3
R45	16.2	12.6	83.6				
R78	16.2	12.6	85.2				

[라]

지그재그 B 배열							
반사손실 (여유값: 3.9dB)				근단누화 (여유값: 3.3dB)			
Pr	dB	Limit	MHz	Pairs	dB	Limit	MHz
012	17.3	12.6	84.5	12/36	40.8	34.3	74.9
036	16.7	12.8	79.8	12/45	38.1	33.0	90.8
045	16.7	12.6	83.0	12/78	53.3	34.1	77.6
078	16.7	12.6	84.3	36/45	37.0	32.6	95.1
R12	17.4	12.5	85.7	36/78	38.7	34.2	76.0
R36	16.9	12.8	79.8	45/78	42.6	33.0	90.6
R45	17.2	12.6	83.9				
R78	17.5	12.6	84.8				