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2001-0078461
2001 08 21

(73) 799 가 602

(72) 584 가-106

(74)

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(54) 4 /

가 4 / /
; 1 , 1 1 2 2 4 / / 1
2 3 ; 1 , 2 , 2 3 / 4
4 ; 2 , 3 4
4 , 가 .

4

1
2
3 2
4

210,400: 220,490:

230,A: 1 240,B: 2
 250: 310,410,450: 1 WDM
 320,420,460: 2 WDM 330,430,470: 3 WDM
 340,440,480: 4 WDM

4 / 가 4 / 가

가 CATV

가 , 80% 가 가 (Line-of-Sight) 가

1 (100) (110) (120)

25) (120) (master unit)(125) (slave unit)(125a~125d) (110) 3 (125a~125d) (110) (110) (1)

(110) () (125) 4 (125a~125d) (110)

5) (120) (125) (110) 가 (125a~125d) (12

00) (125) (110) (110) 1550nm (125) 1310nm (1

가 (110) 가 1.5km, 5km 20km

(100) (110) 12 CATV FITL(Fiber In To Loop) 가

가 32 x 32(, 32 32) 1 x 2(, 2)

(star coupler), (directional coupler) (tree coupler) 가 가 ,

th Division Multiplexing) () (WDM: Wavelength 2

2 . WDM , 1550nm 1310nm , 가

(Grating) . WDM 가 가

(Dichroic Coating) 가 1:1, 1:2, 1:3 가 가

가 가 가 가

가 , , 가 가 가 가

1:1 1310nm, 1550nm WDM / 4 4 /

가 /

2 / 1 ; 1 1 2 2
 2 3 4 ; 1 2
 2 3 4 1

가

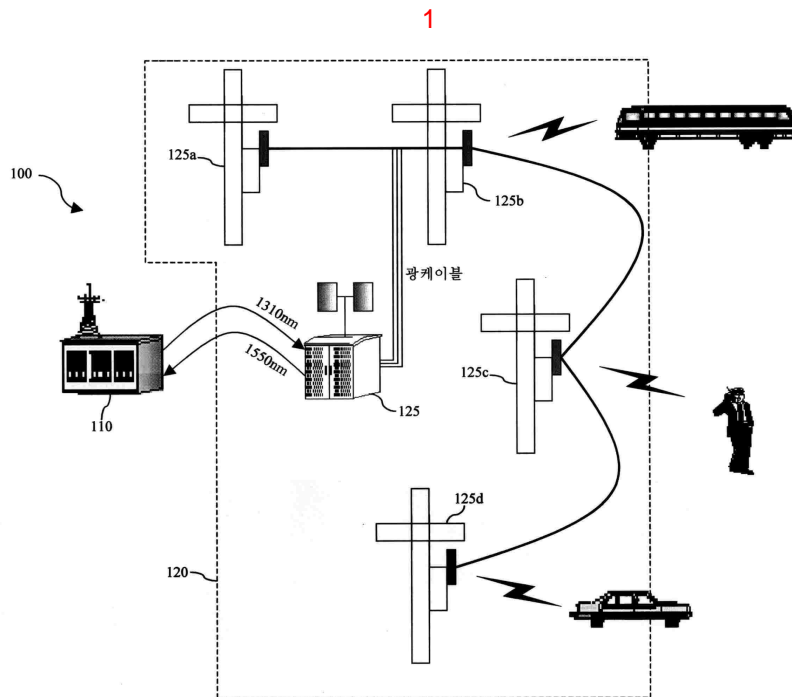
(Blocking) (Fiber Type) (Isolation)가 60d
 B 4 / 25~60dB
 2 (220), (230, 240) (200) (200) (210),
 (230, 240) (210) (210) (210)
 (210) () (210) 가 / (210)
 (210) (210) (210)
 (220) (230, 240) (220) (220) (210)
 (210) (220) (210) (210) (220)
) 1310nm (220) (210) (210) (220)
 1550nm , 2 (240) 1 (230) (240) 1510nm
 (, 1480nm, 1570nm). (230) (240)
 1400~1700nm (250) , 2 (240) 1 (230) (2
 30) (210) (250) (240) 1 (230)
 (220) (250)
 3 2 (300) 4 WDM(310, 320, 330, 340)
 (230) 2 (240)
 (300) 1 (230) 2 (240) 3 WDM

(400) (490) (400) (490)
 가 (A) 1 WDM 2 WDM (400) 2 1310nm 1 (490)
 , 1 WDM(410) 2 WDM(420) , 2 1 WDM
 , 1 WDM(410) 2 WDM(420) (400) (490)
 . 2 (B) 가 1310nm 1 (A)
 (490)
 1550nm 2 (490) (400) (490) 가
 70) 가 1550nm (B) 2 WDM(460) 3 WDM(470) (490) 가
 가 1 (A) 1 WDM(450) , 1 (A) 2 WDM(420)
 (A) 가 1550nm 2 (B) (400)
 , 1 (A) 2 (B) , 1 (A)
 2 (B) 1510nm , 1510/1530 20nm FBT WDM
 1550nm 1510nm . 1 (A) 4 WDM(440) 151
 Onnm 3 WDM(430) 2 WDM(420) 2 (B) 1 WDM(450) 가
 . 2 (B) 가 1510nm 1 WDM(450) 3 WDM(470) , 4 WDM(480)
 . 2 (B) 4 WDM(480) 1510nm
 , 2 (B) 1 (A) , 2 (B)
 1 (A) 1530nm , 1 (A) 2 (A)
 B) FBT WDM 1550nm 1530nm , 1 (A) 가 1510/1530 20nm
 0) 3 WDM(470) 1530nm 1 WDM(450) . 2 (B) 4 WDM(48
) 가 2 WDM(420) 3 WDM(430) 4 WDM(440) 1 (A) 2 WDM(420)
 1530nm
 , WDM 4 / , 1
 2 m 1310nm , 1310nm 1550nm 1550nm, 1530nm, 1510n
 25~60dB
 m 1310nm, 1510nm, 1530nm 1550nm
 -12dB , -25dB , 1310nm 1550n
 , 1310nm
 -25dB , 3dB , 1310nm
 ± 10nm , 1510nm, 1530nm 1550nm ± 7nm .
 가 ,

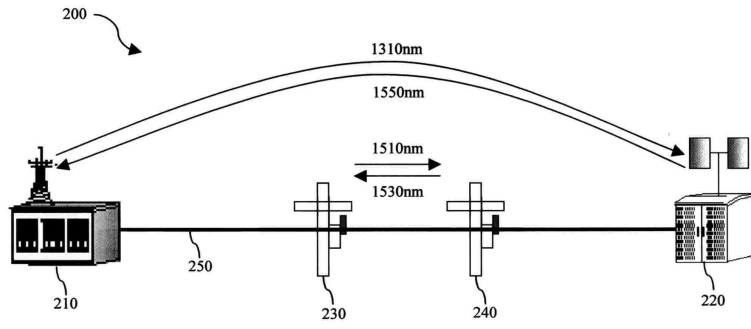
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 가 / ,
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 1 2 / 1 ;
 / 1 2 ; , 1 2
 / 1 2 ; , 2 3 4
 3 2 ; , 3 4 4

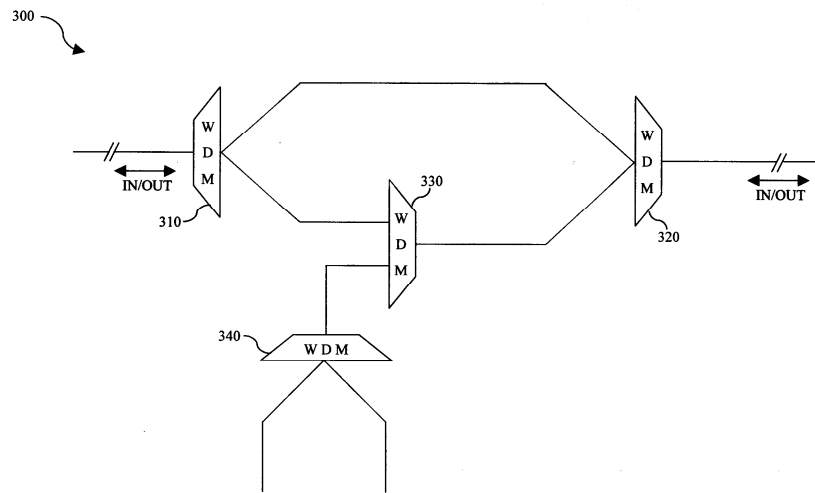
- 2
- 4 /
- 1
2. 1 1310nm, 2 1550nm, 3 1510nm, 4 1
- 530nm
- 4 /
3. 1 2 3 4 /
4. 2 4 /
5. 1 3 4 / 1400nm~1700nm
6. 1 4
- 25~60dB
- 4 /
- 7.



2



3



4

