

(19) (KR)
(12) (B1)

(51) 。 Int. Cl.7
H04B 7/26

(45)
(11)
(24)

2003 10 23
10-0403233
2003 10 14

(21) 10-2003-0053895 (65) 0000-0000000
(22) 2003 08 04 (43) 0000 00 00

(30) 1020020087438 2002 12 30 (KR)

(73) 99

(72) 2 247 104

3 54-226

422 APT102 601

() APT101-1308

(74)

:

(54) 1 x E V - D O 1 X

(HAT : Hybrid Access Terminal) 1xEV-DO 1X
1xEV-DO (100) 1xEV-DO (110) ,
(110) (110) 가 , (14
0) (110) , ,
(140) (110) (110) 1X
, 1xEV-DO 1X

CDMA 2000 1X, , CDMA 2000 1x EV-DO, ,

1 1xEV-DO 1X
 2a 1xEV-DO ,
 2b 1xEV-DO ,
 3 1xEV-DO ,
 4a 4b 1xEV-DO 1xEV-DO 1X ,
 < >
 110 : (HAT) 120 :
 122 : 1X (BTS) 124 : 1xEV-DO (ANTS)
 130 : 132 : 1X (BSC)
 134 : 1xEV-DO (ANC) 140 : (MSC)
 142 : HLR 144 : VLR
 146 : PSTN 150 : PDSN
 160 : IP

(HAT : Hybrid Access Terminal) 1X 1xEV-DO
 , 1xEV-DO
 (Call Drop) , 가 1X
 1X
 1 AMPS(Advanced Mobile Phone Systems) , 2 (Celluar
)/ (PCS : Personal Communication Service) , 3
 IMT-2000 IMT-2000(International Mobile Telecommunication-2000)
 CDMA(Code Division Multiple Access) 2000 1X CDMA 2000 1x EV-DO
 CDMA2000 1X IS-95A, IS-95B IS-95C IS-95 A/B
 14.4 Kbps 56 Kbps 144 Kbps 가
 CDMA 2000 1X WAP(Wireless Application Protocol)
 (AOD, VOD) 가
 IMT-2000 3GPP(3rd Generation Partner
 ship Projects)2 IMT-2000 (Qualcom)
 HDR(High Data Rate) "CDMA 2000 1x EV-DO(Evolution Data Optimized
)" . CDMA 2000 1x EV-DO(, '1xEV-DO') CDMA 2000 1X(
 , '1X') CDMA 2000 1X
 1X (Circuit) (Packet) 307.2 Kbps
 , 1xEV-DO 2.4 Mbps
 DO " CDMA 2000 1X "1X" , CDMA 2000 1x EV-DO " "1xEV-
 1xEV-DO 1X
 1xEV-DO 1X

DO
 1X
 1xEV-DO 1X
 가 , 가
 가 , 가
 1 가 1xEV-DO 1X
 , 1xEV-DO
 1 (100) 1xEV-DO 1X
 , 1X (122), 1X (132), (MSC: Mobile Switching Center)(140)
 10), 1X (110), 1xE
 V-DO() (ANTS: Access Network Transceiver Subsystem)(124) 1xEV-DO() (ANC: Access Network Controller)(134), (PDSN: Packet Data Serving Node, 'PDSN'
)(150) IP(Internet Protocol) (160)
 (110) 1X
 , 1xEV-DO
 가 (110) (Idle State) 1X
 1X , 1xEV-DO 가
 1xEV-DO 가 1X
 1X 1xEV-DO (110)
 (Baseband Modem) MSM(Mobile Station Modem) (Tracking)
 MSM (Searcher) MSM
 (110)가 1xEV-DO 1X
 , 1X 1xEV-DO
 1xEV-DO 1xEV-DO (Foward Link)
 (110) CDMA(Code Division Multiple Access)
 TDM(Time Division Multiplexing :) (Time Slot)
 , (110) 1xEV-DO (124) 1xEV-DO (134)
 , 가 CDMA
 , (110) 1xEV-DO , 1X 가 1xE
 1X V-DO (122) 1xEV-DO (124) (BTS: Base station Transceiver Subsystem)(120)
 , (Air Interface) (110) (110)
 , 1X (122) (110)
 1X , 1xEV-DO (124) (110)
 (132) 1xEV-DO (134) (BSC: Base Station Controller)(130)
 (120) , 1X (132)
 1X (130) , 1xEV-DO (134)
 1xEV-DO PDSN(150)
 , 1xEV-DO (134) (110)
 10) (110)
 , (110) 가
 0) (140) (110) MIN ESN (11)
 , (110) (140) (110)
 , (110) 1X
 (140) 1X (132) (PSTN: Public Swi
 tched Telephone Network)(146) (110) 1X
 , (140) (110)
 (Home Location Register, 'HLR')(132) , (11)

0) (Visitor Location Register, 'VLR') (110) (Profile) (110) (110) MIN(Mobile Identification Number), ESN(Electrical Serial Number), 가 가 (Internet Protocol Packet) IP (160) TCP/IP PDSN(150), IP (160) MPEG TDM (110) CDMA PDSN(150) 1xEV-DO (Power Control) (Hard Handoff)가 가 (Softer) (Soft Handoff)가 가 (110) 1xEV-DO, 1X (140) 1X 1X (110)가 1X (110)가 1X DRC (140) (110) 1xEV-DO, 1X (140) 2a 1xEV-DO (110) 2a (Traffic) (Pilot) 1xEV-DO (110), MAC(Medium Access Control) (110) (110)가 1xEV-DO (Coherent Detection) MAC control), RA(RReverse Activity) RPC(RReverse Power Control), RA (110) RPC (110)가 1xEV-DO (110) (Broadcast Message) 1xEV-DO (110) (Direct Message) (110) 2b (Time Slot) 1 (Frame) 16 (First Half Slot) 1024 (Chips) 26.67 ms (Second Half Slot) 1024 (Chips) 2048 (Chips) 1.67 ms 400 (Chips), MAC 64 (Chips), 96 (Chip s), (MAC) 64 (Chips), 400 (Chips) 1xEV-DO 3 (110) 3 1X (Access) AC (Ack), MAC RRI(Reverse Rate Indicator) DRC(Data Rate Control) (Origination) (Connection_Request Message) (Registration) (Route_Update Message) (Stability) 9.6 Kbps (110)가 1xEV-DO 2a (Coherent Detection) (110)가 1xEV-DO (110)가 1xEV-DO MAC (110)가 1xEV-DO

가 , MAC RRI (110)가 (110) , RRI .
 , DRC 가 (110)가 (110) DRC Cover .
 , 1xEV-DO (124) 1xEV-DO (124) DRC Cover C/I(Carrier to Int
 (110) DCR Cover .
 erference) (110)가 1X 1X (132) 1X (122)
 4 , 1X (Initialization) , 1X
 -DO (110) 1XEV-DO (134) 1xEV-DO (132) 1
 xEV-DO , (110) 1XEV-DO (S410).
 1X 1xEV-DO (110) 1X , 1X 1
 xEV-DO , 1X 5.12 1xEV-DO , 1X 1
 (S420). , (110)가 1X , 5.12 (1
 24) (111) , 1xEV-DO EV-DO (124)
 , 1X (110) 1X 1xEV-DO
 , 1xEV-DO (124) 1xEV-DO
 (110)가 1xEV-DO (124) 1xEV-DO
 1xEV-DO (124) (Connection) (Session)
 (Communication Path) ,
 , (110) 1xEV-DO (124) 1xEV-DO (124)
 1xEV-DO (110) 1xEV-DO (124)
 (124) S430 , (110)가 1xEV-DO (110) 1
 xEV-DO S430 (110)가 1xEV-DO (S440).
 , S430 (110)가 1xEV-DO (110) 1
 1xEV-DO (124) 가 (110) 가
 가 , (110)가 1X (S450),
 (110) 1xEV-DO 1X 1X (122)
 1X (110) VLR(134) , VLR(134) (140)
 (Profile) (110) (110) 1X
 (110)가 1xEV-DO (110) 1xEV-DO
 가 , 1xEV-DO (134) 가 , (110) DRC (110)가
 , 가 (S460). ,
 가 ,
 1xEV-DO (134) , 6 6 가 (S470), (110)
 가 (S480). (110)가
 가 , (110) 1xEV-DO
 , (110) 가 , (110)
 (S480), 1xEV-DO (134) (140) (110)
 MIN ESN (110)

(S490).
 (140) (110) , 1xEV-DO (134)
 1xEV-DO (134) (110) 1xEV-DO (134) (140)
) 1xEV-DO (134) (110) (140) (110) (S510).
 1X , 1xEV-DO (124) 1xEV-DO (134) (110)가 가 1xEV-DO
 가 가 (110)
 1xEV-DO (134) (110) (110)
 (S520), (110)
 , 1xEV-DO (110) 가 1X
 (Call Drop) 1xEV-DO 1X
 가 가
 가 가
 가
 1xEV-DO 가 1X
 1xEV-DO 가 1xEV-DO
 1xEV-DO 가 1X
 , 1xEV-DO 가
 , 1xEV-DO 1xEV-DO
 가 1xEV-DO

(57)
 1.
 CDMA 2000 1x EV-DO(Evolution Data Optimized) ('1xEV-DO'
) CDMA 2000 1X (, '1X')
 1X 1xEV-DO 1X 1xEV-DO 1X , 1xEV-DO
 -DO 1X 1X / 1X
 (HAT: Hybrid Access Terminal);
 1X 1X (BSC);
 1X (HLR);
 (VLR) 1xEV-DO ;
 1xEV-DO ;

1X

1xEV-DO

(ANC)

1xEV-DO

1X

2.

1

1xEV-DO

1X

1xEV

-DO

1xEV-DO

1X

1X

3.

1

(Idle State)

1X

1X

1xEV-D

O

1xEV-DO

1X

1xEV-DO

1X

4.

1

1xEV-DO

가

MIN ESN

1xEV

-DO

1X

5.

1

1X

1X

, MSM(Mobile Station Modem)

1xEV-DO

(Searcher)

1X

6.

1

1xEV-DO

(Foward Link)

(TDMA: Time Division Multiple Access)

1xEV-DO

(Reverse Link)

(CDMA: Code Division Multiple Access)

1xEV-DO

1X

7.

6

1xEV-DO

(Hard Handoff)

(P

ower Control)

(Soft Handoff)

1xEV-DO

1X

8.

7

1xEV-DO

(Pilot)

MAC(Medium Access Control)

(Broadcast Message)

1xEV-DO

(Direct Message)

1xEV-DO

(Traffi

c)

1xEV-DO

1X

9.

8

가

1xEV-DO

(Coherent Detect

ion)

1xEV-DO

1X

10.

8

가 가

1xEV-DO

1

X

11.

1
1xEV-DO

가 , 1xEV-DO 1X

12.

가 CDMA 2000 1x EV-DO(Evolution Data Optimized) ('1xEV-DO
) CDMA 2000 1X (, '1X) ,

- (a) 가 1X 1xEV-DO ;
- (b) 가 1X 1xEV-DO (Du
- al Mornitoring)
- (c) 가 1xEV-DO 1xEV-DO ;
- (d) 1xEV-DO ;
- (e) 가 1xEV-DO 1X 1X
- (f) 1xEV-DO ;
- (g) 1xEV-DO 1X

13.

12 (a) 1X 1xEV-DO
1xEV-DO 1X

14.

12 (c) 1xEV-DO 1X
1X 가 1xEV-DO 1xEV-DO

15.

12 (e) 1X MSM(Mobile Station Modem)
) 1xEV-DO (Searcher) 1X

16.

12 (f) 1X
1xEV-DO 가 MIN ESN

17.

12 (c) 1xEV-DO 1X (Connection) (Session)
1xEV-DO 1X

18.

12 (a) (Idle State) 1X 1X
1X 1xEV-DO 1xEV-DO 가 1xEV-DO
1X 가 1X 1xEV-DO

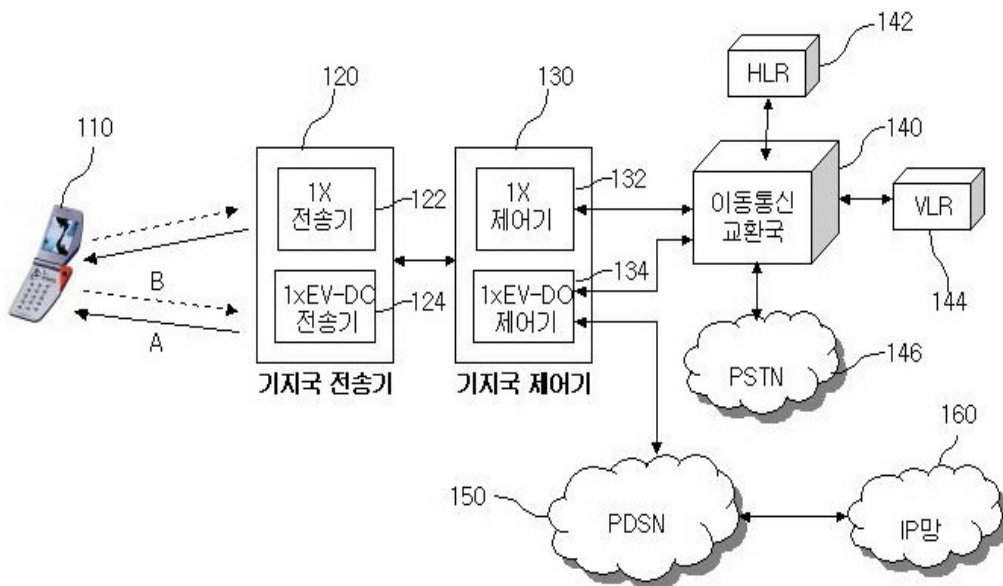
19.

17 1xEV-DO UATI(Unicast Access Terminal Identifier) 1xEV-DO
UATI

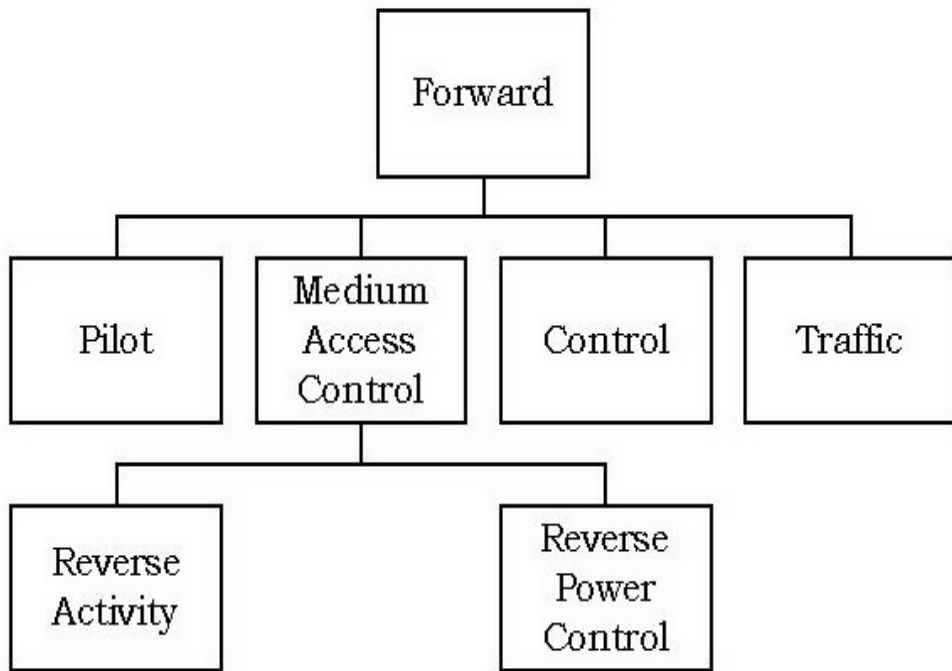
UATI ID , 1xEV-DO
 1xEV-DO (Parameter)가 1xEV-DO 1X
 20. 12 1xEV-DO (Foward Link)
 (TDMA: Time Division Multiple Access) 1xEV-DO (Reverse Link)
 (CDMA: Code Division Multiple Access) 1xEV-DO 1X
 21. 20 1xEV-DO (Pilot) ;
 MAC(Medium Access Control) ; (Broadcast Message)
 (Direct Message) ;
 1xEV-DO (Traffi
 c) 1xEV-DO 1X
 22. 21 가 1xEV-DO (Coherent Detection)
 1xEV-DO 1X
 23. 21 가 가 1xEV-DO
 1X

1

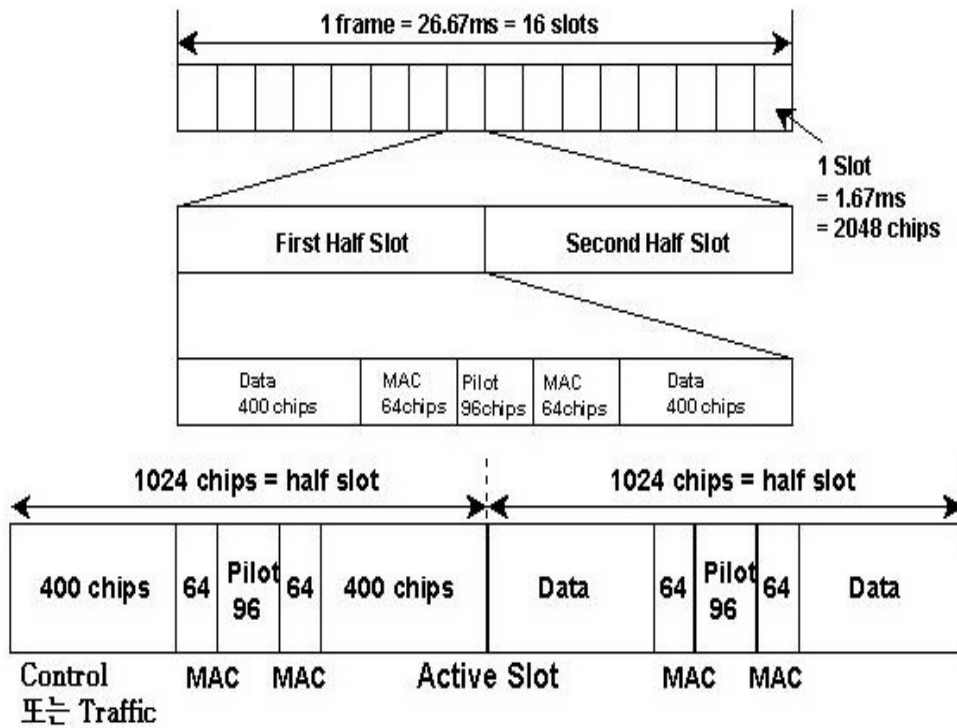
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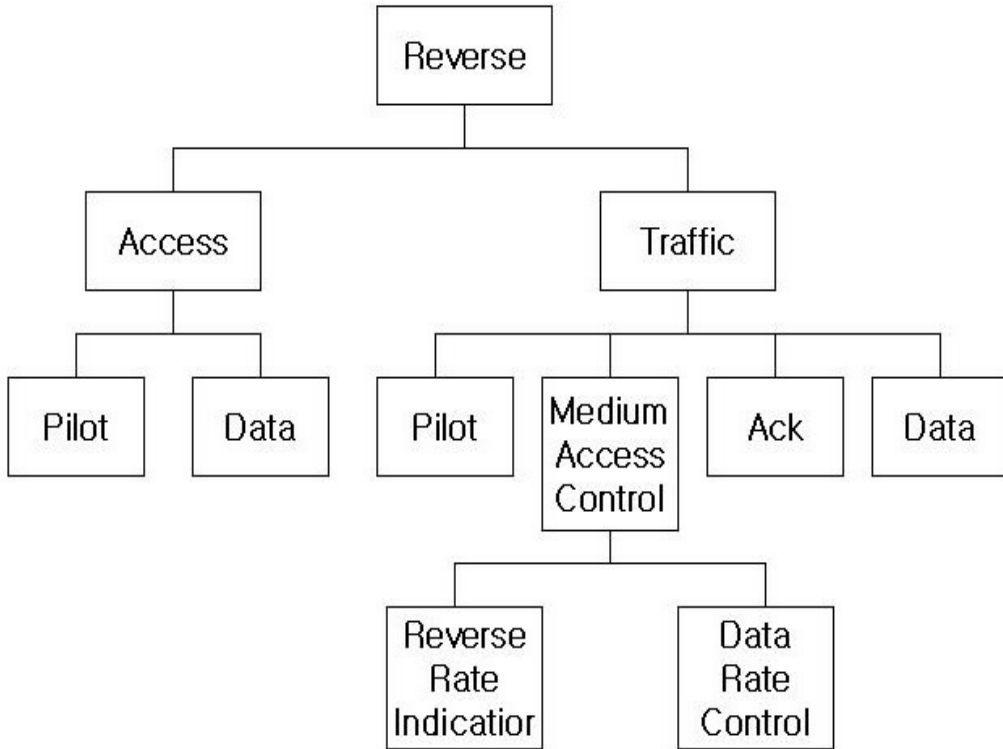
2a



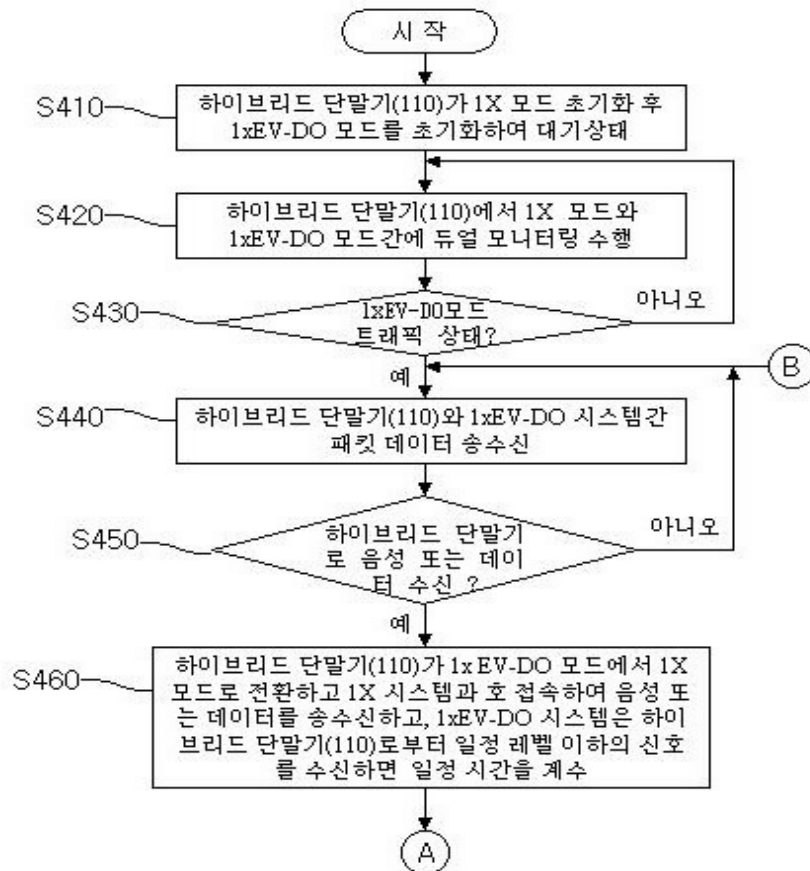
2b



3



4a



4b

