

(19) (KR)
(12) (A)

(51) 。 Int. Cl.7
H04B 7/26

(11)
(43)

10-2004-0061790
2004 07 07

(21) 10-2002-0088088
(22) 2002 12 31

(71) 99

(72) 739 APT212-302

2 247 104

3 93-137 2

() APT101-1308

422 APT102 601

(74)

:

(54) E V - D O

EV-DO 가 EV-DO 가 ,
EV-DO EV-DO
EV-DO EV-DO (TCA) , EV-DO (L2Ack)가 , EV-DO
EV-DO (TCA) (L2Ack)가 , EV-DO
EV-DO (RTC) (Traffic Channel Completion) 가 , EV-DO
EV-DO 가
EV-DO 가 EV-DO 가

1

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

1 EV-DO

2 EV-DO

3 EV-DO

4 EV-DO

< >

110 : (HAT) 120 :

122 : 1X (BTS) 124 : EV-DO (ANTS)

130 : 132 : 1X (BSC)

134 : EV-DO (ANC) 140 : (MSC)

142 : HLR 144 : VLR

146 : PSTN 148 : IP

150 : PDSN

EV-DO 가 EV-DO 가 , EV-DO

EV-DO

/ 1 AMPS(Advanced Mobile Phone Systems) , 2 (Celluar)
(PCS : Personal Communication Service) , 3

IMT-2000(International Mobile Telecommunication-2000)

rojects)2
 m) HDR(High Data Rate)
 . CDMA 2000 1x EV-D0(Data Optimized)

IMT-2000
 IMT-2000
 '1x EV(Evolution)'
 CDMA 2000 1X

3GPP(3rd Generation Partnership P
 (Qualco
 CDMA 2000 1X

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

1X (Circuit) (Packet) 307.2 Kbps
 , EV-D0 , EV-D0 2.4 Mbps

EV-DO 1X
 EV-DO 1X
 가 EV-DO (Channel Card) 1X
 1X EV-DO 가

EV-DO EV-DO 1X 가

EV-DO 가 가

(Hand-off) 가

, EV-DO , EV-DO

EV-DO 가 (Call Drop) EV-DO , EV-DO

가 EV-DO

EV-DO , EV-DO

DO , EV-DO 1X EV-DO EV-

EV-DO (Route Update) EV-DO EV-DO

(HAT: Hybrid Access Terminal); 1X (BTS); 1X
 1X (BSC); 1X

(MSC); EV-DO

EV-DO ; EV-DO , EV-DO

update) (Traffic_Channel_Assignment) (Rout_U

EV-DO (ANC); 가 EV-DO EV-DO (PDSN)

(a) EV-DO EV-DO EV-DO ; (b)

; (c) EV-DO EV-DO (Route Update) ; (d)

EV-DO 가 ; (e)

가 가 가

1 EV-DO

1 (100) EV-DO 1X (110), 1X (122), 1X (132),

(MSC: Mobile Switching Center)(140) 1X

(110), EV-DO() (ANTS: Access Network Transceiver Subsystem)(124) EV-DO(

) (ANC: Access Network Controller)(134), (PDSN: Packet Data Serving

Node, 'PDSN')(150) IP(Internet Protocol) (160) EV-DO

(110) 1X , EV-DO (110)

가 1X EV-DO , EV-DO 가 1X

1X EV-DO (110) (

Baseband Modem) MSM(Mobile Station Modem) (110)

MSM (Searcher) (Tracking)

(110)가 EV-DO 1X , 1X EV-DO MSM

EV-DO

(110) EV-DO EV-DO , EV-DO

(AN) (110) (Foward Link) TDMA(Ti

me Division Multiple Access:) (AN) (Reverse Link)

가 (110) EV-DO (CDMA)

(110) EV-DO EV-DO 1X 가 E

, 1X V-DO

(110) EV-DO (124) 가

EV-DO (124)

1X (122) EV-DO (124) (BTS: Base station Transceiver Subsystem)(120) , (12
 2) (Air Interface) , EV-DO (124) . , 1X (12)

1X (132) EV-DO (134) (BSC: Base Station Controller)(130) ((132))
 120) , , EV-DO (134) 1X (132) E
 1X V-DO (130) PDSN(150) .

, EV-DO (134) EV-DO (124) (110)
 , (110) (Rout_Update Message)
 (Traffic_Channel_Assignment, 'TCA') 가 , (110)
 가 , TCA 가 .

(140) 1X (132) (PSTN: Public Swi
 tched Telephone Network, 'PSTN')(146) , (110)

, (140)
 (Home Location Register, 'HLR')(132) ,
 가 (Visitor Location Register, 'VLR')(134)

(Internet Protocol Packet) IP EV-DO TCP/IP PDSN(150) , IP
 (110) (160) . , IP (160)

MPEG , TDM , (110) , (110)
 , IP PDSN(150) . CDMA IP

EV-DO 가 가 EV-DO
 , 가 (Power Control)
 (Hard Handoff) 가 .
 (Softer) (Soft Handoff)가 가 .

2a EV-DO (124) (110) .

2a (Traffic) , (Pilot) , MAC(Medium Access Control) , ,
 , EV-DO (110)
 , 가 가 (110)
 (110)가 EV-DO (Coherent Detection)

MAC control) , RA , RA(Reverse Activity) RPC(Reverse Power C
 . , RPC (110)가 (110)

EV-DO (110) (Broadcast Message)
 EV-DO (110) (Direct Message) , .

, 2b , 1 (Fr
 ame) 16 (Time Slot) , 1 26.67 ms
 (First Half Slot) 1024 (Chips) (Second Half Slot) 1024 (Chips) 2048 (

Chips) , 1.67 ms .

ips), (MAC) 64 (Chips), 400 (Chips) , MAC 64 (Chips), 96 (Chips)

3 (110) EV-DO (124)

3 1X (Access) , M

AC (Ack) , MAC RRI(Reverse Rate Indicator)

DRC(Data Rate Control)

Message) (Origination) (Connection_Request Message) (Registration) (Route_Update
(Stability) 9.6 kbps

2a (110)가 EV-DO (Coherent Detection) (110)가 EV-DO

(110)가 EV-DO

(110)가 EV-DO

가 . MAC RRI , RRI (110)가 EV-DO (110)가 (110)

, DRC 가 (110)가 EV-DO (124) (110) DRC Cover (110) DRC Cover C/I(Carrier to Interference)

rence) (110) DRC Cover EV-DO (124) (110)가 (110) DRC Cover C/I(Carrier to Interference)

(110)가 가 (Interference) 1/2

가 (110)가

26.66 ms 가 , DRC (Wals

h Code)

4 EV-DO

(110) 1X (Initialization) , 1X 1X (132) 1X (122)

EV-DO (134) EV-DO (132) , 1X EV-DO

1X EV-DO (110) 1X EV-DO

, 1X 5.12

(110) 1X EV-DO EV-DO (110) 가 EV-DO (110) EV-DO (124)

24) (110) (110) 가 EV-DO (110) 가 EV-DO (124)

O (110)가 EV-DO (124)

List) S440 가 (S480). S460 , EV-DO EV-DO (124) (110) (110) TCC (Neighbor (Neighbor

가 , EV-DO 가 EV-DO E

V-DO .

가 , 가

가

가 EV-DO 가

EV-DO 가

가

(57)

1.

EV-DO ,

EV-DO 1X EV-DO (Route Update) EV-DO

EV-DO (HAT: Hybrid Access Terminal);

1X (BTS);

1X 1X (BSC);

1X

(MSC);

EV-DO ;

EV-DO (Rout_Update)

(Traffic_Channel_Assignment) , EV-DO

(ANC); 가 , EV-DO

EV-DO (PDSN) EV-DO

EV-DO

2.

1 ,
 EV-DO (TCA) , (Reverse_Traffic_Channel) (Acknowledged)
 가 ge)

EV-DO

3.

1 ,
 EV-DO (TCA) (TCA) , EV-DO (L2Ack)가 , EV-DO
 EV-DO (L2Ack)가
 EV-DO (RTC) (Traffic Channel Completion) 가 ,
 EV-DO EV-DO
 EV-DO

4.

1 ,
 EV-DO EV-DO 1X , 1X EV-D
 O EV-DO 가

5.

1 ,
 EV-DO (Foward Link)
 (TDMA: Time Division Multiple Access) ,
 EV-DO (Reverse Link) 가
 (CDMA: Code Division Multiple Access)
 EV-DO

6.

- (a) EV-DO ;
- (b) EV-DO (Route Update) ;
- (c) EV-DO ;
- (d) EV-DO 가 ;
- (e) 가 , EV-DO
 EV-DO

7.

6 , (a)
 DO 가 1X (Idle State) 1X EV-DO EV-
 toring) ; 가 1X EV-DO (Dual Morni
 (Session) 가 EV-DO EV-DO (Connection)
 EV-DO .

8.

6 , (c)
 EV-DO (L2Ack)
 verse_Traffic_Channel) 가 (Acknowledge) (TCA) , (Re
 EV-DO .

9.

6 , (d)
 EV-DO (L2Ack) , (TCA)
 TC) EV-DO (L2Ack) (Traffic Channel Completion) (R
 EV-DO .

10.

6 , (e)
 EV-DO (TCA) EV-DO (L2Ack)가 , EV-DO
 (TCA)
 EV-DO EV-DO (L2Ack)가
 EV-DO EV-DO (RTC) (Traffic Channel Completion) 가 ,
 , EV-DO
 EV-DO .

11.

6 , (a) EV-DO ,

1X
EV-DO

EV-DO

1X

가

12.

6 (a)

EV-DO
(TDMA: Time Division Multiple Access)

(Foward Link)

EV-DO
(CDMA: Code Division Multiple Access)

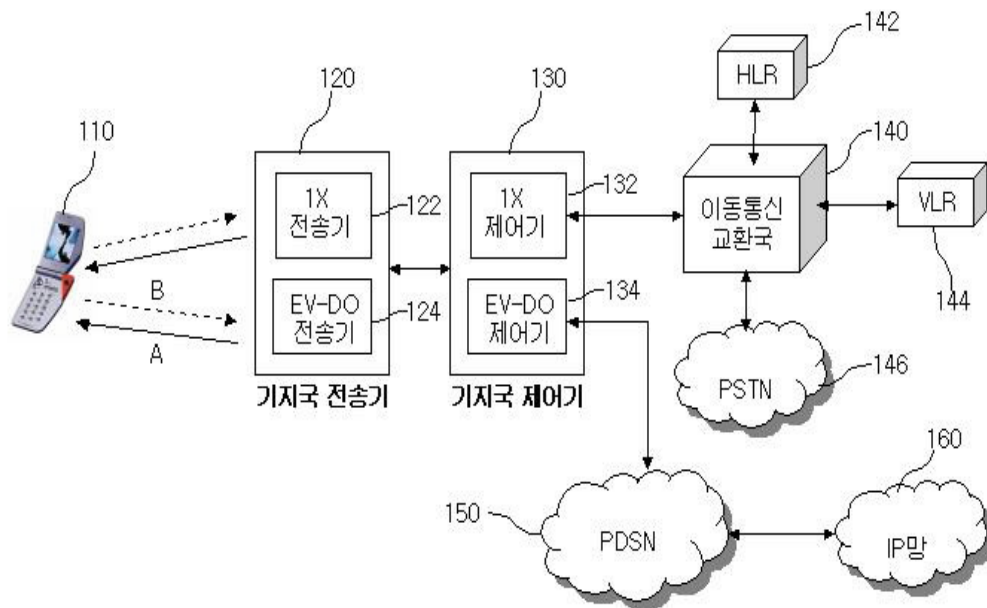
(Reverse Link)

가

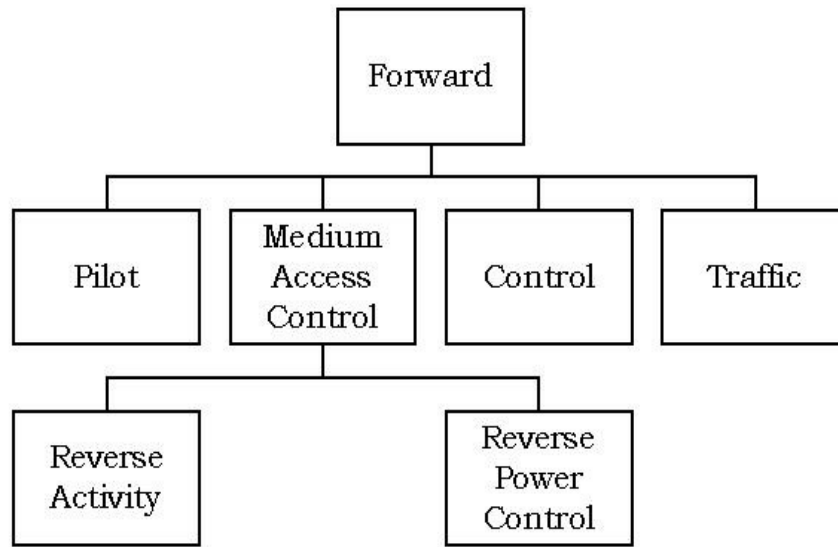
EV-DO

1

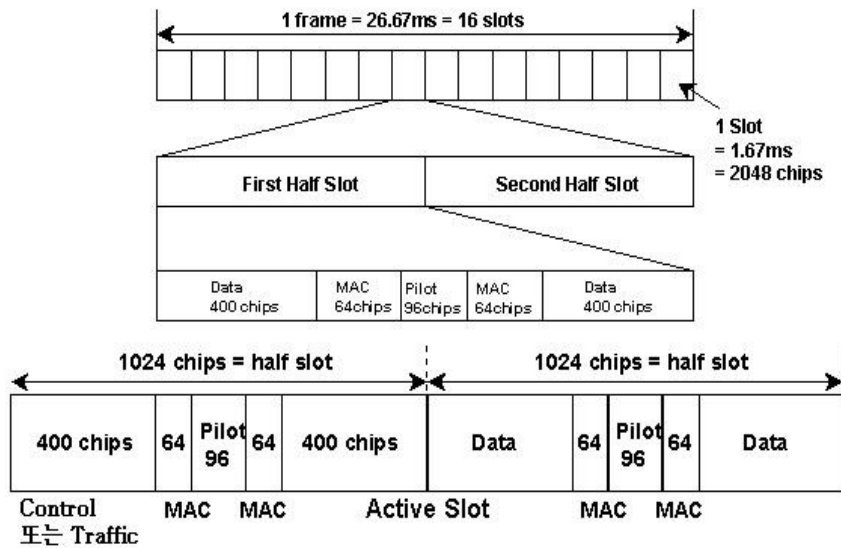
100



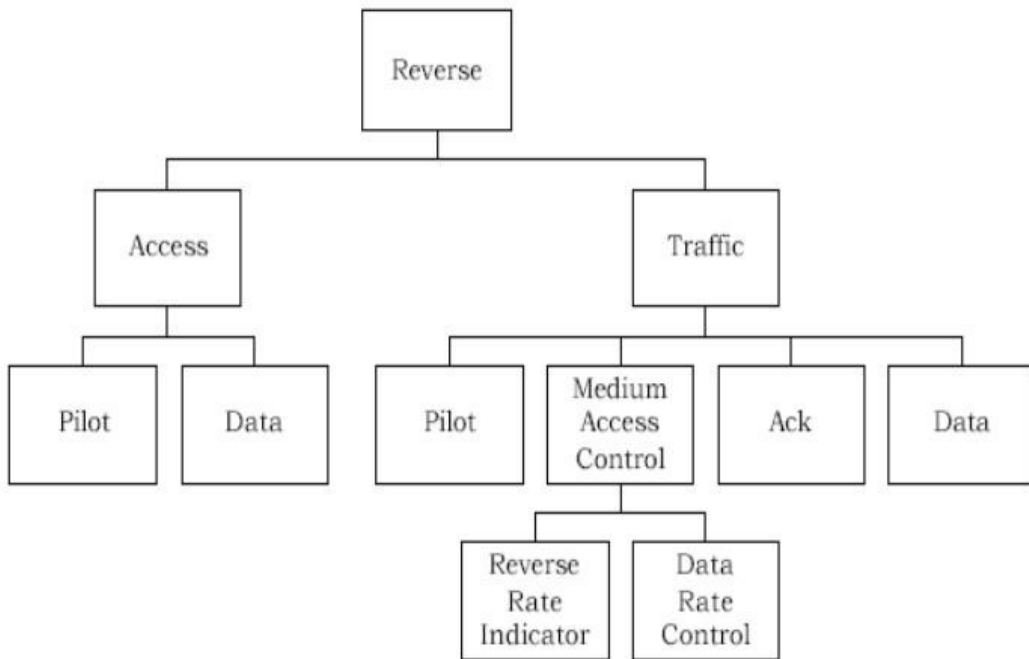
2a



2b



3



4

