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1 679

(72)

601 1003

(74)

:

(54)

가 가 가 (MCCH) (MCH) (MTCH) (MCH) (MCH)

(MCCH) (MCCH) (MCH) (MTCH) (MCH)

1

(MCCH), (MTCH), (MCH),

1 .

2 (Scheduling) (Multiplexing)

(MAC)

3 .

4 MAC

5 .

6 .

7 (UE)

8 (UTRAN)

9 (UE)

10 (UE)

11 .

* *

1 : UE - NAS 2 : UE - AS

3 : UTRAN - AS 4 : UTRAN - NAS

가

(Multicast) , (LAN) (Internet)

가 (Bucket

Relay)

(Singlecast Service)

(Unicast) , (Group - call) (Broadcast)

(General Packet Radio Service ; , GPRS)
, GPRS , (Grob
al System for Mobile Communications ; , GSM)

GPRS

GPRS (single source entity)가
가 (Point to Multipoint ; , PTM)
가 가
가 (Multicast Group) (Grou
p Identifier)가

GPRS , (Authentication) (ciphering) ,
가 가

, GPRS (ETSI : European Telec
ommunications Standard Institute) (Universal M
obile Telecommunications System ; , UMTS)
가 UMTS , (Authentication)
(ciphering)가 가 , 가 가

가 , 가 가

가 UMTS

ervice)가 (Distribution Se

가 ,
(HiFi Audio Broadcasting)가

(Remote Downloading)가

ational Mobile Group Identity ; , IMG I) (Intern

, IMG I 가 , IMG I GPRS

IMG I GPRS 가 , PTM 가
IMG I PTM

IMGI 가 (Authentication) .

(User Entity ; , UE)가 (Idle mode)

(, UTRAN)

가

PTM , (Unidirectional), 가

(MCH : Multicast Channel)

(MCH) (Logical Channe

I)

Channel) (mapping) (DCH : Dedicated Channel) (FACH : Forward Access

가 (MCH)

(Dedicated Channel) (Idle mode)

, (DCH) (Connected mode) , (FAC

H) 가

, ,

, ,

, ,

가 가

(MCH) (MTCH) ,

(MCH) (MCH)

(MCCH) , (MCCH)

, 가

가

(Multicast Traffic Channel ; , MTCH) (Logical c
 hannel) (Multicast Channel ; , MCH)
 (Multicast Control Channel ; , MCCH) (Transport channel)
 (Physical Multicast Channel ; , PMCH) (Physical channel)

MTCH가 (Logical channel) , GPRS MCH MTCH가

1

cription) PTM MTCH (Unidirectional), (MCH)
 가 (Subs
 가
 IMGI가 가

(Transport channel)

가 가

가 가

가 가

가

가

, UE가

가

(Sleep mode)

가

가

가

(Idle mode)

(Sleep mode)

MCCH가

(Common Radio Link)

(Higher Layer)

(reliable/unreliable data transfer) 가

가

가

MCH 가 , MCH
 , 가 MCH

MTCH (Bearer Capability)
 가 , MTCH (Scheduling)
 (Multiplexing)

MTCH (Scheduling) (Multiplexing) MAC 2
 duling) (Scheduling) (Multiplexing) (Scheduling)

MCCH (Sleep mode)
 , MCCH (Sleep mode)

MCCH IMGI
 , MCCH MCH 가
 , UE MCCH MCH

MCCH 가 , 가

MCCH
 , MCCH , 가 가
 , 가 가 가
 , 가 가 (Sleep mode)

가
 (Common Radio Link) , 가 가 MCCH가
 , IMGI

가
 (Broadcast Channel ; , BCH)
 , MCCH

MCH MCCH
 MCCH MCH MCH 가
 , MCH (Multi - code Mechanism) , MCH
 가

MCH 가 , MCCH MCH

MCH

BCH

가 , UE 가

가

UE BCH

, MCCH

MCCH MCCH MCCH 가 MCCH , 가

, MCH 가 (Multi - code) 가

UE가

, UE IMGI BCH , UE UTRAN MCCH

가 가 , MCCH IMGI

가 , 가 MC

MCH

MCCH MCH

, MCCH MCH

3

3

MCH (Physical Multicast Channel ; , PMCH)

가

가 가 가

MCH
PMCH

MCCH
(Pilot bit)가

MCH
가

PMCH
(Multi - code)

MCCH
(Physical Multicast Control Channel ; , PM
, PMCH)
CCH)
가

PMCCH

TFCI
가

H
CH

PMCCH
, TFCI
PM

가
(Multicast Paging Cycle)

가 , TFCI PMCCH

3 TFCI 가 PMCH ,

MCH , MCH
, MCCH UE

MCH

4 MAC

MAC (SAP : Service Access Point)

5

5 UE , UE (MT_NULL), (M
T_AWAKE), (MT_SLEEP)

, (MT_NULL) 가 , (MT_NULL) (MT_AWAKE)

(MT_AWAKE) MCCH MCH UE가 , MCCH MCH
가 , (MT_SLEEP)

(MT_SLEEP) MCCH MCH

(Access Stratum ; , AS) (Non - Access Stratum ; , NAS)
가

NAS AS NAS , NAS AS
AS

NAS AS

ation) (ciphering) , 가 가 , (Higher Layer) (Authentic
 (RRC : Radio Resource Control Layer)
 (Scheduling) ,
 (Medium Access Control Layer ; , MAC) (Mult
 iplexing) (Demultiplexing) ,
 (Physical Layer) , (multi - code) 가
 , 가
 , (UE)가
 6
 6 , UE가 , UE가
 UE (Ciphering Key)
 UE - NAS(1) UTRAN 가 , UE - AS(2) UTRAN 가
 UE - AS(2) (Dedicated Control Channel : DCCH) UTRAN
 UE - AS(2) IMGI UTRAN
 UTRAN 가 (Group member) (Authentication) , UTRAN
 가 (Random number)
 UE - AS(2)가 UTRAN , UTRAN
 UE - AS(2) (Ciphering Key)
 DCCH
 7 (UE)
 7 UE - NAS(1) UE - AS(2) , UE UTR
 AN

(2) UE - NAS(1) UE - AS(2) (RRC) , UE - AS
 UE - NAS(1) . UE - NAS(1) IMGI UE - AS(2)

UE - AS(2) UTRAN

8 (UTRAN)

8 UTRAN - AS(3)가 UE - AS(2) UTRAN - NAS(4)

UTRAN - NAS(4) UTRAN - AS(3) , IMGI, UE

, UTRAN - NAS(4) , UTRAN - AS(3)

UTRAN - NAS(4) UTRAN - AS(3) (RRC)

UTRAN IMGI, UE
 UE - AS , UE - AS(2) MTCH

9 (UE)

UE - AS(2) MTCH 가 UE - NAS(1)

10 (UE)

NAS(1) IMGI UE - NAS(1)가 UE - AS(2) UE -

UE - NAS(1) UE - AS(2) (RRC)

11

MCH PMCH , MCCH
 PMCCCH (Secondary CCPCH)

MTCH

ing) , (Schedul

MCCH 가 MCH

, 가 가 가 . ,

(57)

1.

가 가 가 (MTCH) ; ,

(MCH) (MCCH) (MCH) ;

(MCH) (MCCH)

2.

1 , 가 (MCCH) , 가 가
가 (IMGI)

3.

2 , (IMGI) (MCCH) (MCH)

4.

1 , , (MCH)
가

5.

1 , (MCH)
TFCI 가

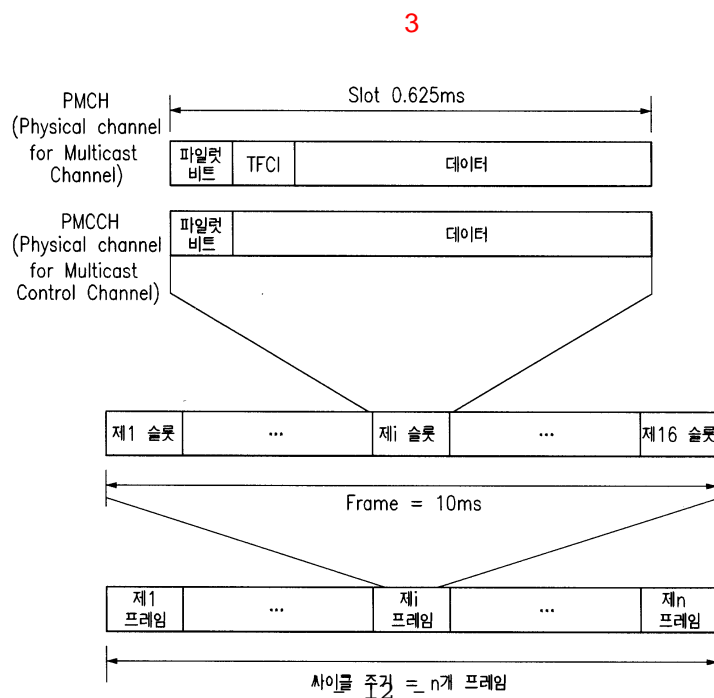
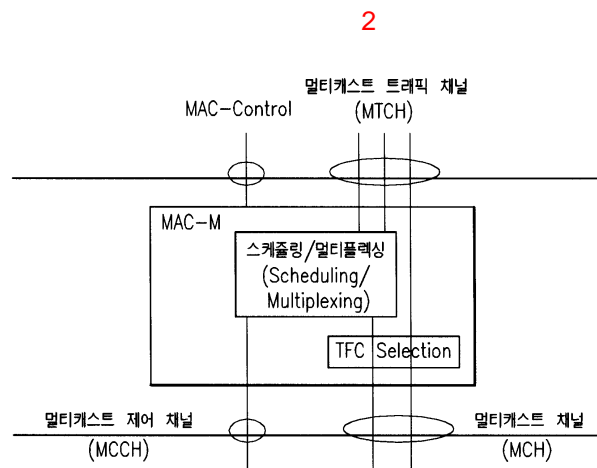
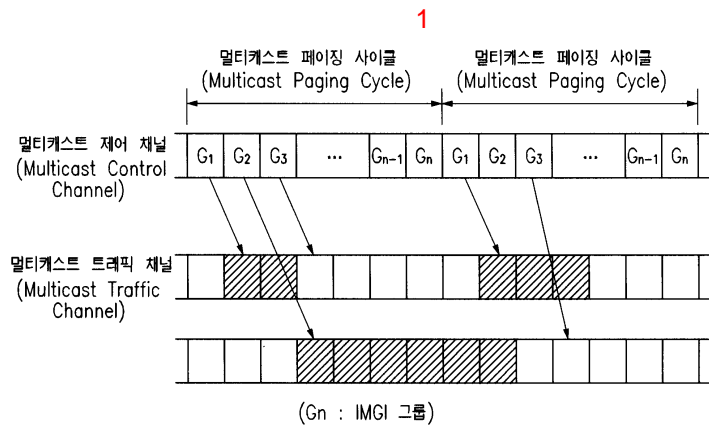
6.

1 , ,
TFCI 가

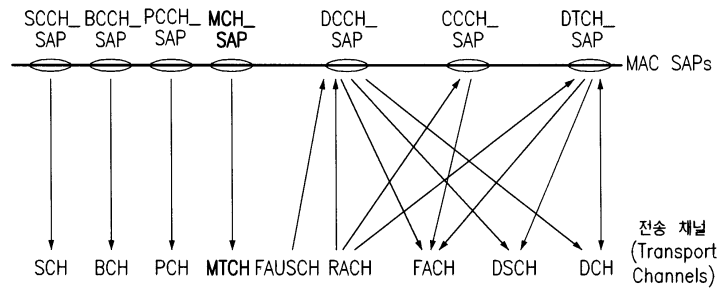
7.

가 , 가

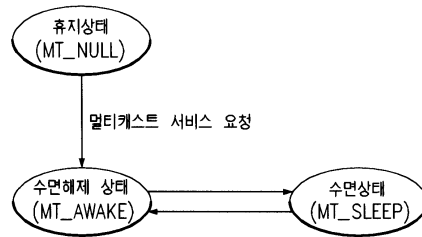
8.



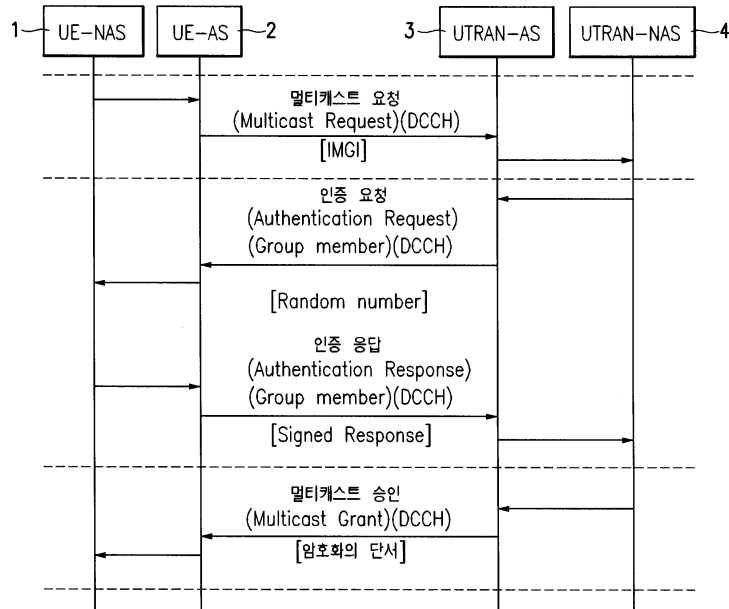
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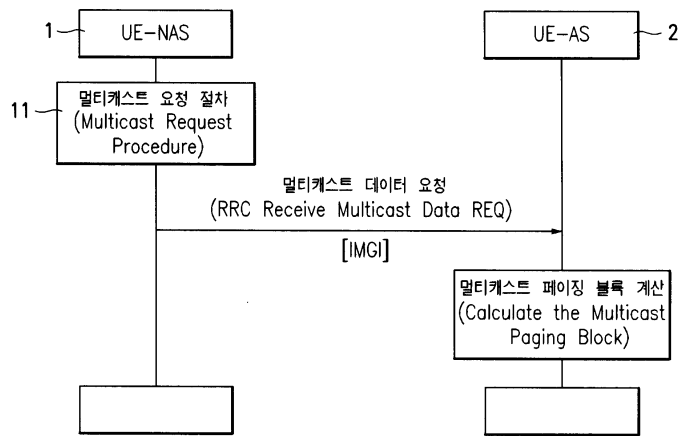
5



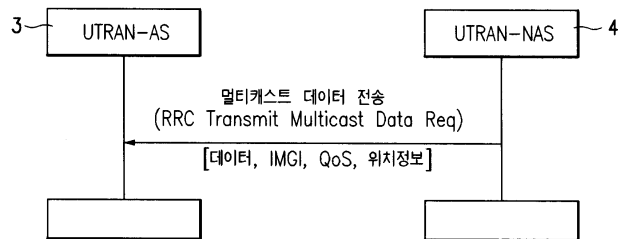
6



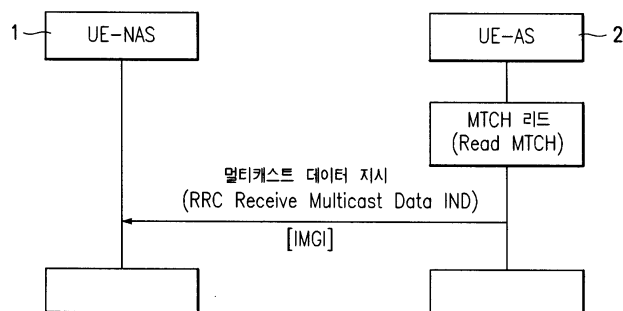
7



8



9



10

