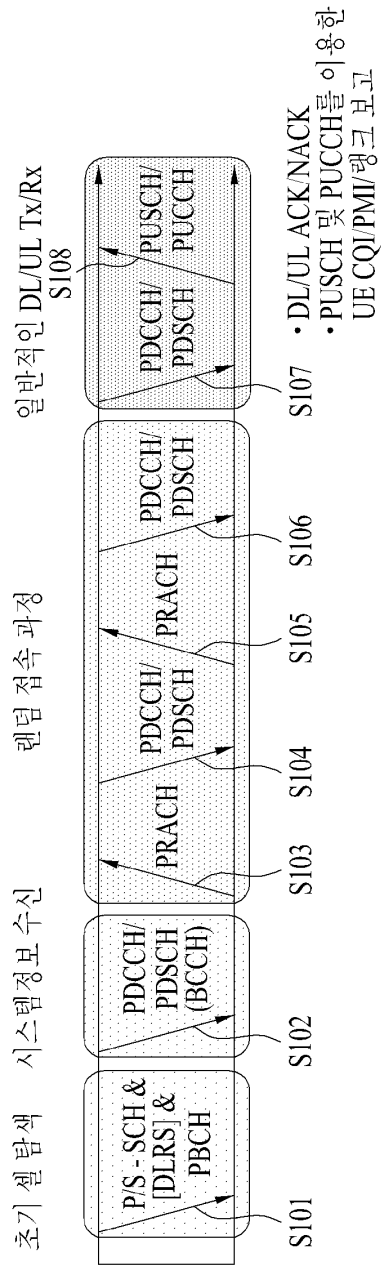
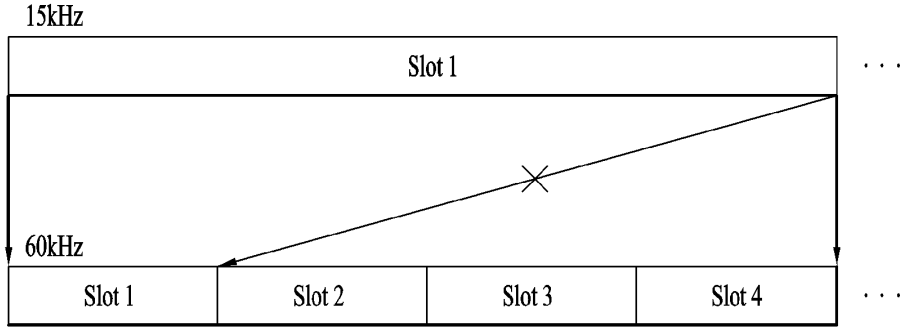
[도1]


초기 셀 탐색
시스템정보 수신
랜덤 접속 과정
일반적인 DL/UL Tx/Rx
P/S - SCH & [DLRS] & PBCH
PDCCH/ PDSCH (BCCH)
PRACH
PDCCH/ PDSCH
PRACH
PDCCH/ PDSCH
PDCCH/ PDSCH
PUSCH/ PUCCH
S101
S102
S103
S104
S105
S106
S107
S108
• DL/UL ACK/NACK
• PUSCH 및 PUCCH를 이용한 UE CQI/PMI/랭크 보고

[도2]



[도3]

Entry index	Slot format
1	SF1-slot1 / SF1-slot2 / SF2-slot1 / SF2-slot2
2	SF1-slot1 / SF1-slot2 / SF2-slot1 / SF2-slot2 / SF3-slot1 / SF3-slot2
3	SF1-slot1 / SF1-slot2 / SF1-slot3 / SF1-slot4 / SF2-slot1 / SF2-slot2
4	SF1-slot1 / SF1-slot2 / SF2-slot1 / SF2-slot2 / SF2-slot3 / SF2-slot4 / SF3-slot1
. . .	. . .

[도4]

Entry index	Slot format
1	SF1-slot1 / SF1-slot2 / SF2-slot1
2	SF1-slot1 / SF2-slot1 / SF3-slot1 / SF1-slot2 / SF2-slot2 / SF3-slot2
3	SF1-slot1 / SF1-slot2 / SF2-slot1 / SF1-slot3 / SF1-slot4 / SF2-slot2
4	SF1-slot1 / SF1-slot2 / SF2-slot1 / SF2-slot2 / SF2-slot3 / SF2-slot4 / SF3-slot1
. . .	. . .

[도5]

Entry index	Slot format for band1	Slot format for band2
1	SF1-slot1 / SF1-slot2	SF2-slot1 / SF2-slot2
2	SF1-slot1 / SF1-slot2 / SF1-slot3 / SF1-slot4	SF2-slot1 / SF2-slot2
. . .	. . .	. . .

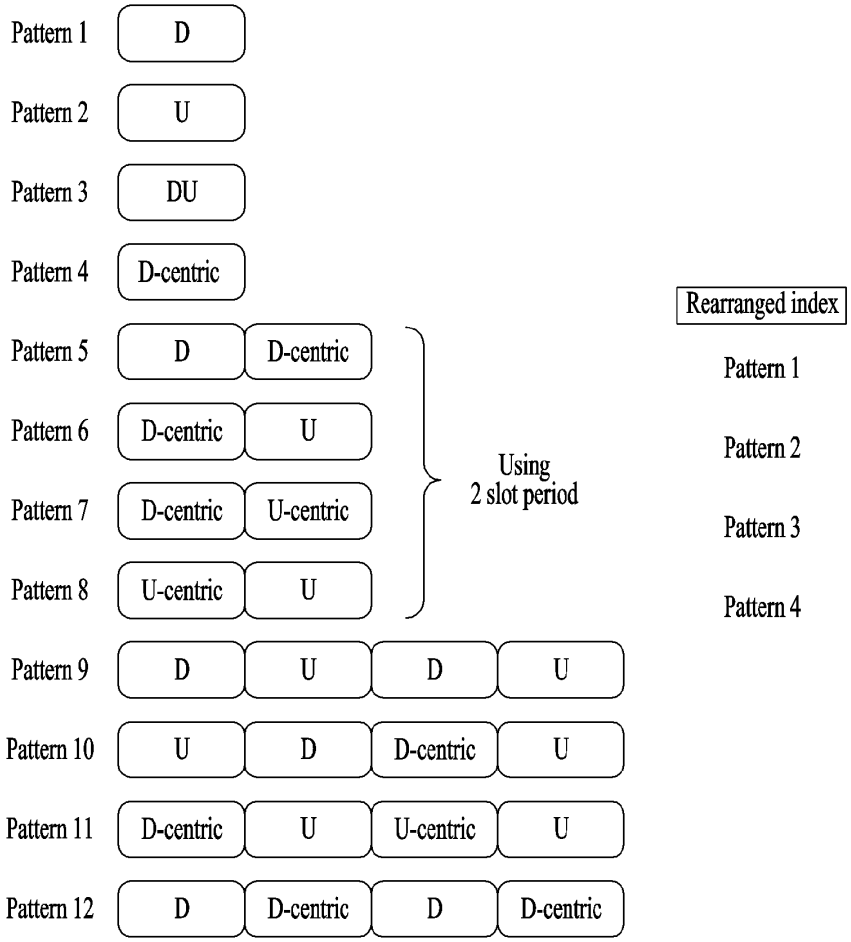
[도6]

Entry index	Slot format for band1	Slot format for band2	Slot format for band3
1	SF1-slot1 SF1-slot2	SF2-slot1 SF2-slot2	SF3-slot1 SF3-slot2
2	SF1-slot1 SF1-slot2	SF2-slot1 SF2-slot2 SF2-slot3 SF2-slot4	SF3-slot1
...	...	...	...

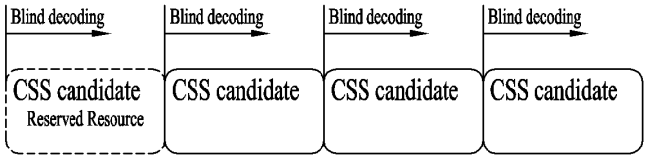
[도7]

Entry index	Band 1			Band 2	
	15kHz	30kHz	60kHz	15kHz	30kHz
1	SF1-slot1	SF1-slot1 SF1-slot2	SF1-slot1 SF1-slot2 SF1-slot3 SF1-slot4	SF2-slot1	SF2-slot1 SF2-slot2
2	SF1-slot1 SF1-slot1	SF1-slot1 SF1-slot2 SF1-slot3 SF1-slot4	SF1-slot1 SF1-slot2 SF1-slot3 SF1-slot4 SF1-slot5 SF1-slot6 SF1-slot7 SF1-slot8	SF2-slot1 SF2-slot1	SF2-slot1 SF2-slot2 SF2-slot3 SF2-slot4
3					
...					

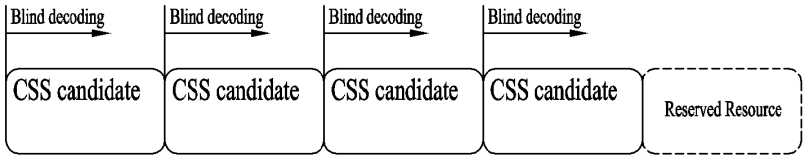
[도8]


Pattern 1
D
Pattern 2
U
Pattern 3
DU
Pattern 4
D-centric
Pattern 5
D
D-centric
Pattern 6
D-centric
U
Pattern 7
D-centric
U-centric
Pattern 8
U-centric
U
Using
2 slot period
Pattern 9
D
U
D
U
Pattern 10
U
D
D-centric
U
Pattern 11
D-centric
U
U-centric
U
Pattern 12
D
D-centric
D
D-centric
Rearranged index
Pattern 1
Pattern 2
Pattern 3
Pattern 4

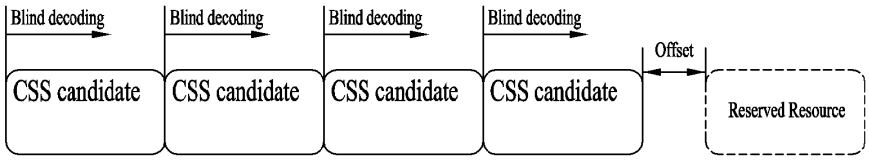
[도9]


Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
Reserved Resource
CSS candidate
CSS candidate
CSS candidate

(a)

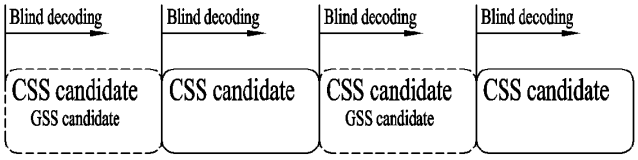

Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
CSS candidate
CSS candidate
CSS candidate
Reserved Resource

(b)

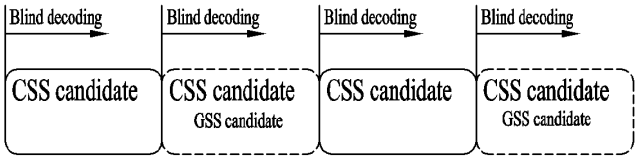

Blind decoding
Blind decoding
Blind decoding
Blind decoding
Offset
CSS candidate
CSS candidate
CSS candidate
CSS candidate
Reserved Resource

(c)

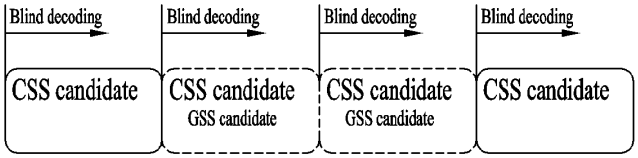
[도10]


Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
GSS candidate
CSS candidate
CSS candidate
GSS candidate
CSS candidate

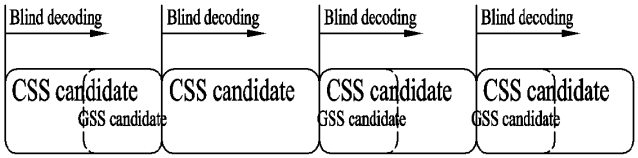
(a)


Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
CSS candidate
GSS candidate
CSS candidate
CSS candidate
GSS candidate

(b)

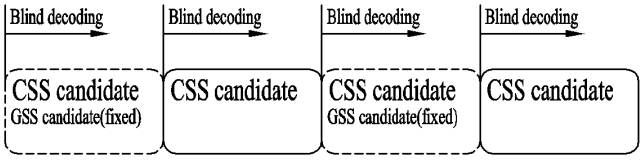

Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
CSS candidate
GSS candidate
CSS candidate
GSS candidate
CSS candidate

(c)

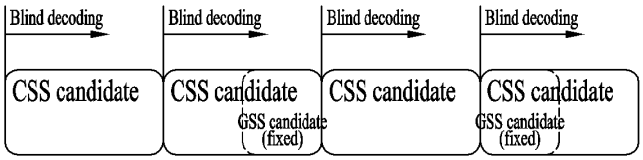

Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
GSS candidate
CSS candidate
GSS candidate
CSS candidate
GSS candidate
CSS candidate

(d)

[도11]

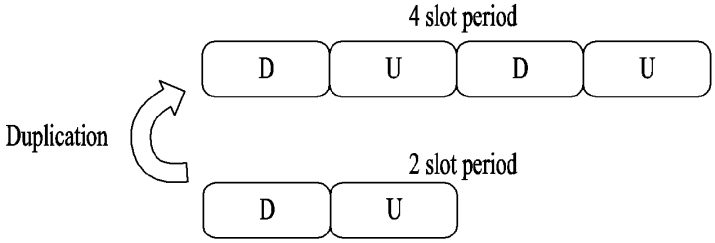

Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
GSS candidate(fixed)
CSS candidate
CSS candidate
GSS candidate(fixed)
CSS candidate

(a)

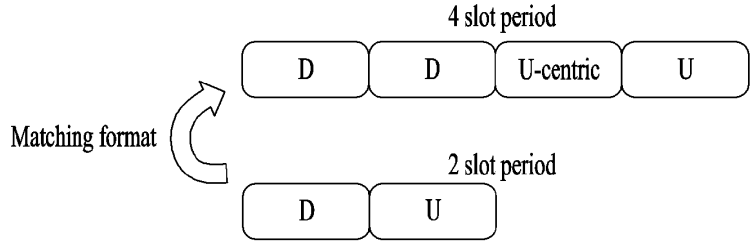

Blind decoding
Blind decoding
Blind decoding
Blind decoding
CSS candidate
CSS candidate
GSS candidate (fixed)
CSS candidate
CSS candidate
GSS candidate (fixed)

(b)

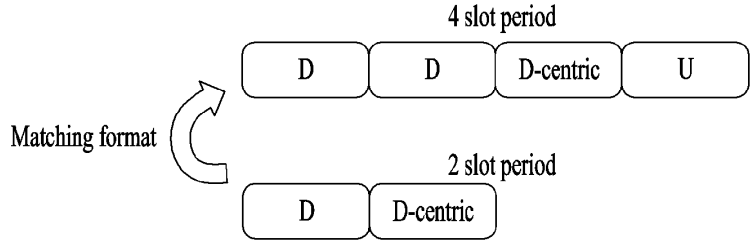
[도12]


4 slot period
D
U
D
U
Duplication
2 slot period
D
U

[도13]

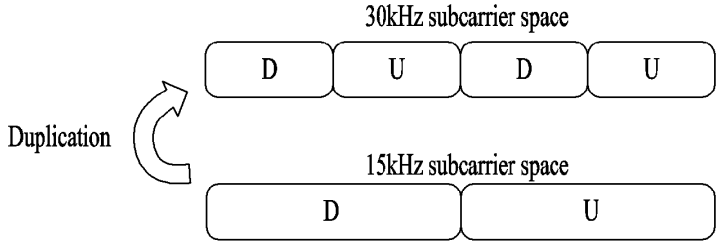

4 slot period
D
D
U-centric
U
Matching format
2 slot period
D
U

(a)

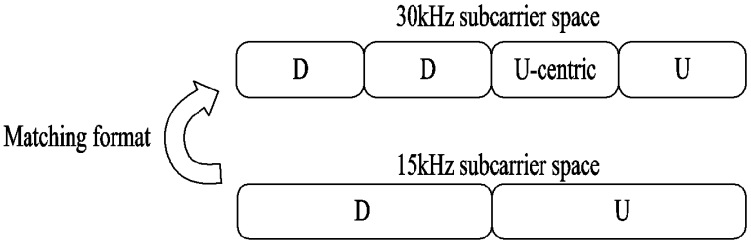

4 slot period
D
D
D-centric
U
Matching format
2 slot period
D
D-centric

(b)

[도14]

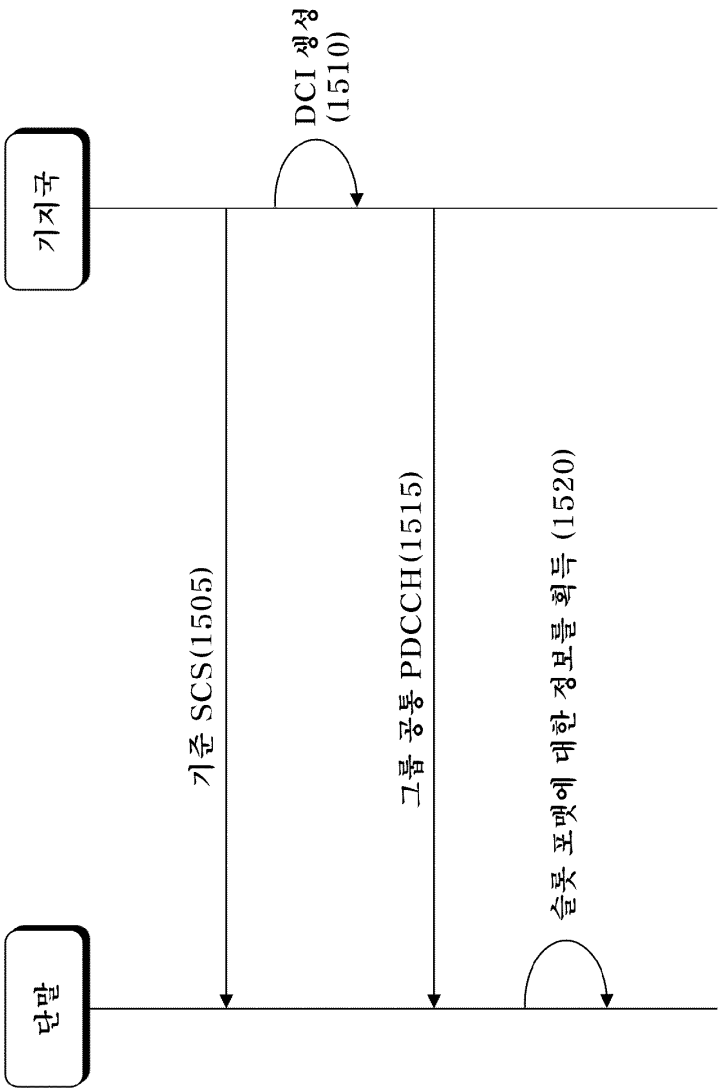

30kHz subcarrier space
D
U
D
U
Duplication
15kHz subcarrier space
D
U

(a)

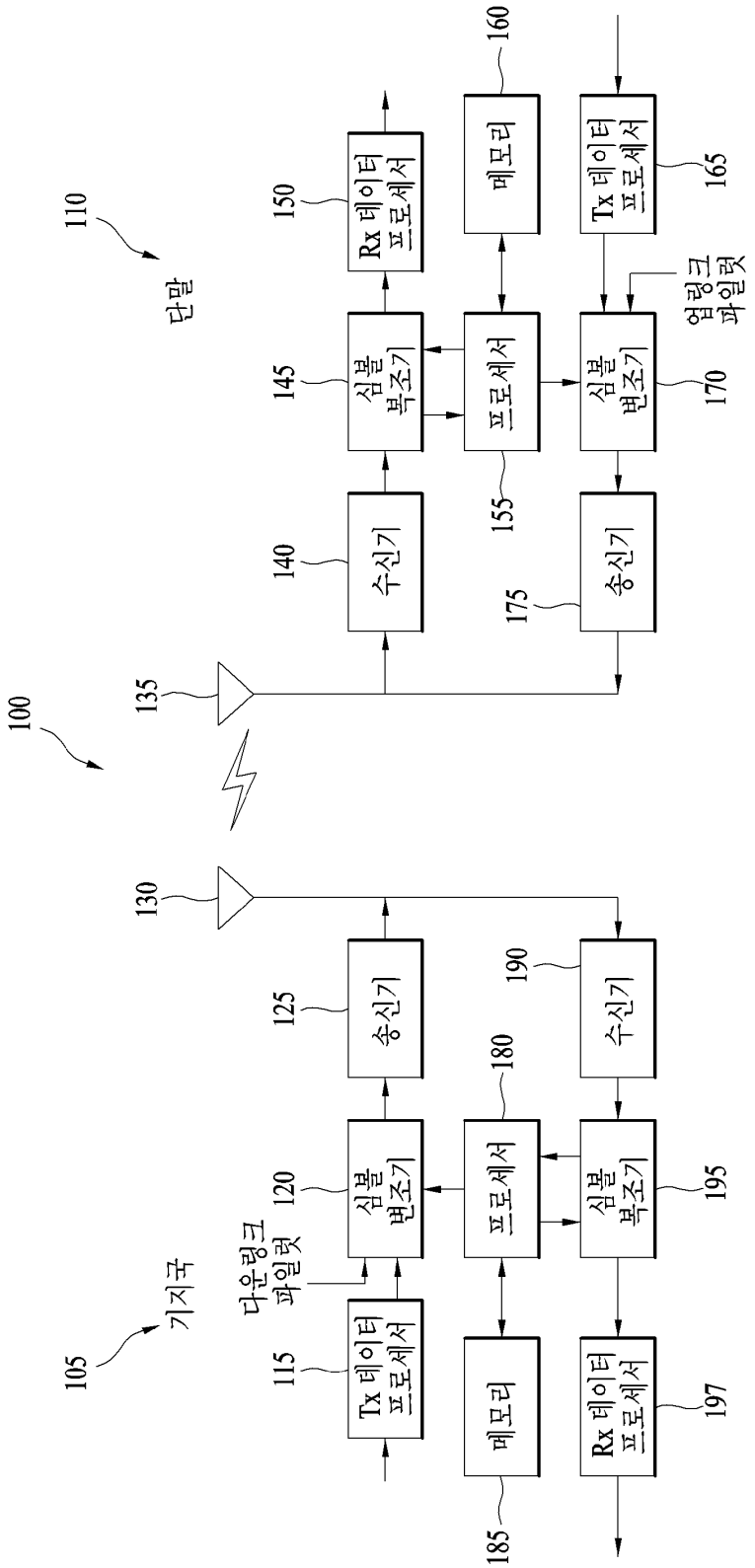

30kHz subcarrier space
D
D
U-centric
U
Matching format
15kHz subcarrier space
D
U

(b)

[도15]


기지국
단말
DCI 생성
(1510)
기준 SCS(1505)
그룹 공통 PDCCH(1515)
슬롯 포맷에 대한 정보를 획득 (1520)

[도16]


100
105
기지국
110
단말
115
Tx 데이터 프로세서
120
심볼 변조기
125
송신기
130
135
140
수신기
145
심볼 복조기
150
Rx 데이터 프로세서
155
프로세서
160
메모리
165
Tx 데이터 프로세서
170
심볼 변조기
175
송신기
180
프로세서
185
메모리
190
수신기
195
심볼 복조기
197
Rx 데이터 프로세서
다운링크 파일럿
업링크 파일럿