

FIG.1

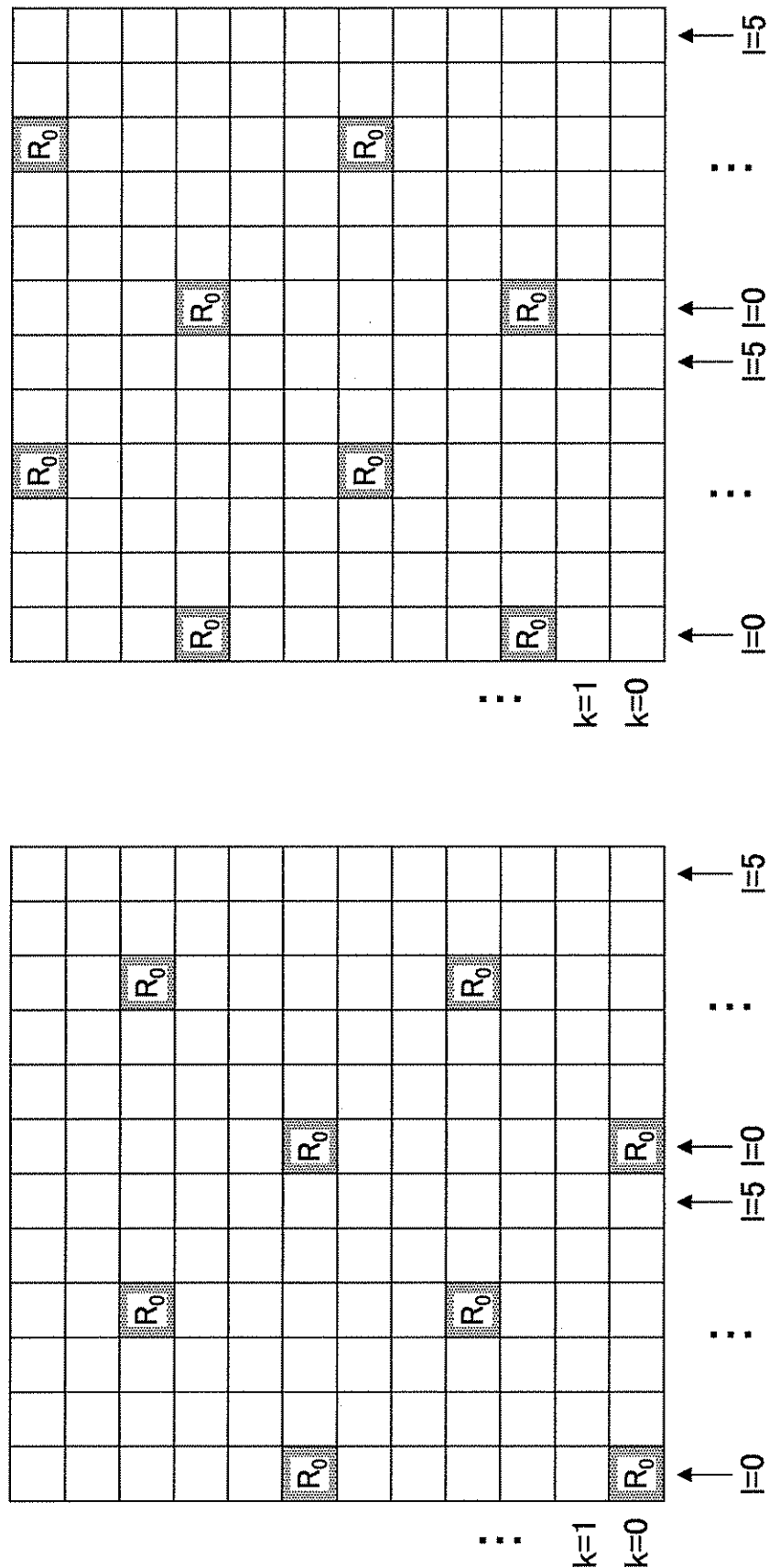


FIG. 2

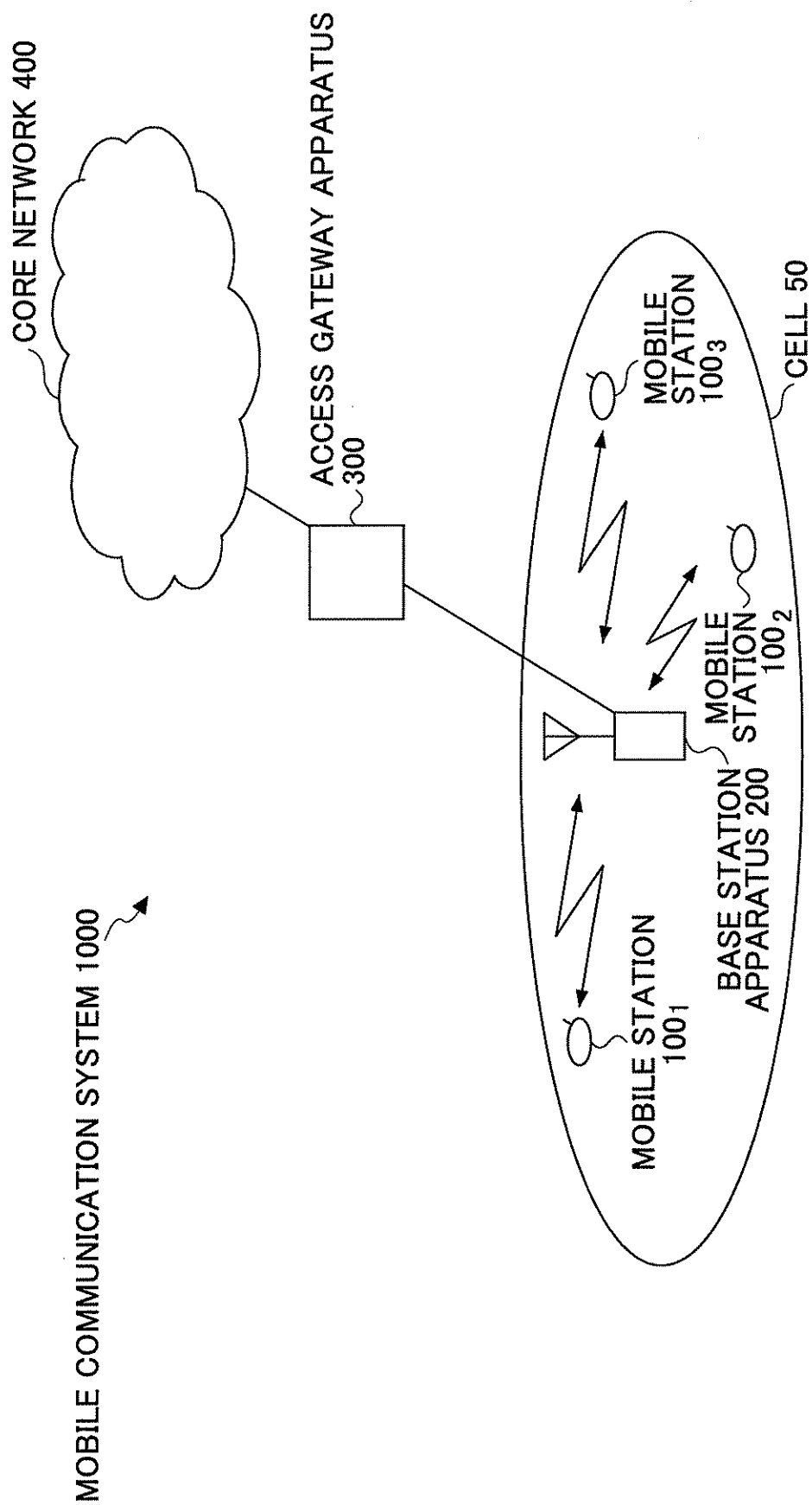


FIG.3

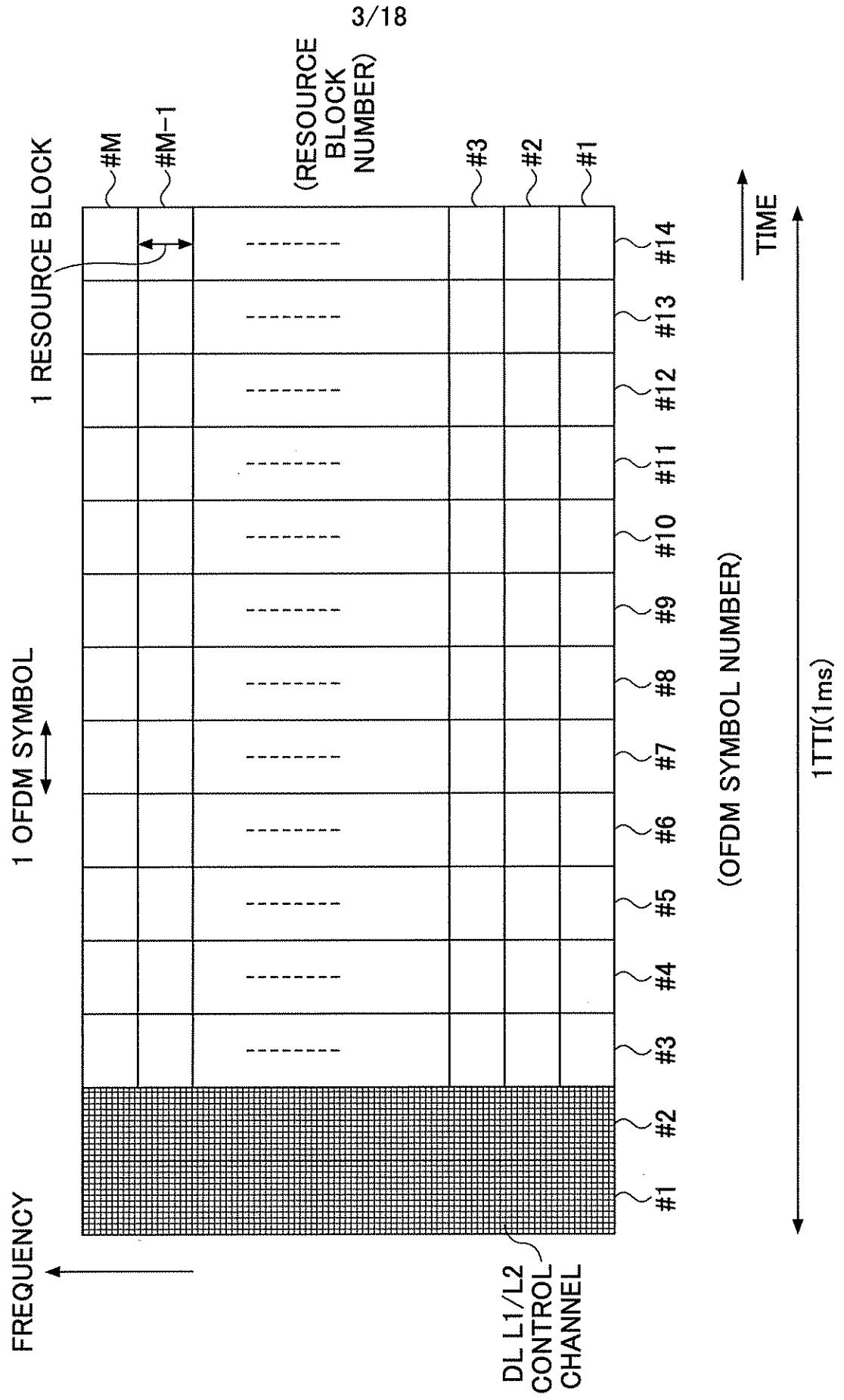


FIG.4

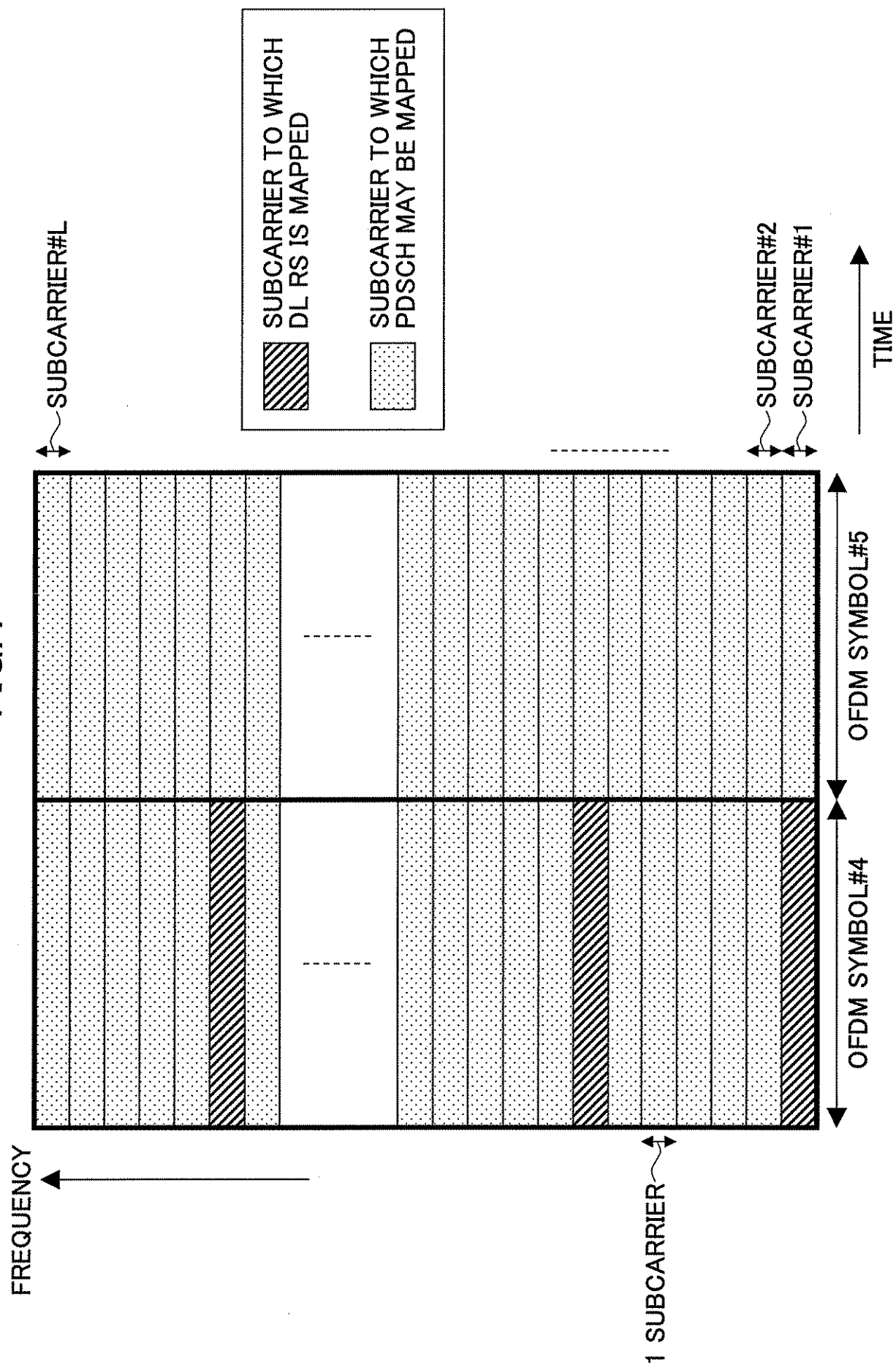


FIG.5

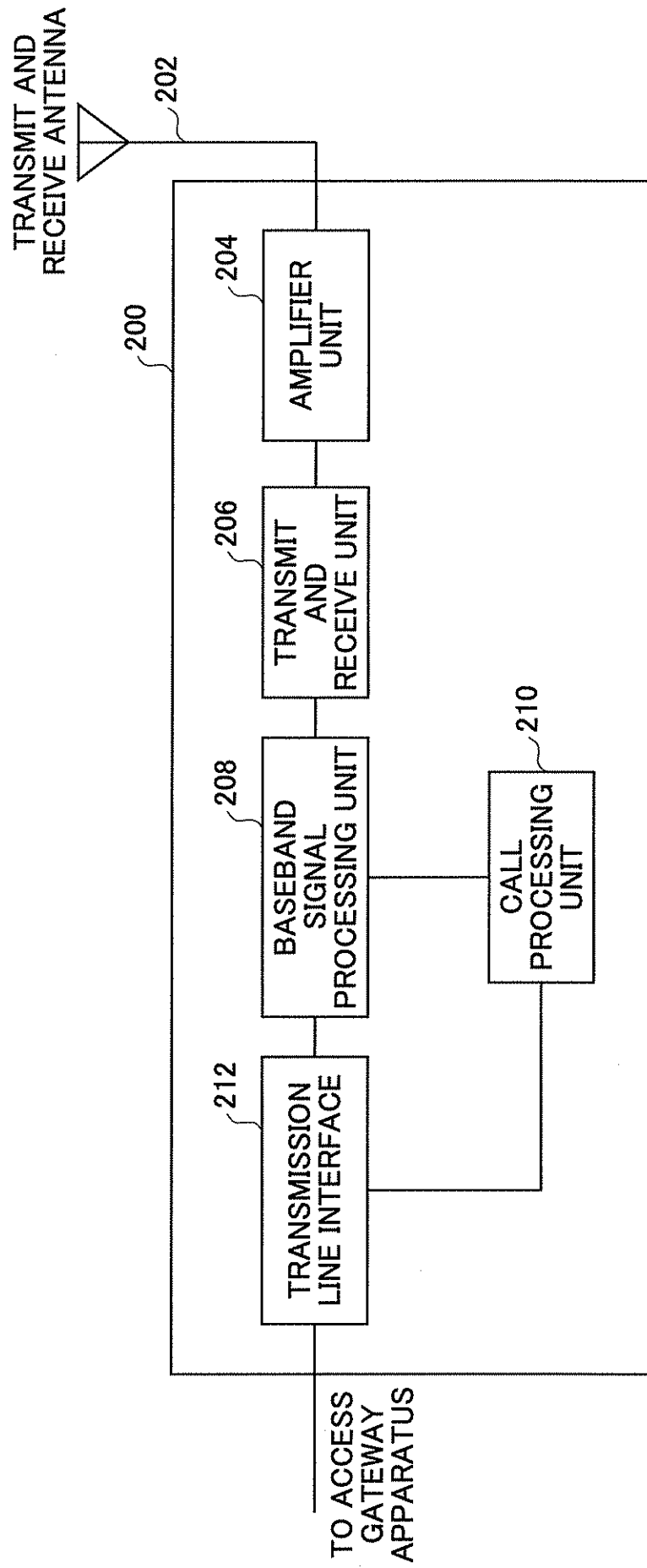


FIG. 6A

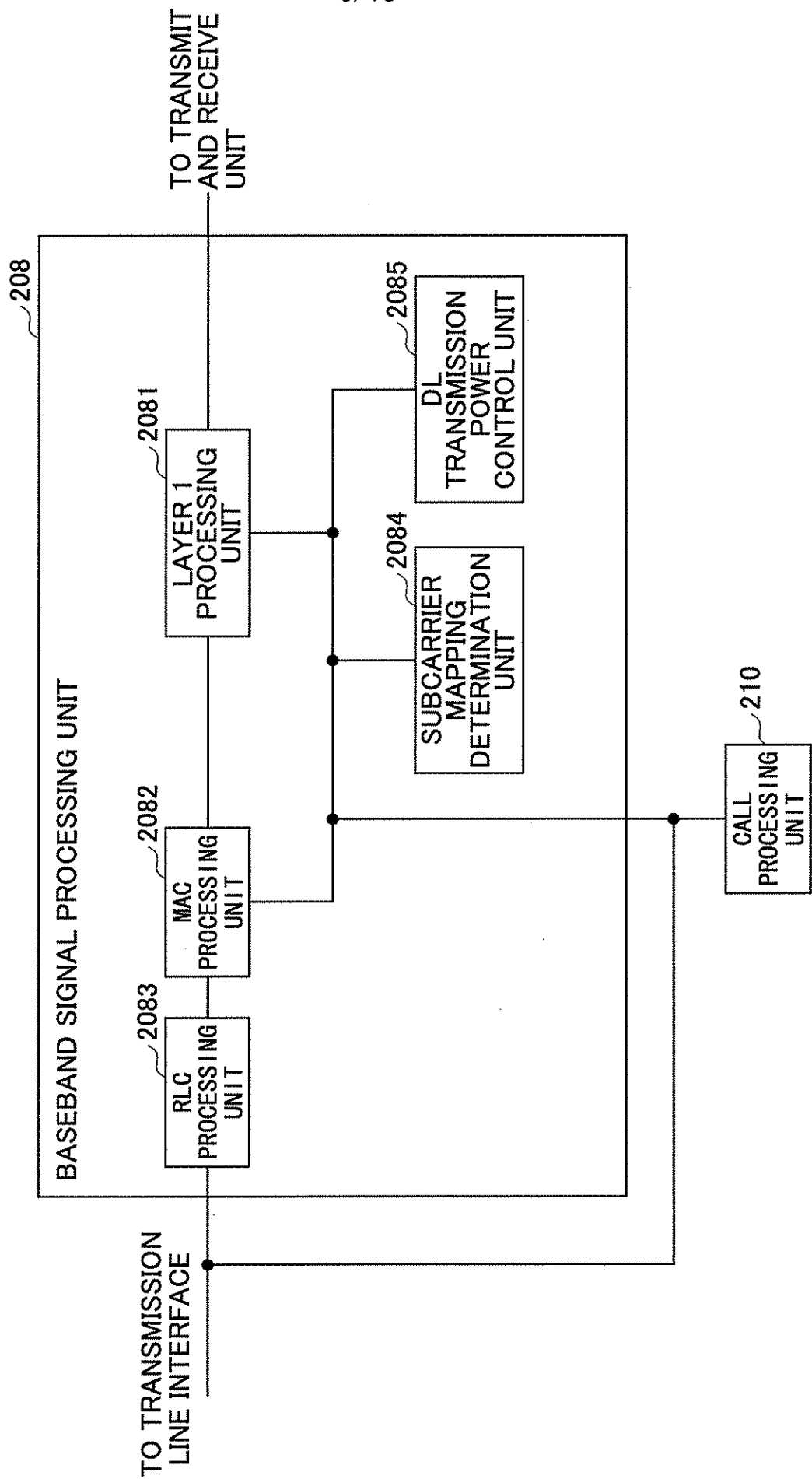


FIG. 6B

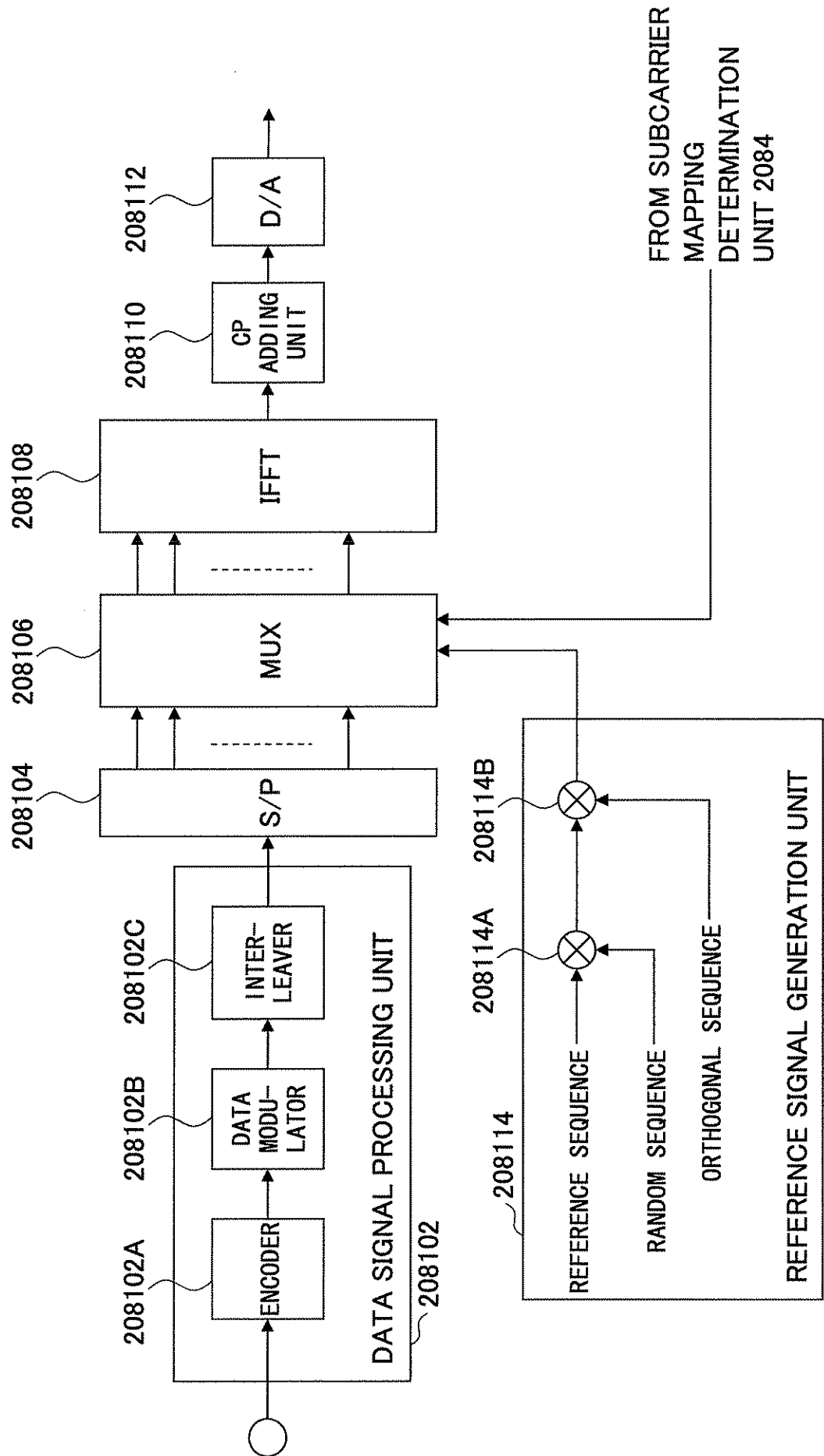


FIG. 7

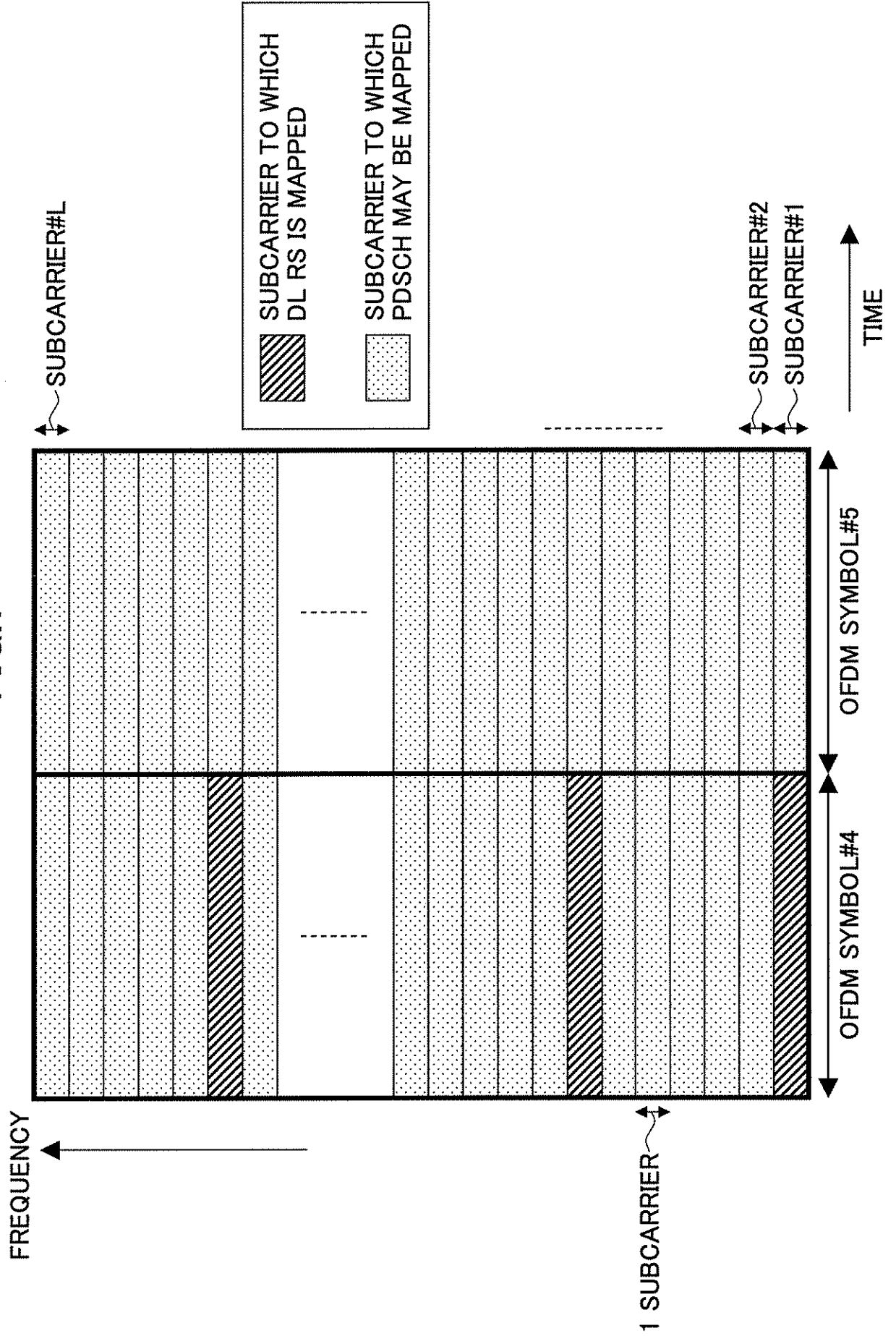


FIG.8

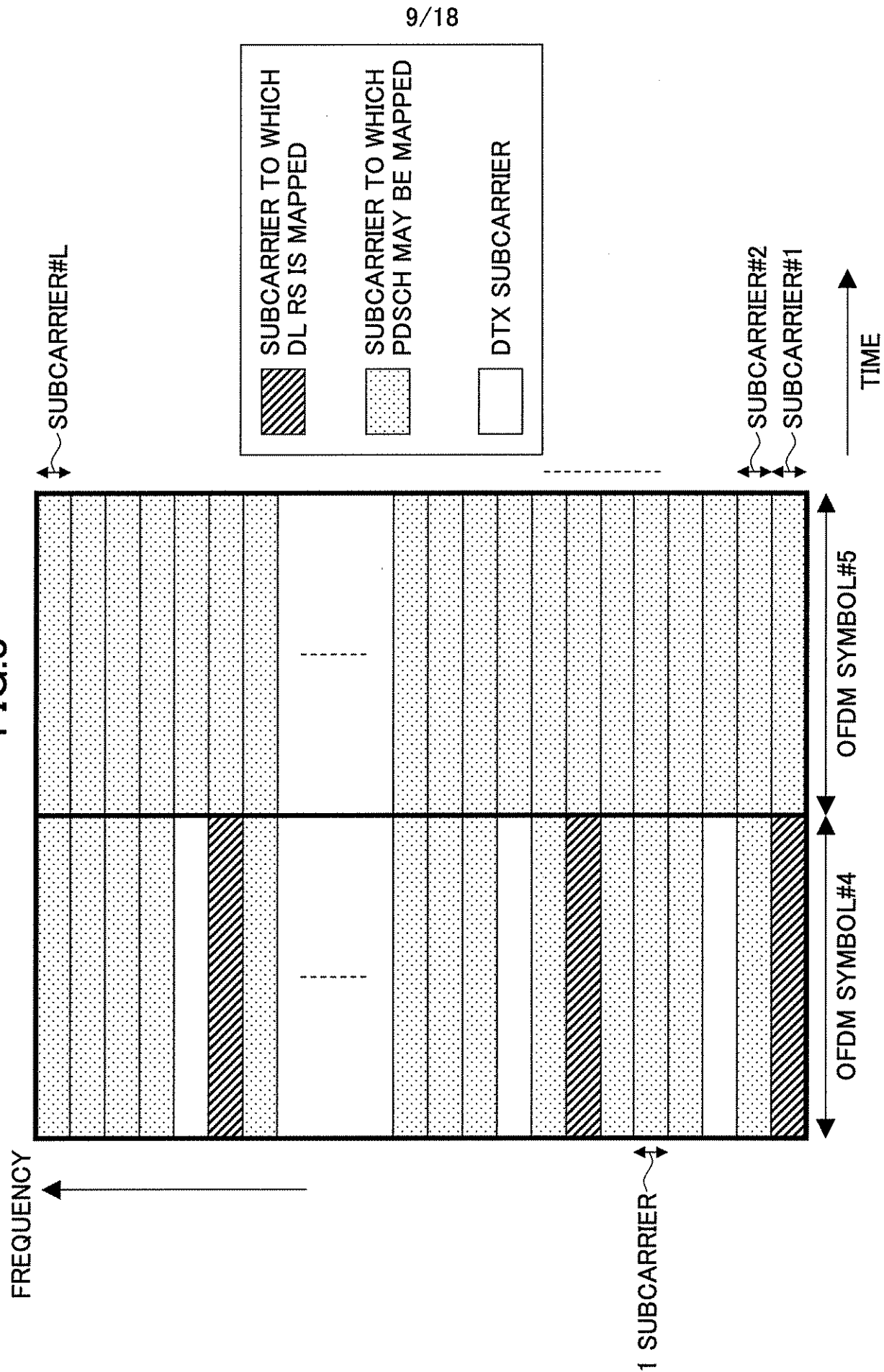


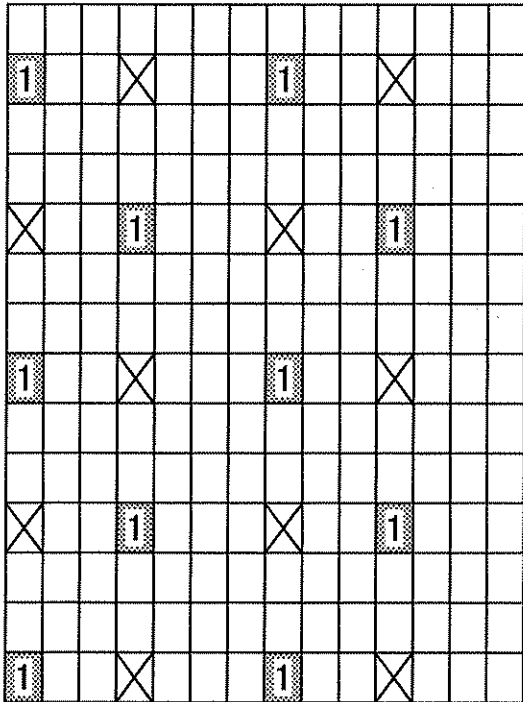
FIG.9A

NUMBER OF PUNCTURING SUBCARRIERS PER 1 RESOURCE BLOCK	PUNCTURING SUBCARRIER NUMBER
1	$(X+1) \bmod 12$
2	$(X+1) \bmod 12, (X+7) \bmod 12$
3	$(X+1) \bmod 12, (X+5) \bmod 12, (X+9) \bmod 12$
4	$(X+1) \bmod 12, (X+4) \bmod 12, (X+7) \bmod 12, (X+10) \bmod 12$
5	$(X+1) \bmod 12, (X+3) \bmod 12, (X+5) \bmod 12, (X+7) \bmod 12, (X+9) \bmod 12$
6	$(X+1) \bmod 12, (X+3) \bmod 12, (X+5) \bmod 12, (X+7) \bmod 12, (X+9) \bmod 12, (X+11) \bmod 12$

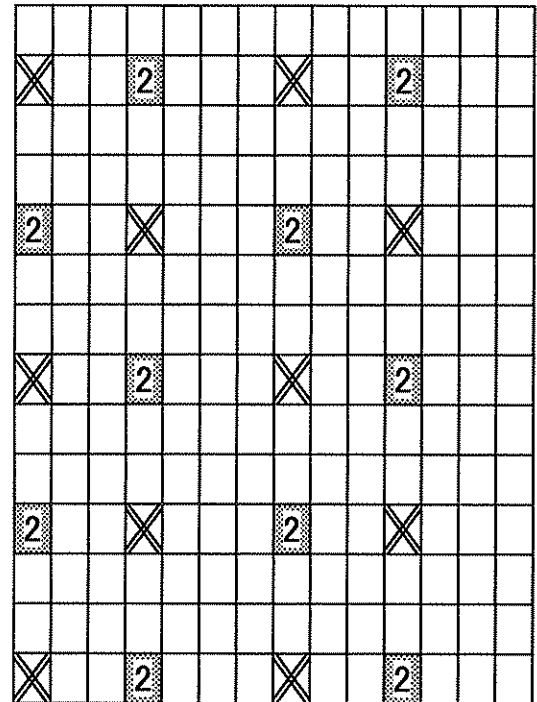
FIG.9B

NUMBER OF PUNCTURING SUBCARRIERS PER 1 RESOURCE BLOCK	PUNCTURING SUBCARRIER NUMBER
1	$(X+3) \bmod 12$
2	$(X+3) \bmod 12, (X+9) \bmod 12$
3	$(X+3) \bmod 12, (X+9) \bmod 12, (X+1) \bmod 12$
4	$(X+3) \bmod 12, (X+9) \bmod 12, (X+1) \bmod 12, (X+7) \bmod 12$
5	$(X+3) \bmod 12, (X+9) \bmod 12, (X+1) \bmod 12, (X+7) \bmod 12, (X+5)$
6	$(X+3) \bmod 12, (X+9) \bmod 12, (X+1) \bmod 12, (X+7) \bmod 12, (X+5), (X+11)$

FIG.9C



WHEN ANTENNA PORT NUMBER
IS 0 AND $f_{\text{hop}}(j)$ IS ALWAYS 0



WHEN ANTENNA PORT NUMBER
IS 1 AND $f_{\text{hop}}(j)$ IS ALWAYS 0

- 1** SUBCARRIER OF REFERENCE SIGNAL TRANSMITTED FROM FIRST ANTENNA
- X** SUBCARRIER BY WHICH NO SIGNAL IS TRANSMITTED FROM FIRST ANTENNA SINCE THE SUBCARRIER OVERLAPS WITH SUBCARRIER OF REFERENCE SIGNAL TRANSMITTED FROM SECOND ANTENNA
- 2** SUBCARRIER OF REFERENCE SIGNAL TRANSMITTED FROM SECOND ANTENNA
- X** SUBCARRIER BY WHICH NO SIGNAL IS TRANSMITTED FROM SECOND ANTENNA SINCE THE SUBCARRIER OVERLAPS WITH SUBCARRIER OF REFERENCE SIGNAL TRANSMITTED FROM FIRST ANTENNA

[illegible]

FIG. 11

[illegible]

FIG. 12A

[illegible]

FIG.12B

NUMBER OF PUNCTURING SUBCARRIERS IN EACH RB	TRANSMISSION POWER VALUE (OFFSET VALUE) OF DL RS (DOWNLINK REFERENCE SIGNAL)
0	0.00 dB
1	1.76 dB
2	3.01 dB
3	3.97 dB
4	4.77 dB
5	5.44 dB
6	6.02 dB

FIG. 13A

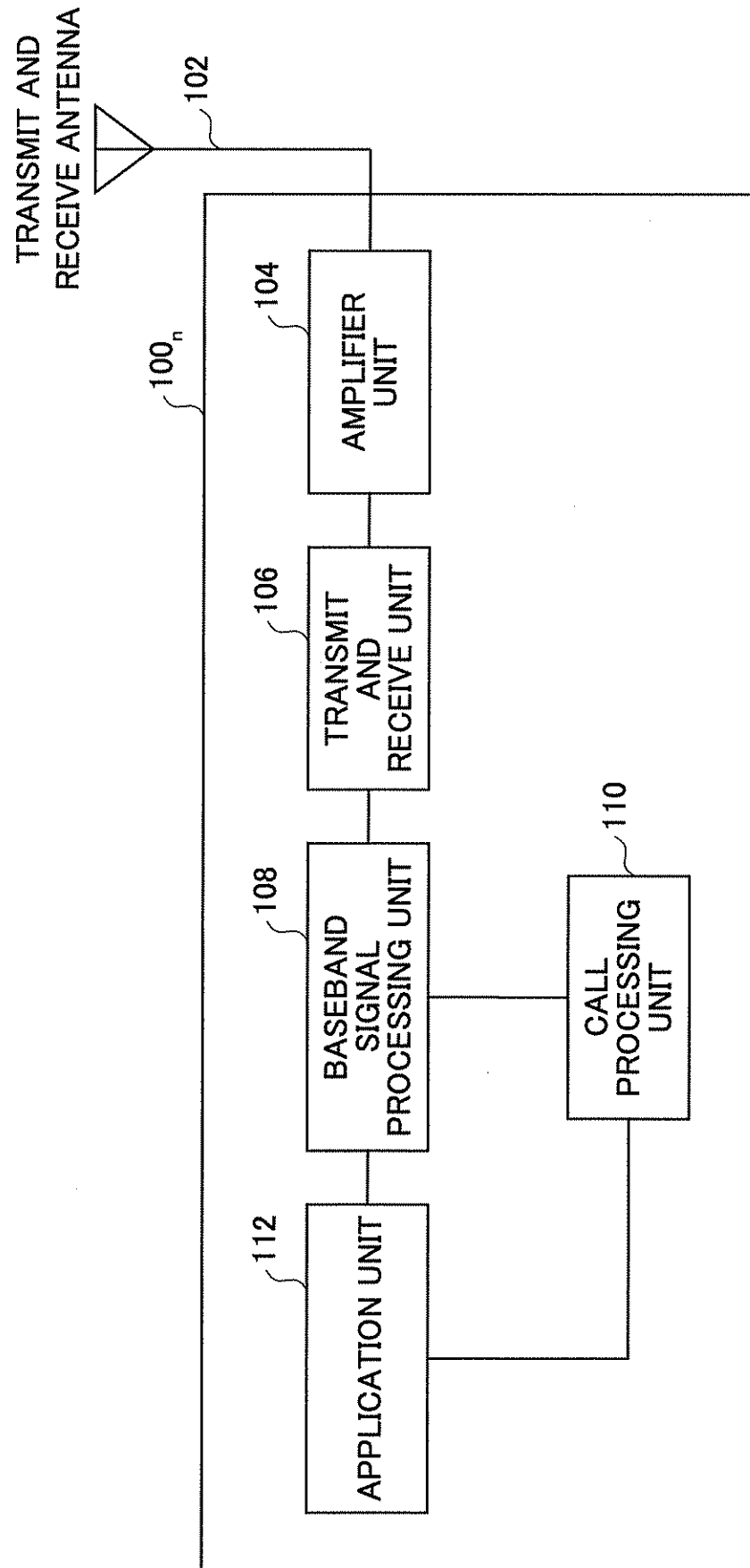


FIG.13B

