

FIG. 1

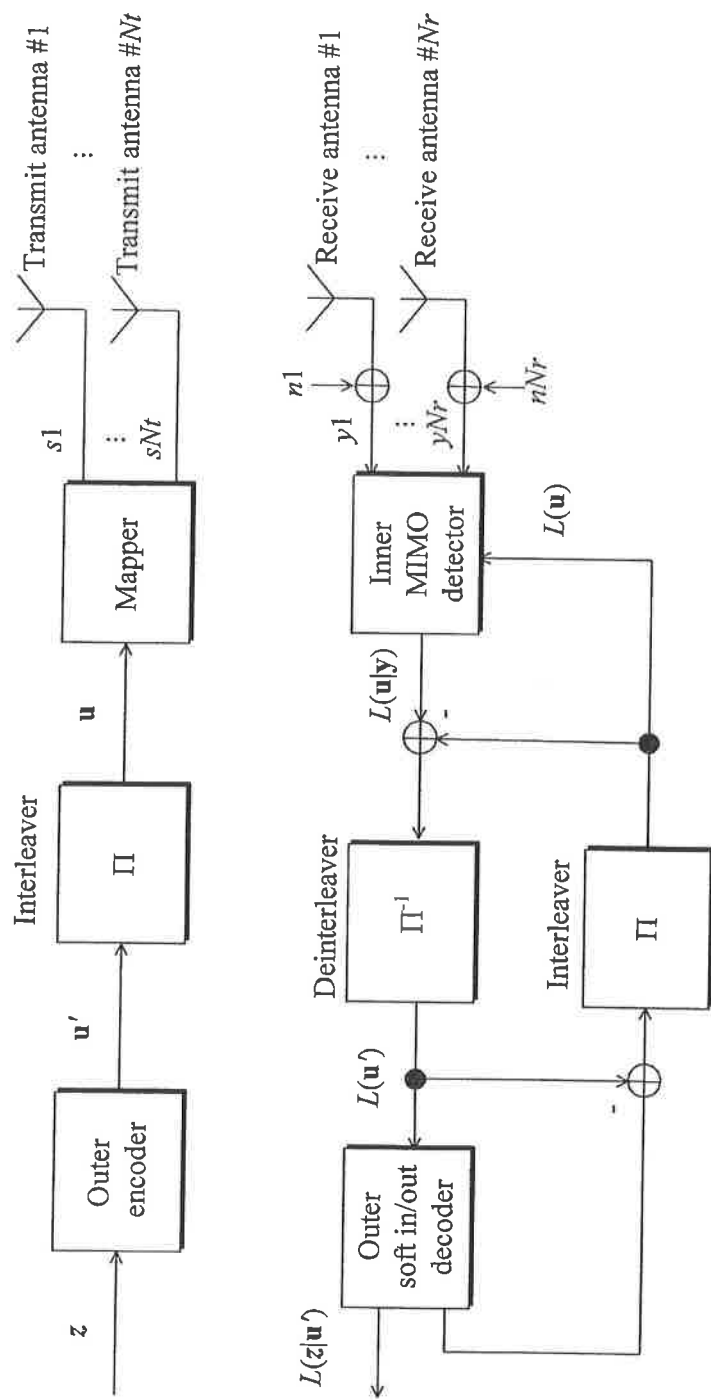


FIG. 2

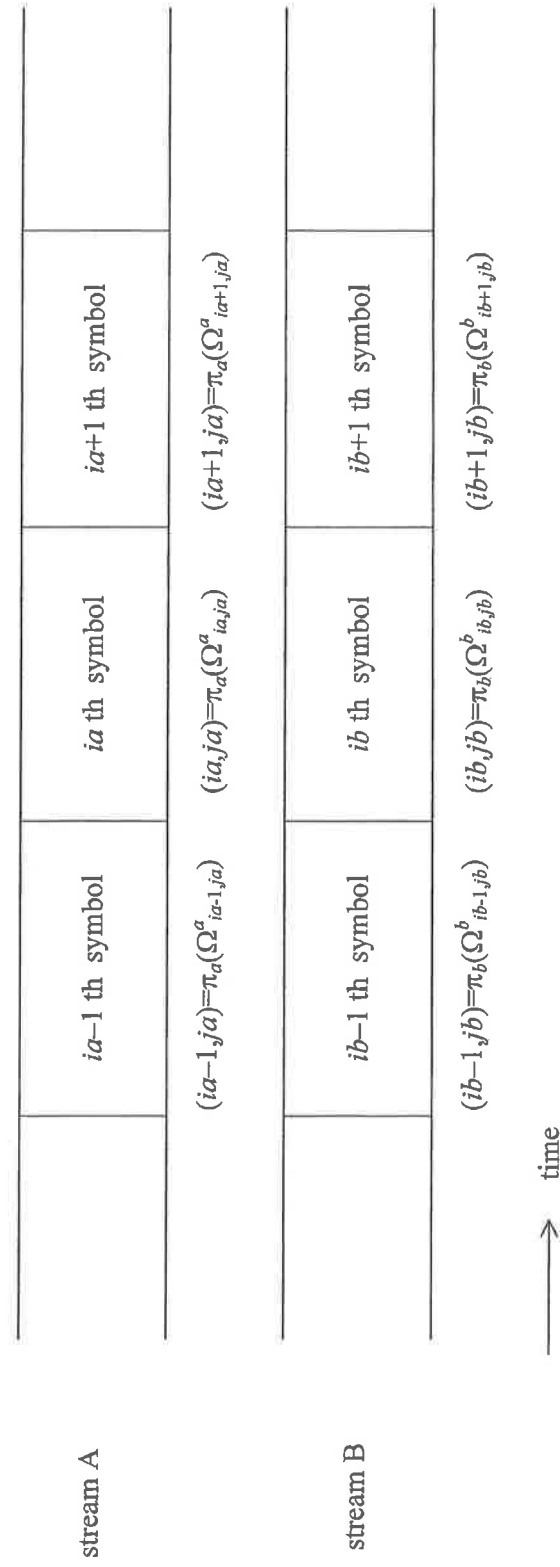


FIG. 3

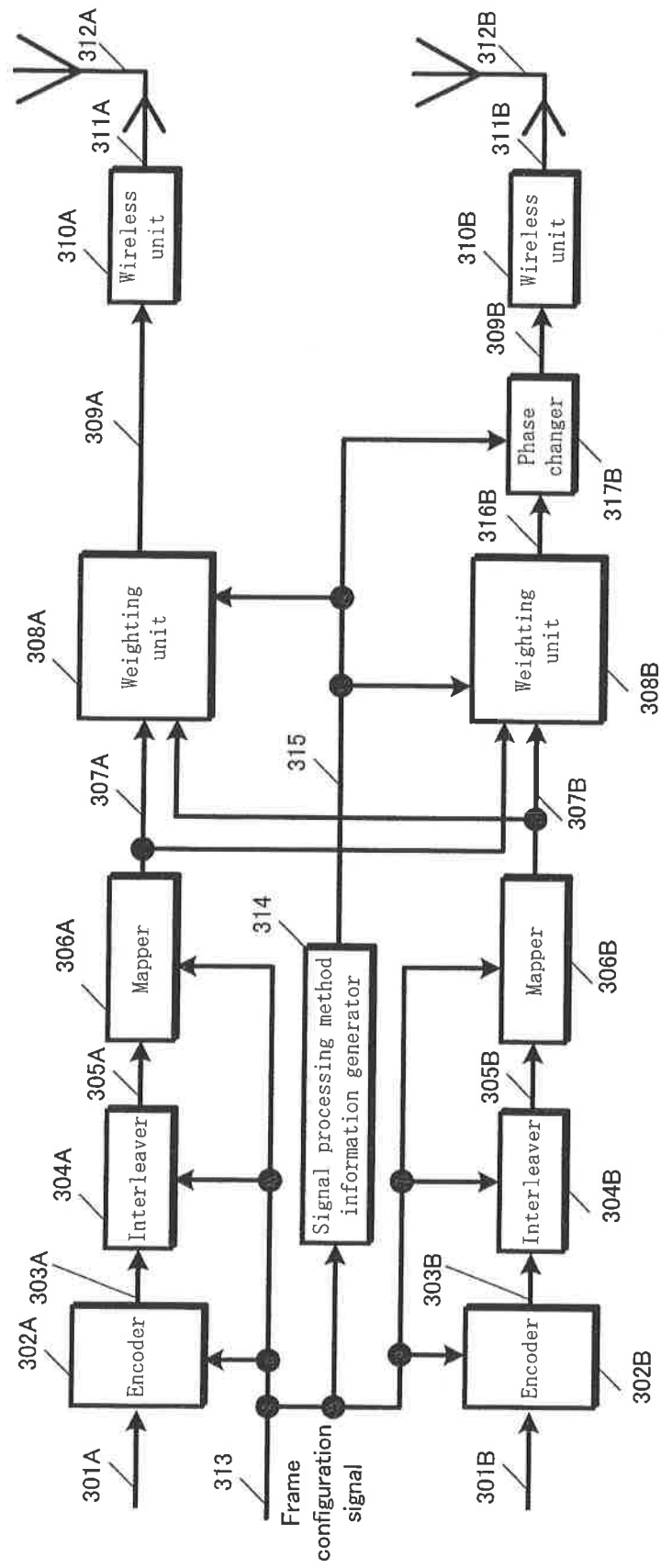


FIG. 5

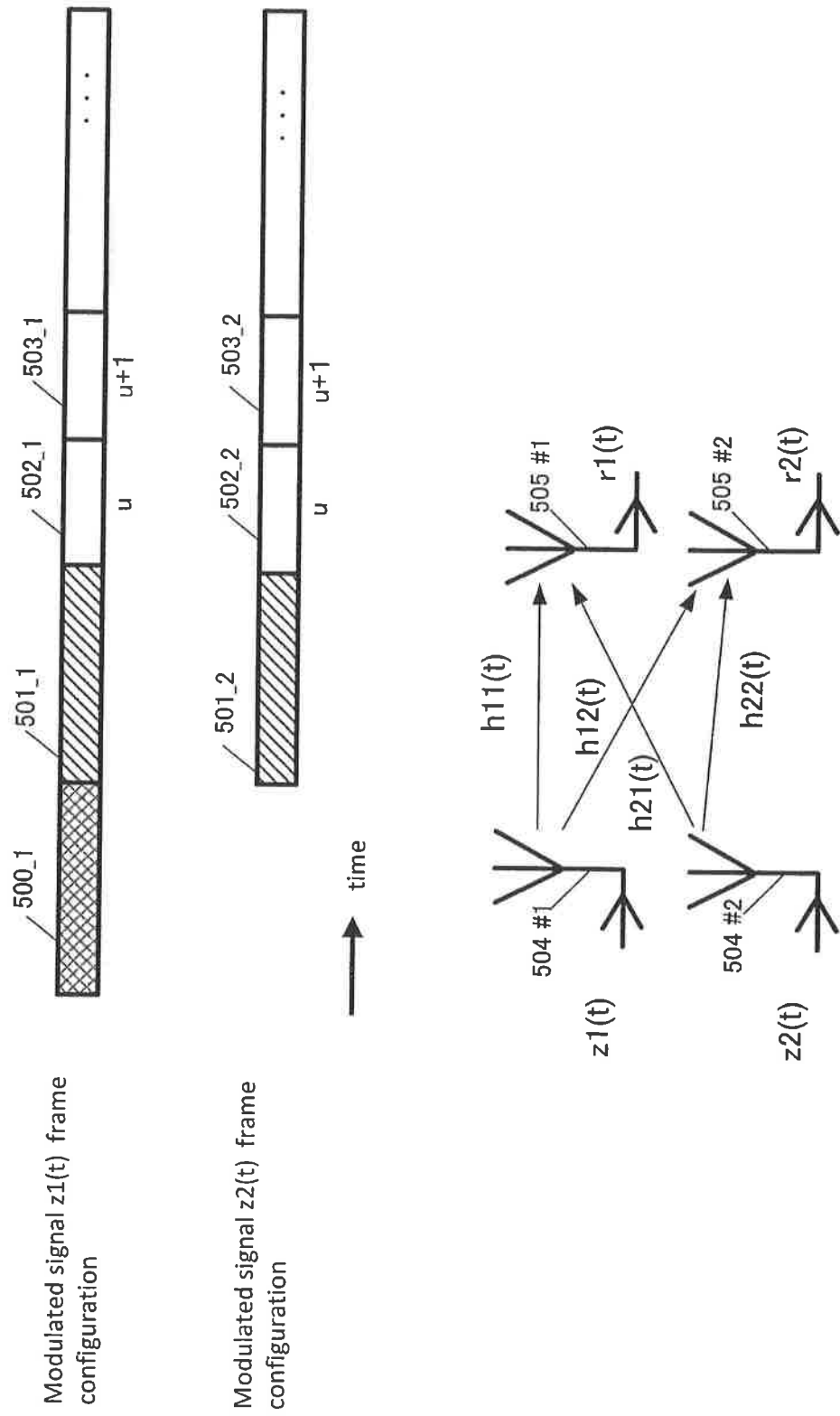
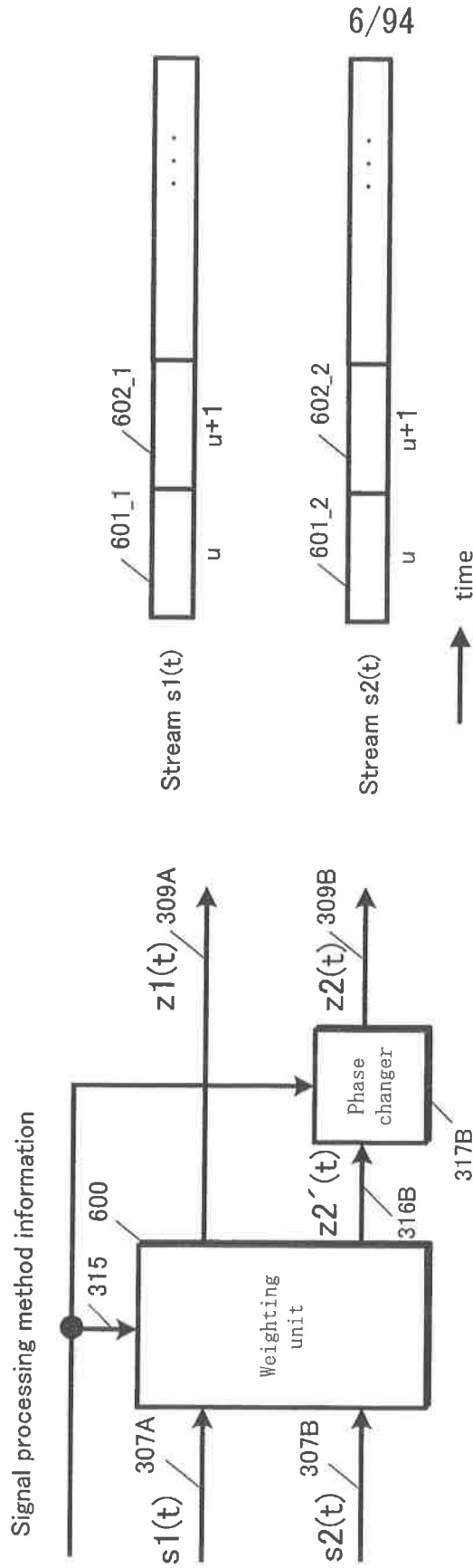


FIG. 6



Sample variations of phase changing formula $y(t)$ used by phase changer

timestamp u	timestamp $u+1$	timestamp $u+2$	timestamp $u+3$	timestamp $u+k$
$y(u) = e^{j0}$	$y(u+1) = e^{j\frac{\pi}{2}}$	$y(u+2) = e^{j\pi}$	$y(u+3) = e^{j\frac{3\pi}{2}}$	$y(u+k) = e^{j\frac{k\pi}{2}}$

FIG. 7

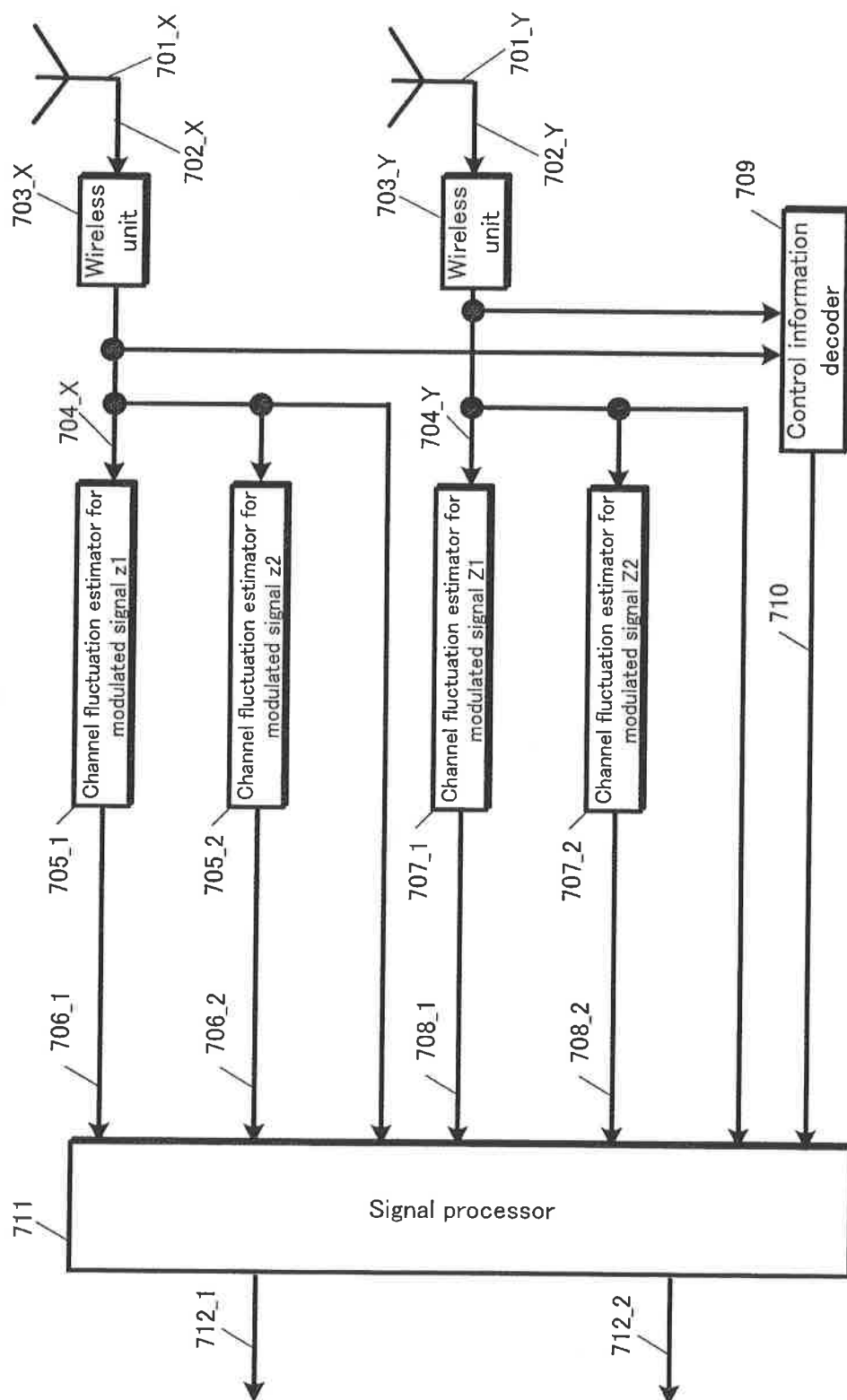


FIG. 8

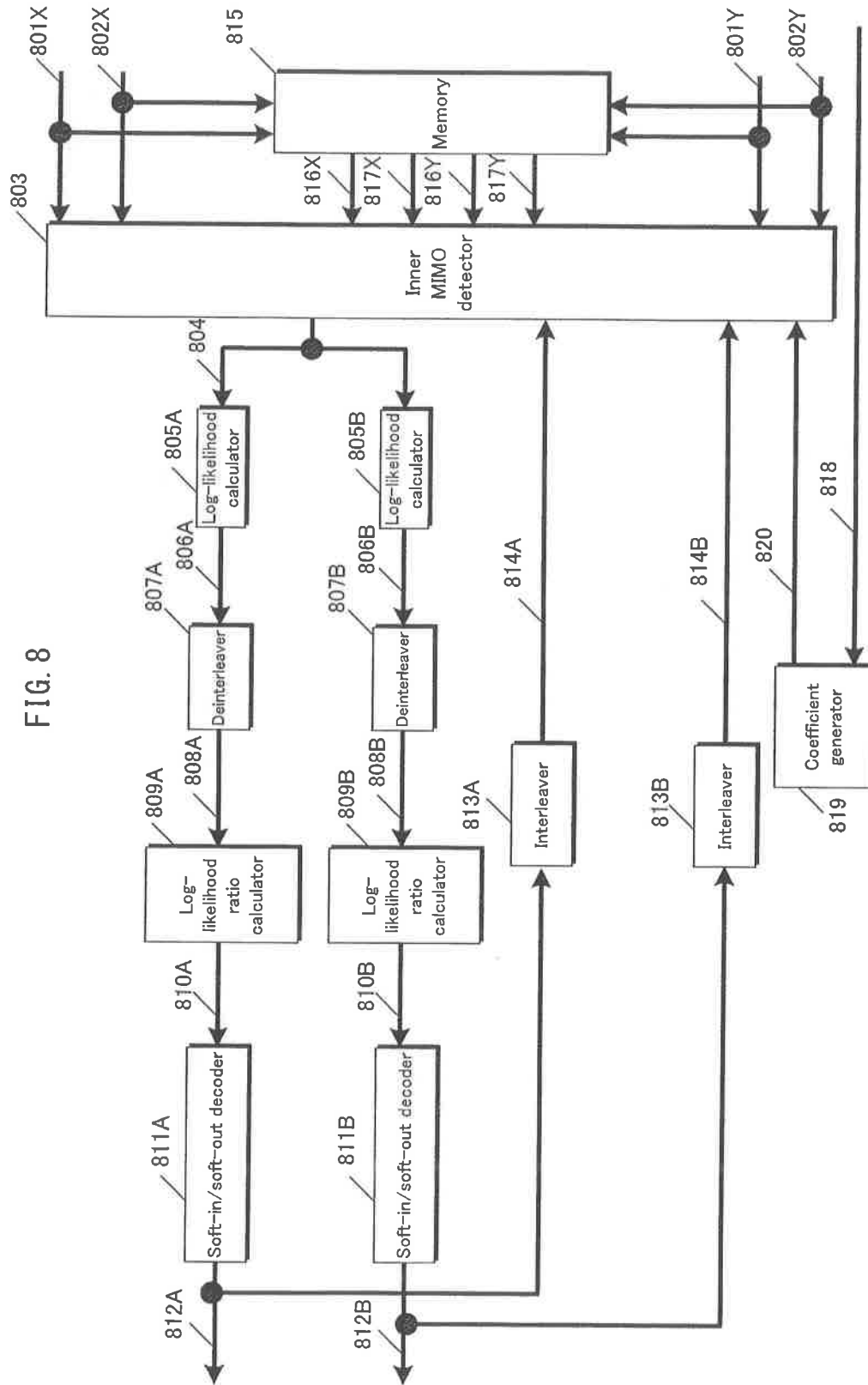


FIG. 9

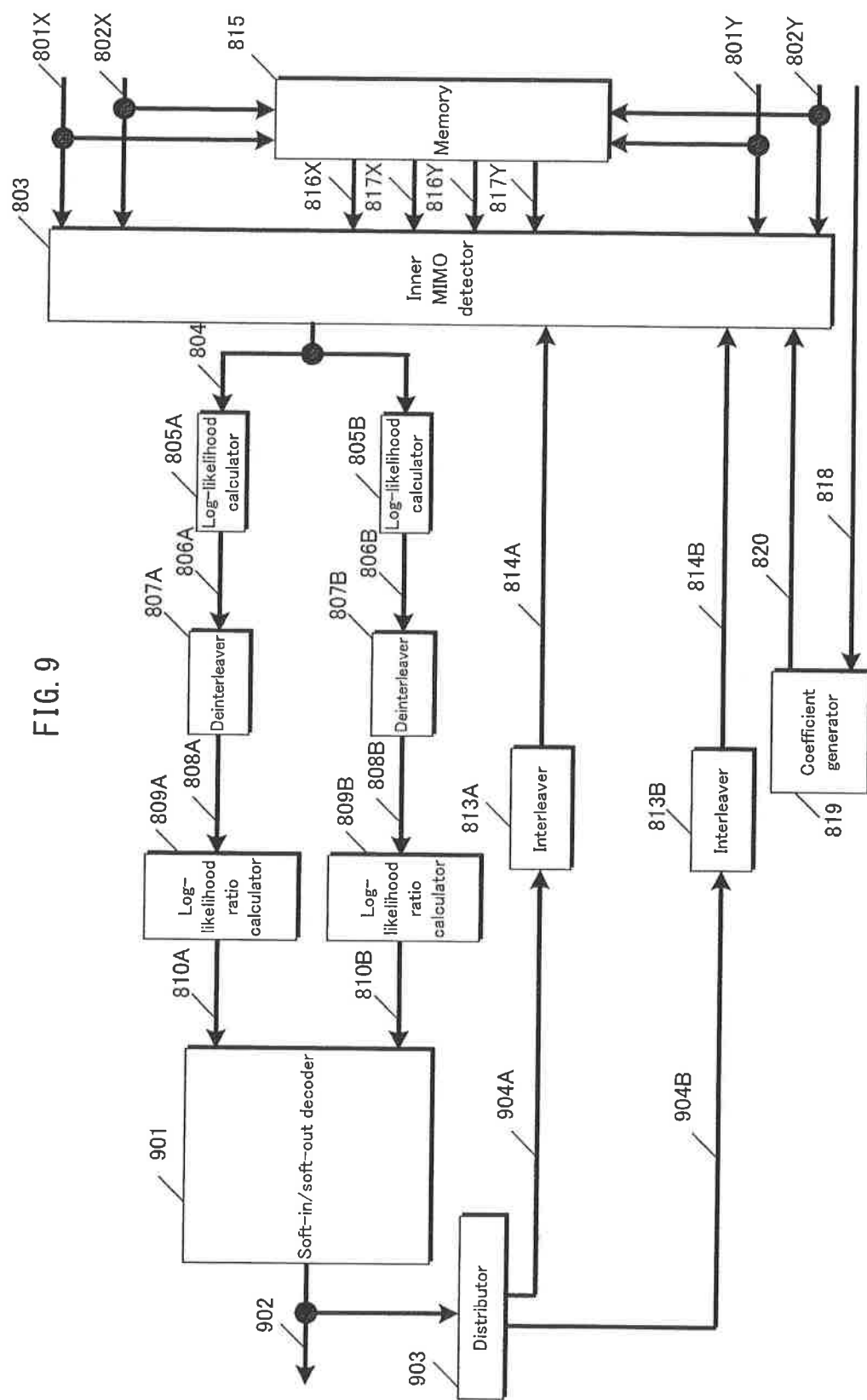


FIG. 10

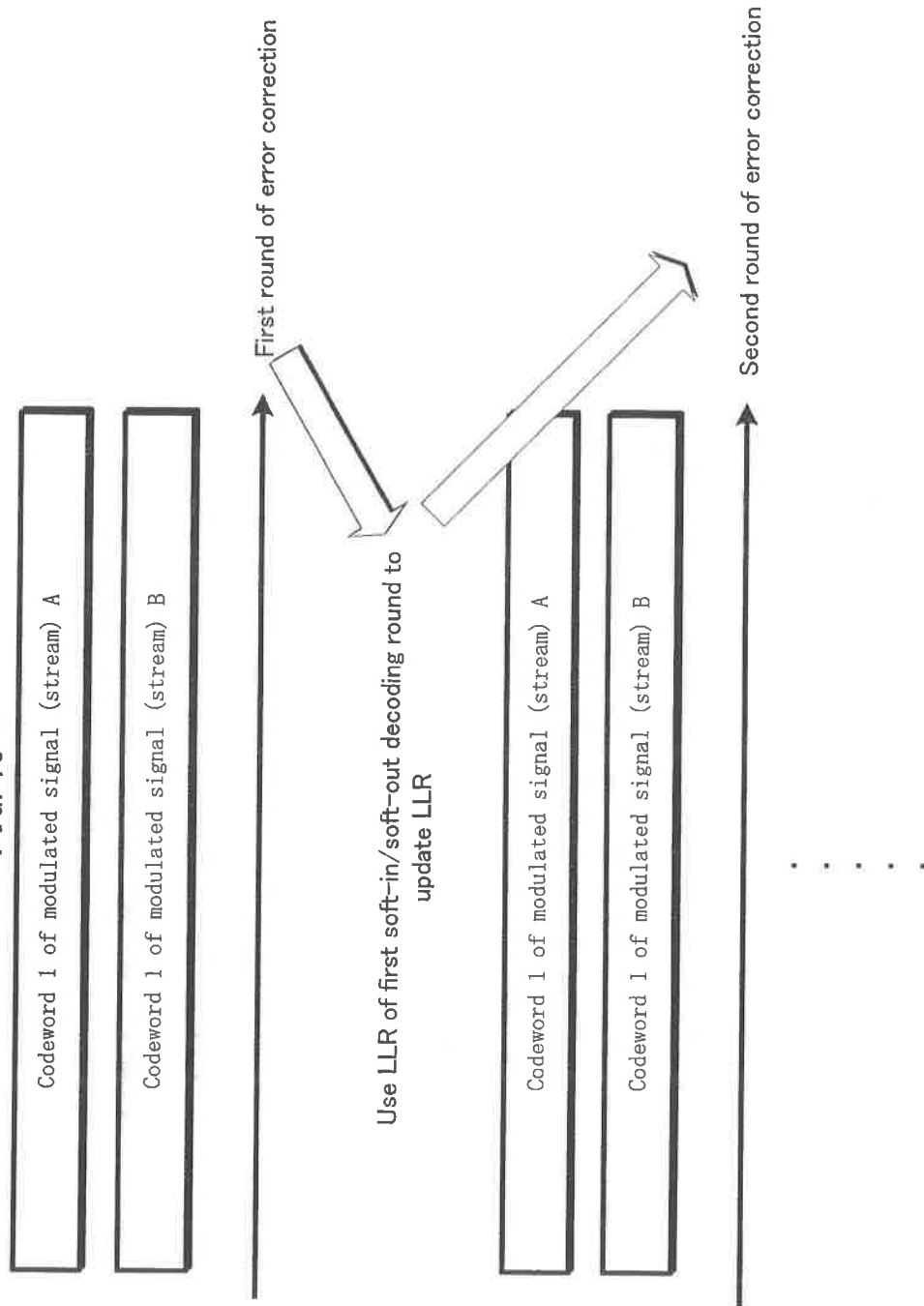


FIG. 12

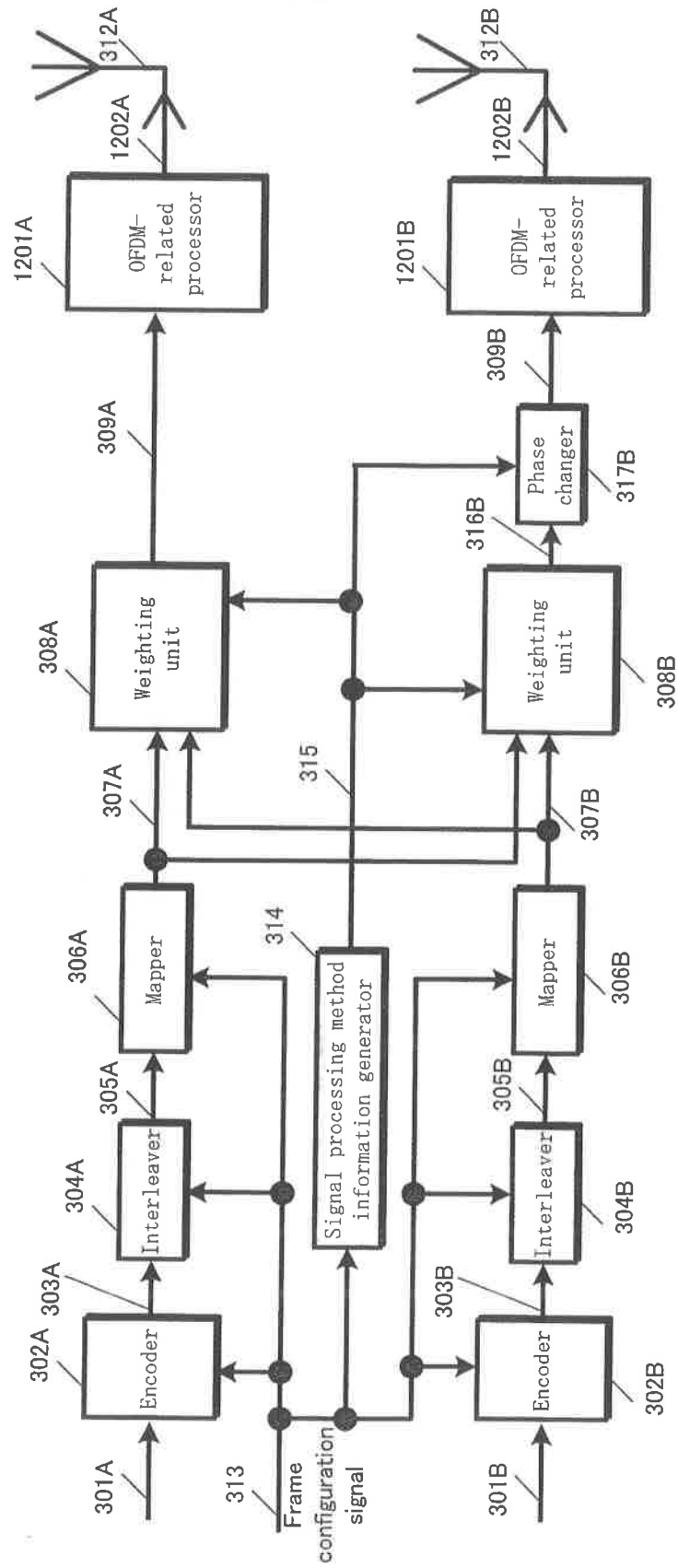


FIG. 13

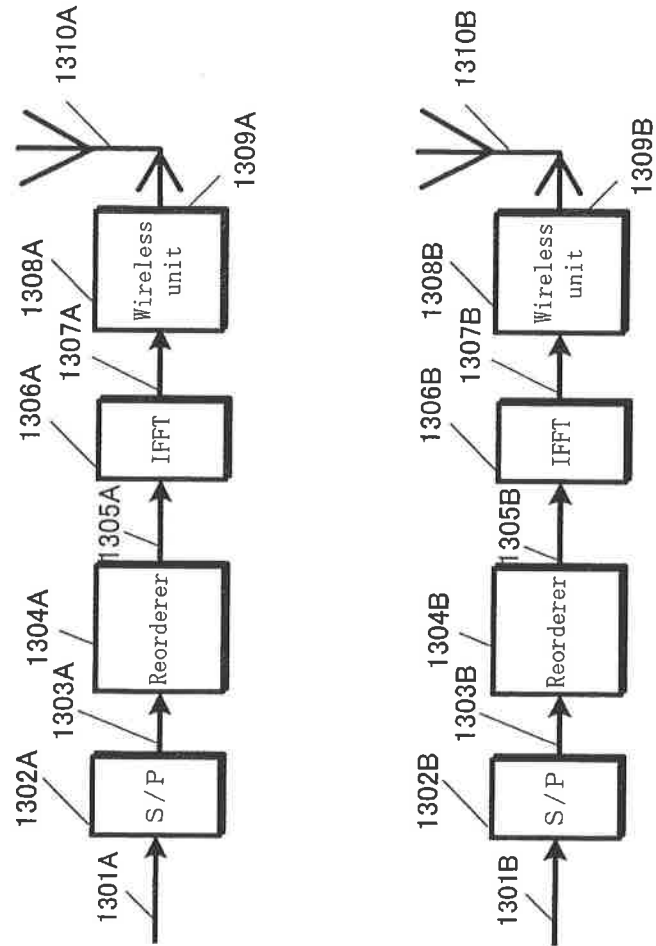


FIG. 14A

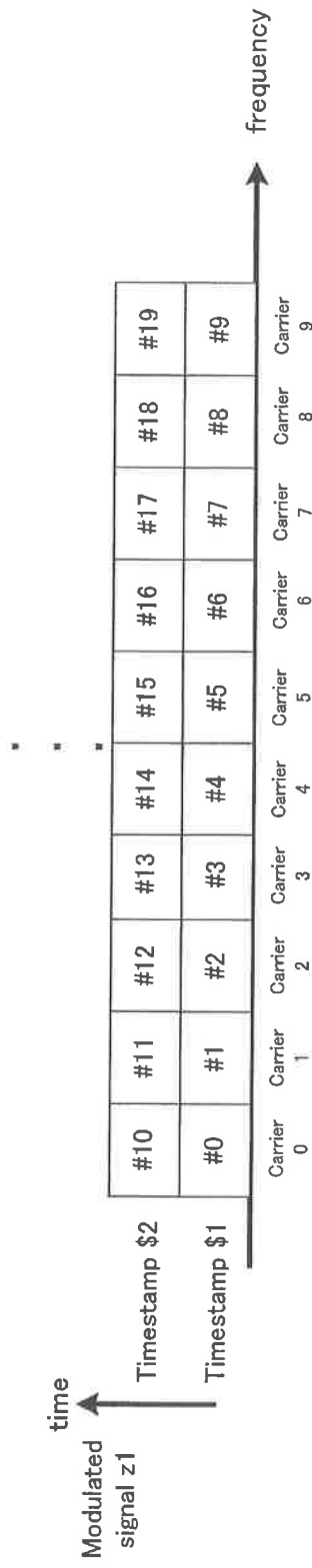


FIG. 14B

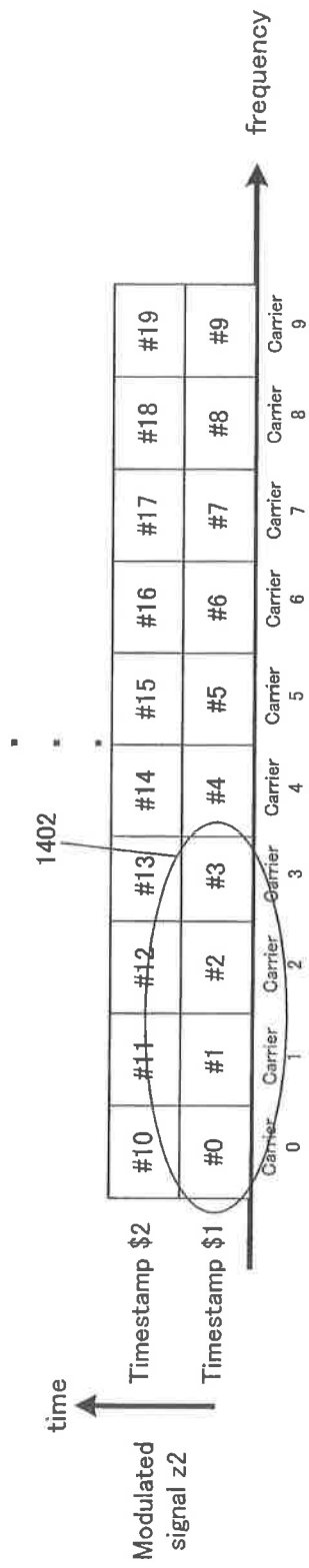


FIG. 15A

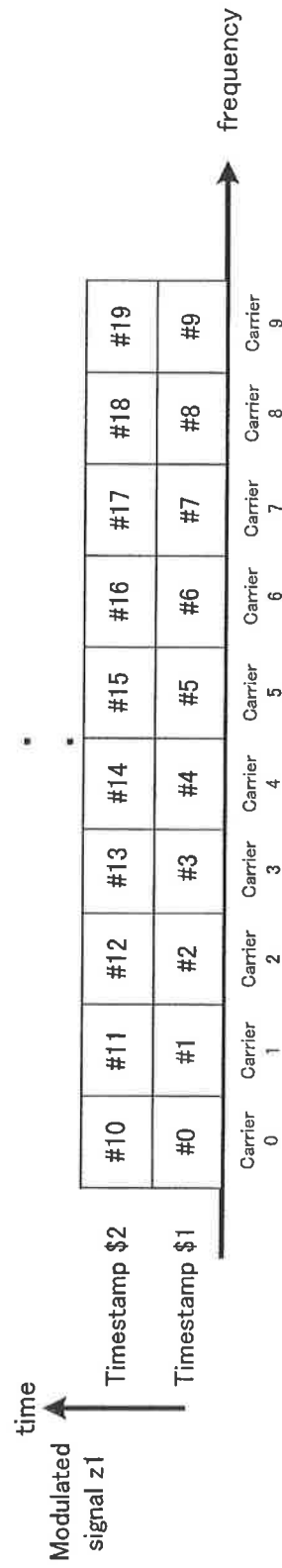


FIG. 15B

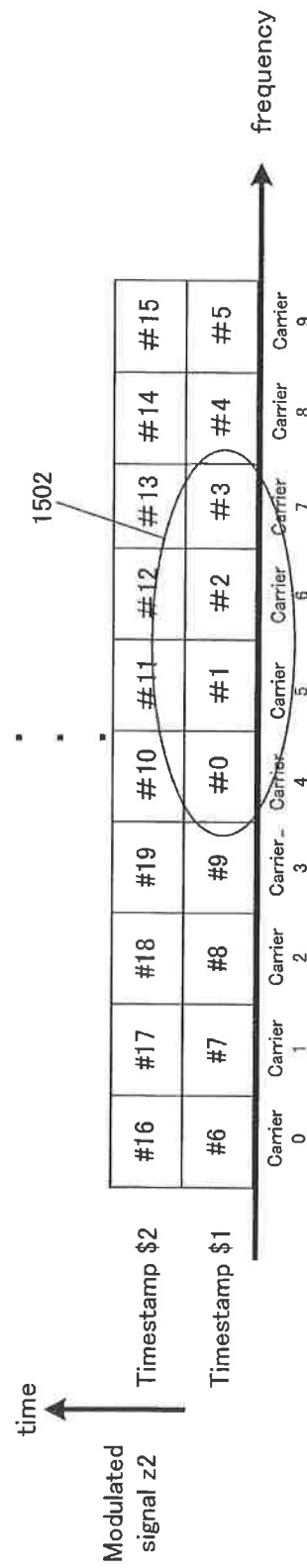


FIG. 16A

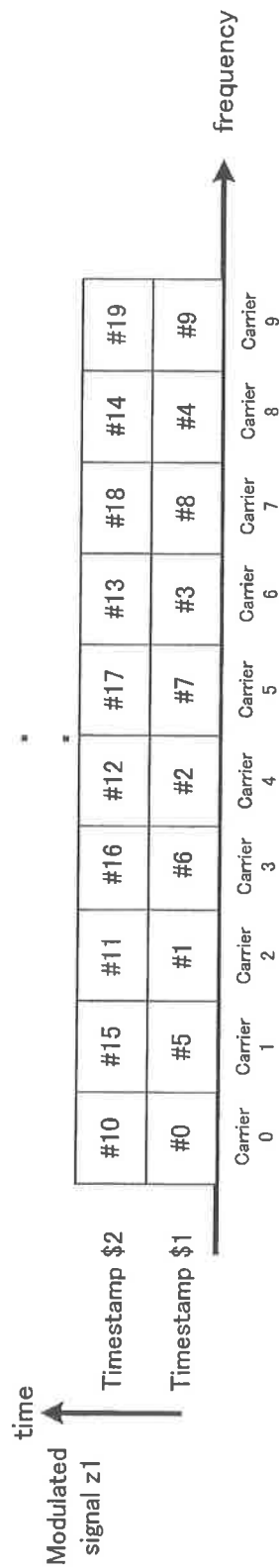


FIG. 16B

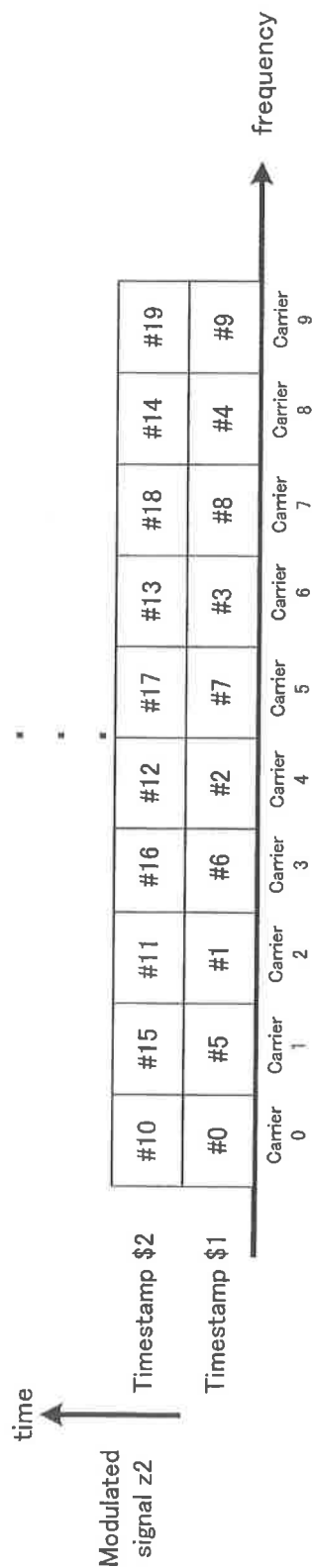


FIG. 17A

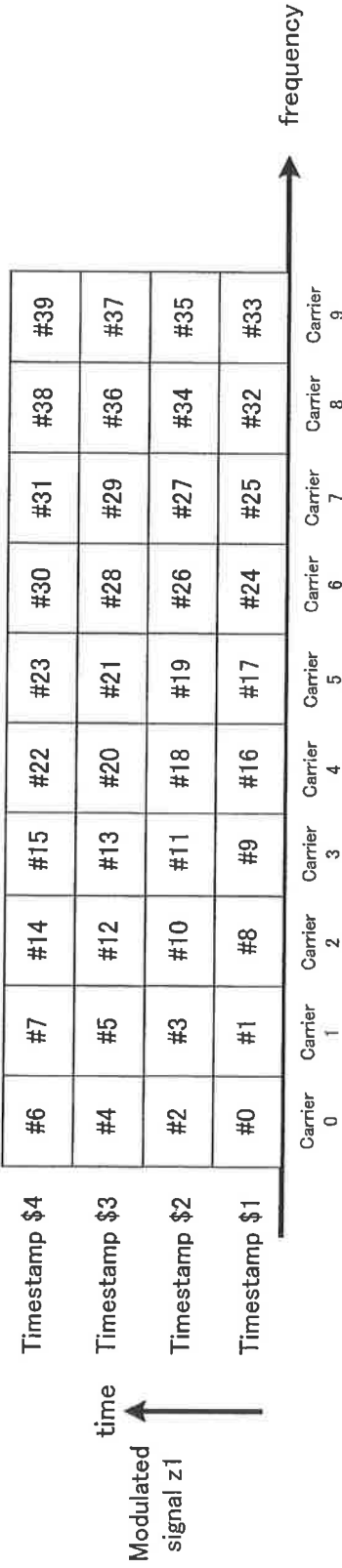


FIG. 17B

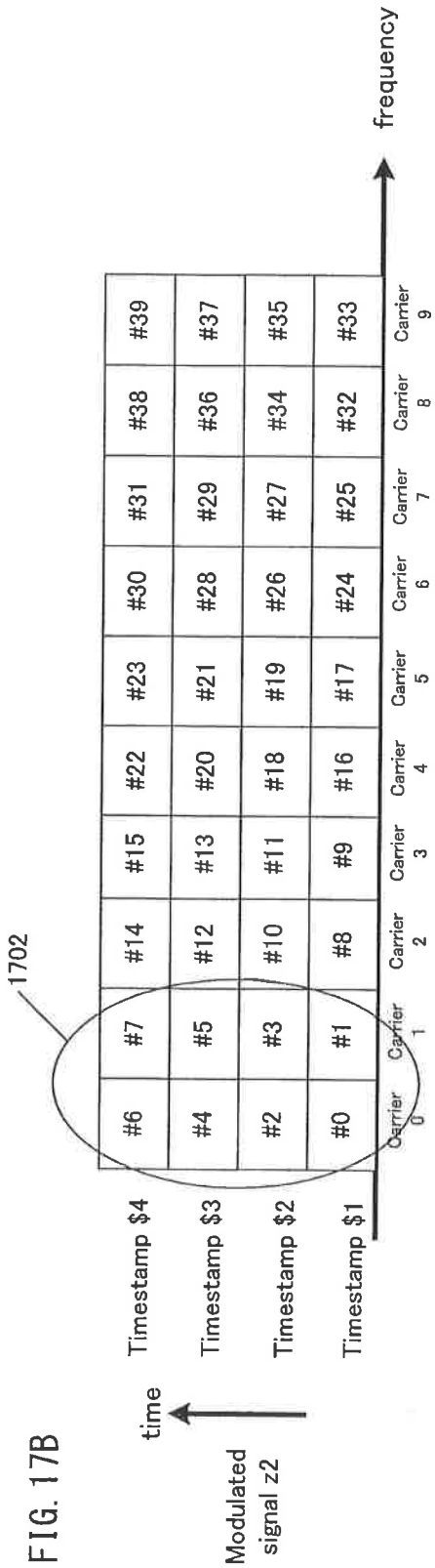


FIG. 18A

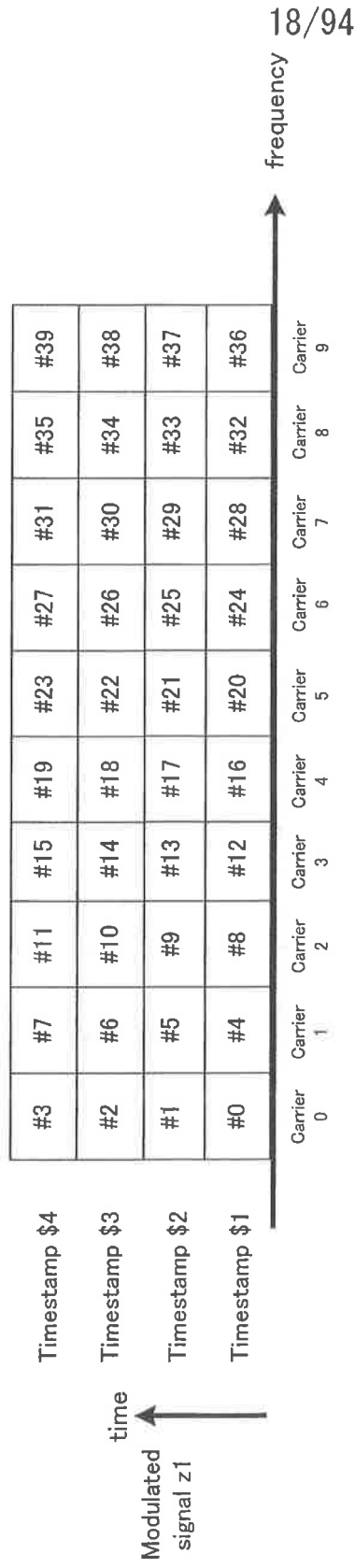


FIG. 18B

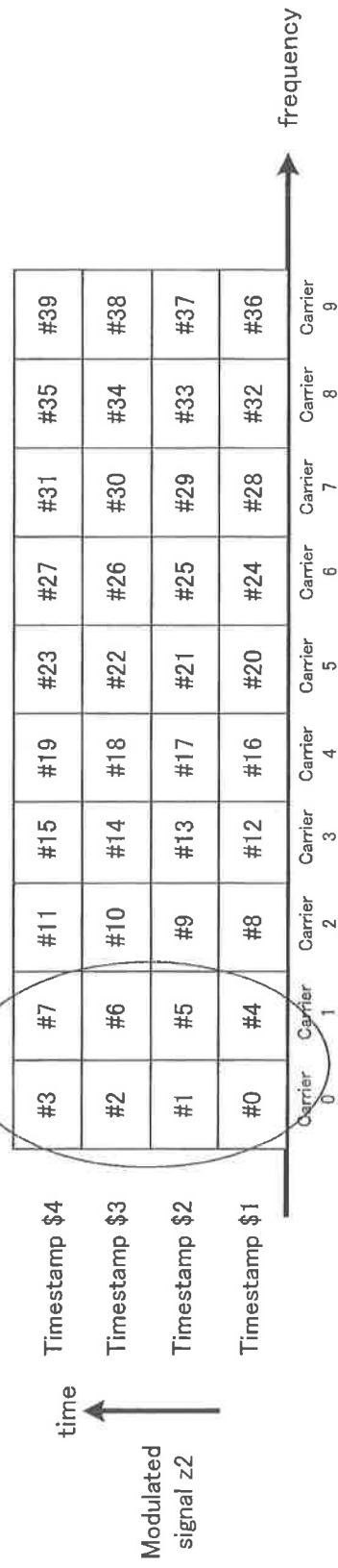


FIG. 19B

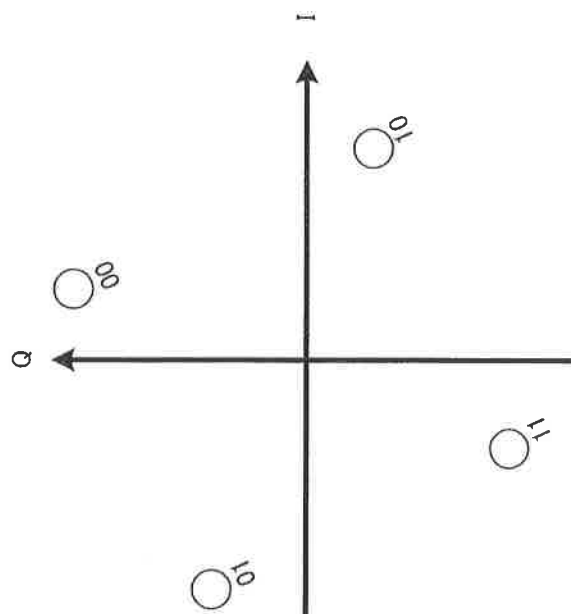


FIG. 19A

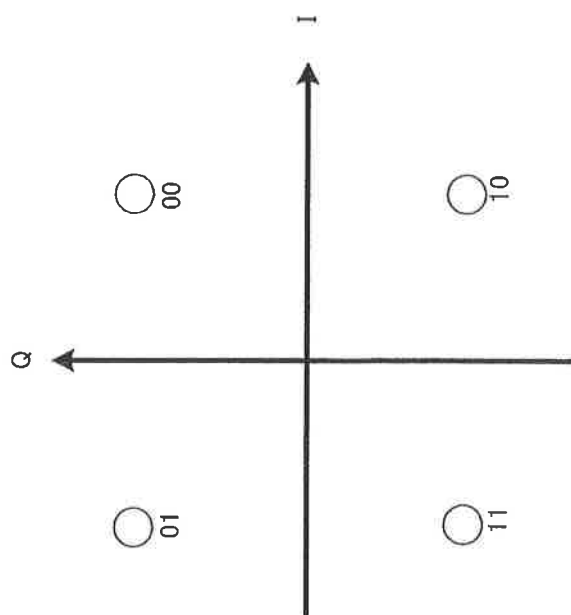


FIG. 20B

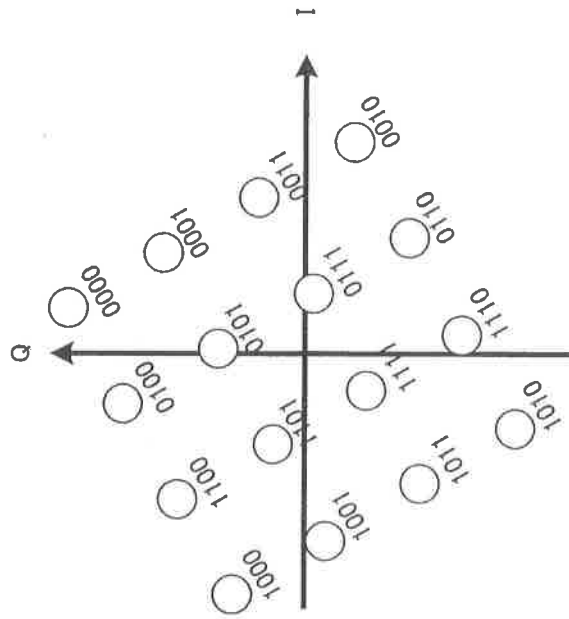


FIG. 20A

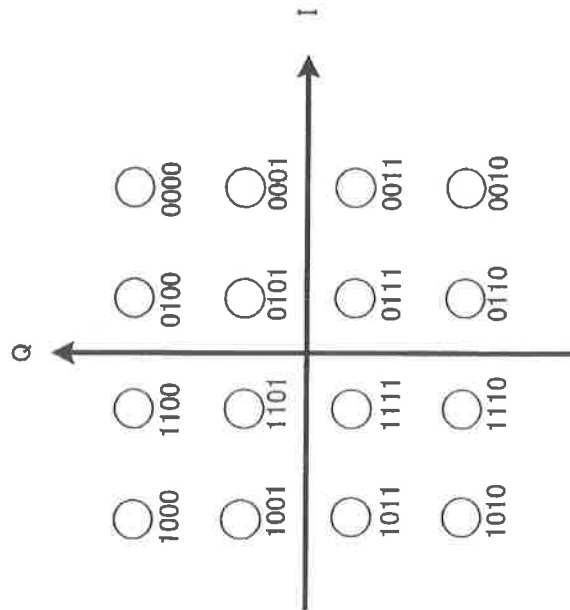


FIG. 21

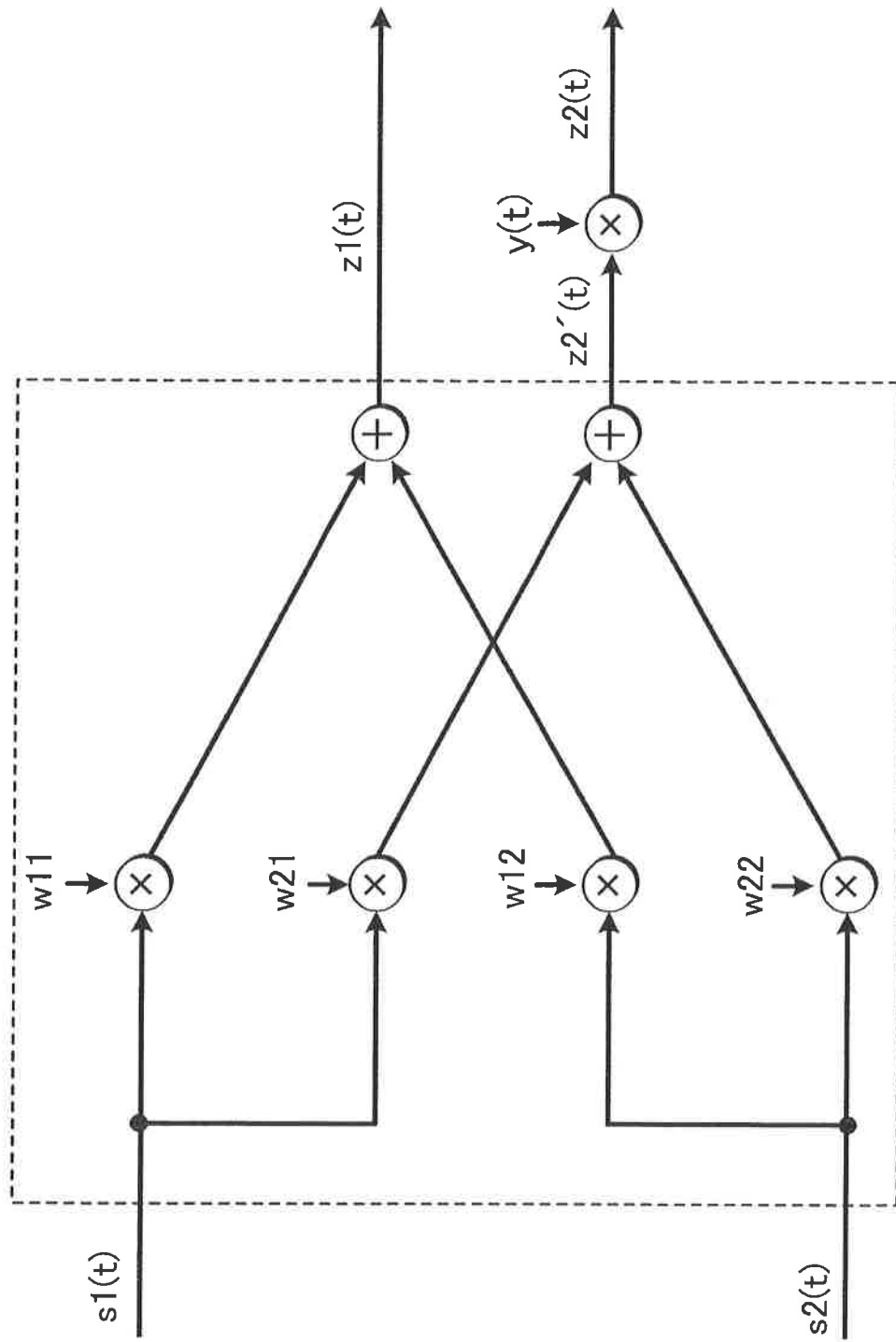


FIG. 22

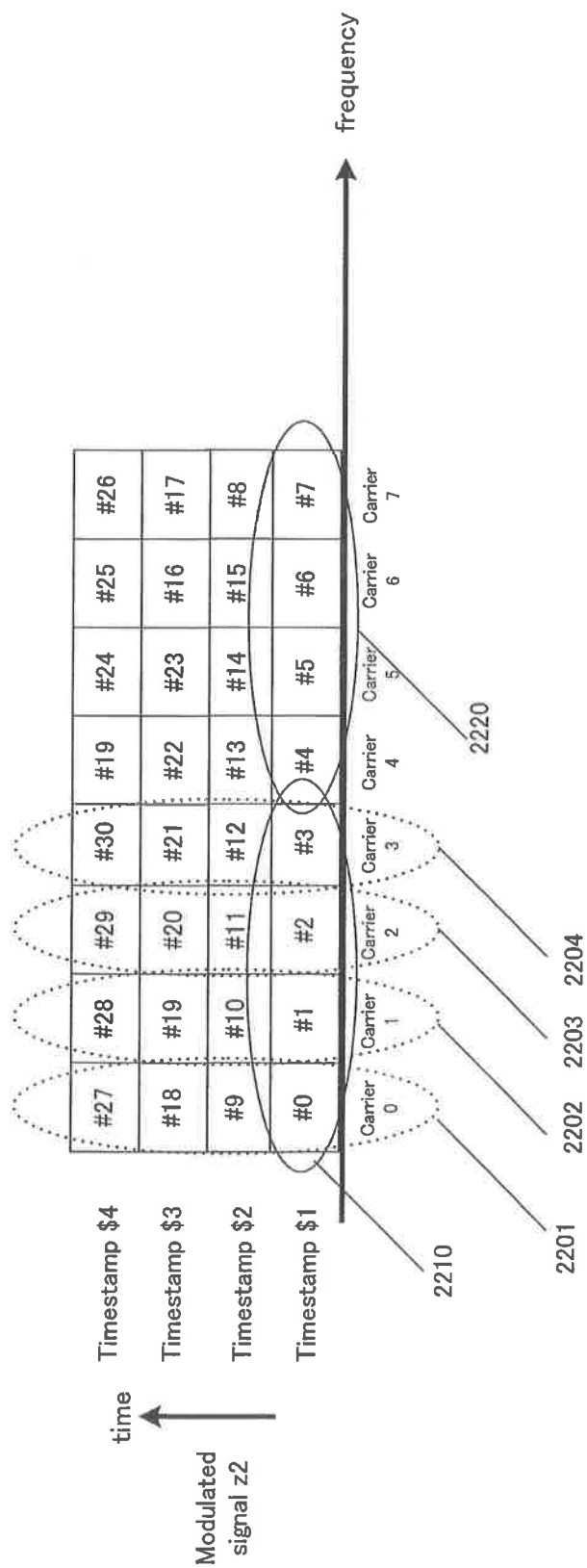


FIG. 23

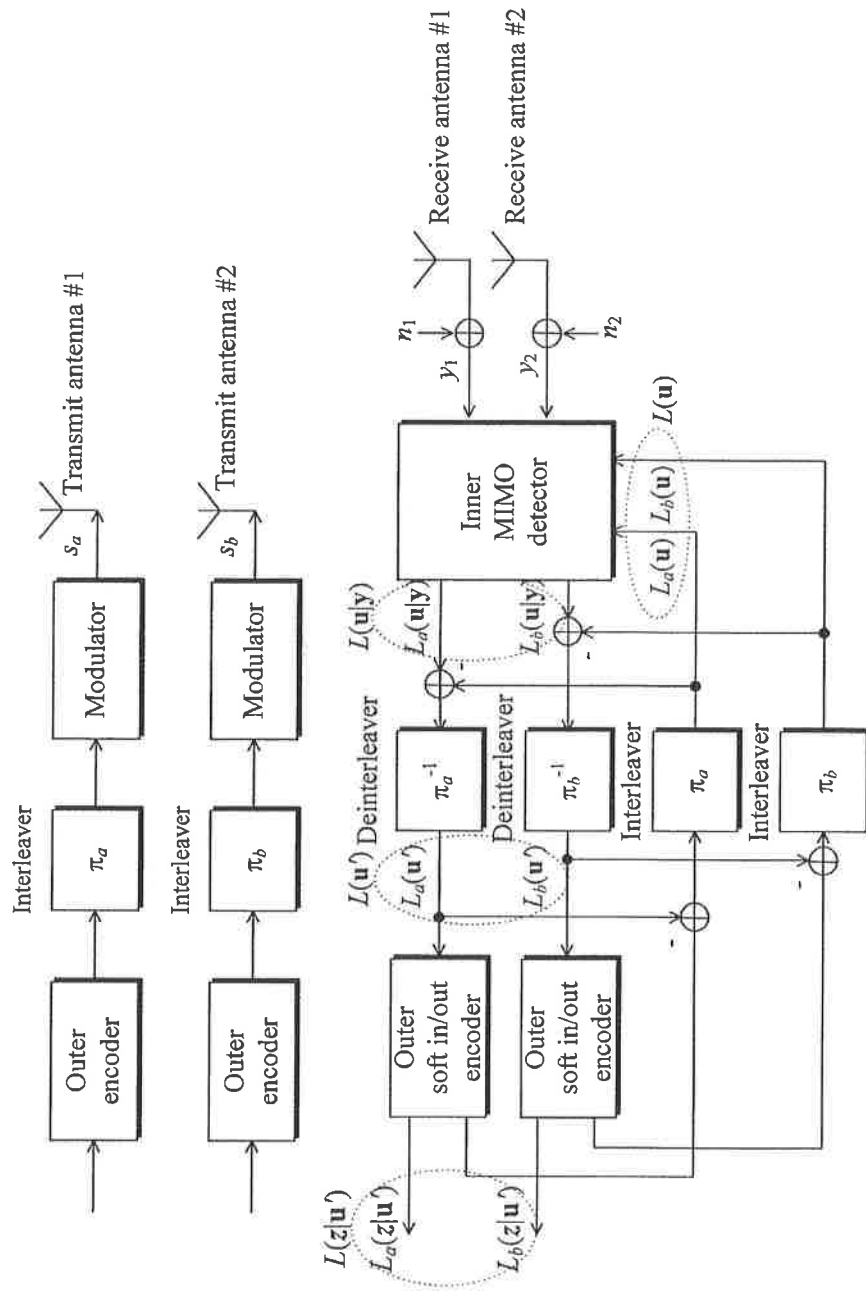


FIG. 24B

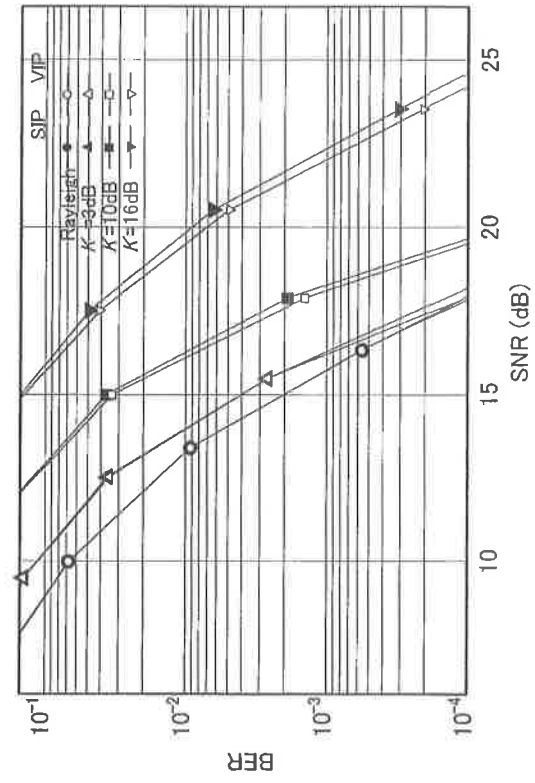


FIG. 24A

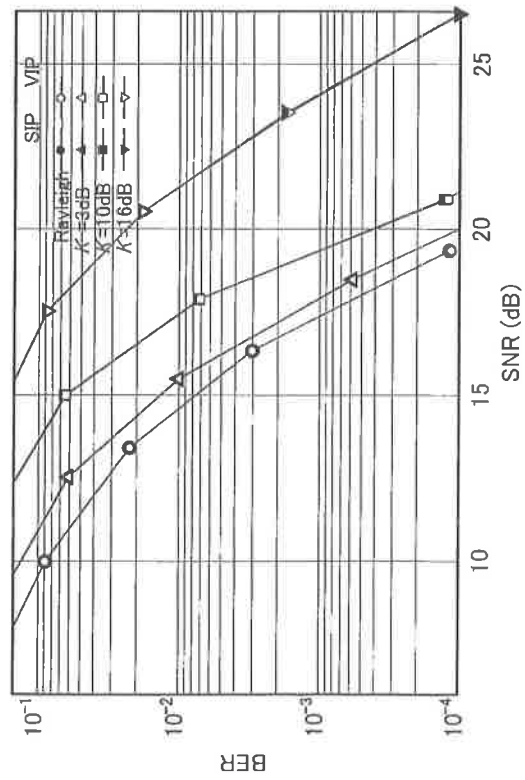
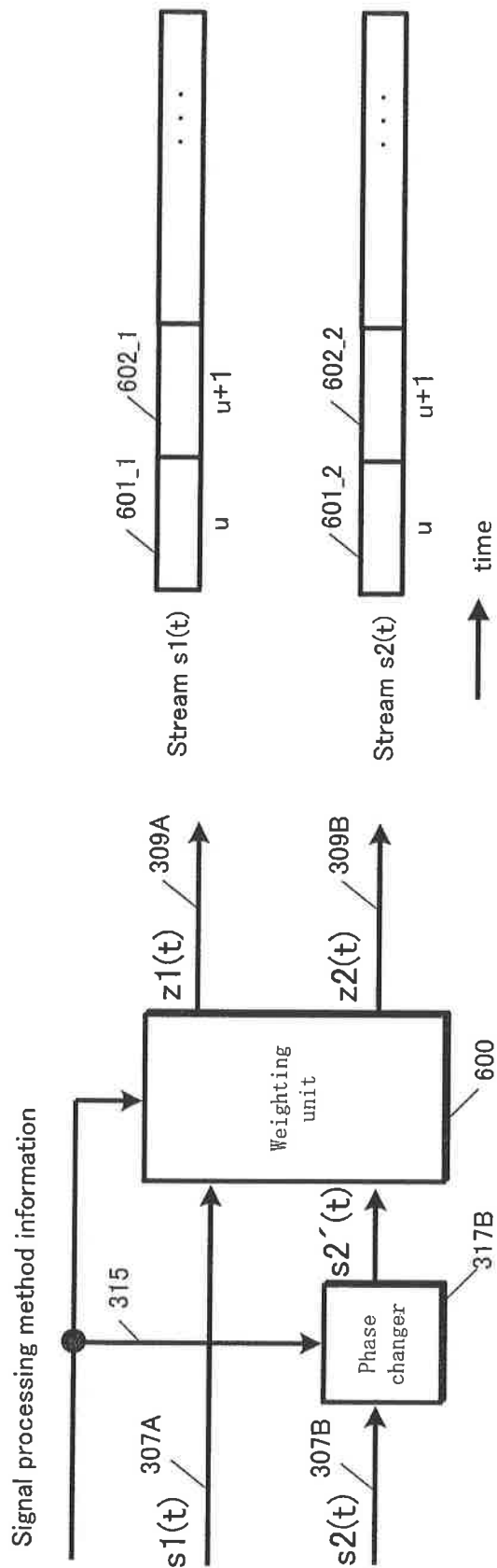


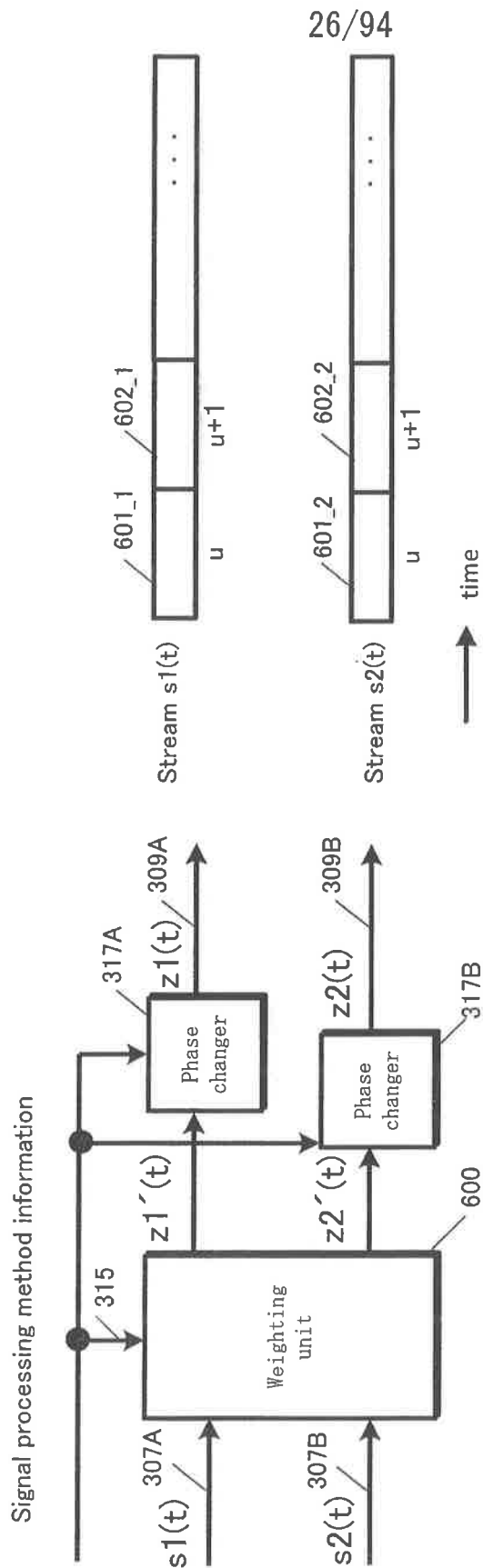
FIG. 25



Sample variations of phase changing formula $y(t)$ used by phase changer

timestamp u	timestamp $u+1$	timestamp $u+2$	timestamp $u+3$	timestamp $u+k$
$y(u) = e^{j0}$	$y(u+1) = e^{j\frac{\pi}{2}}$	$y(u+2) = e^{j\pi}$	$y(u+3) = e^{j\frac{3\pi}{2}}$	$y(u+k) = e^{j\frac{k\pi}{2}}$

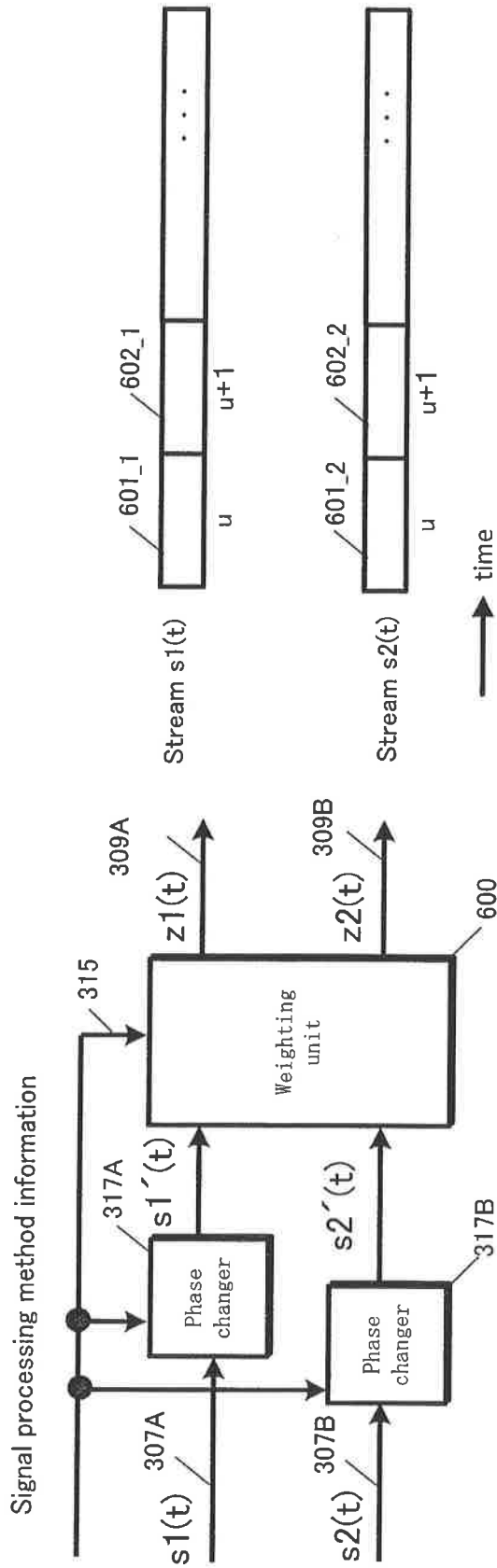
FIG. 26



Sample variations of phase changing formulae $y_1(t)$, $y_2(t)$ used by phase changers

timestamp u	timestamp $u+1$	timestamp $u+2$	timestamp $u+3$	timestamp $u+k$
$y_1(u) = e^{j0}$	$y_1(u+1) = e^{j\frac{\pi}{4}}$	$y_1(u+2) = e^{j\frac{\pi}{2}}$	$y_1(u+3) = e^{j\frac{3\pi}{4}}$	$y_1(u+k) = e^{j\frac{k\pi}{4}}$
$y_2(u) = e^{-j\frac{3\pi}{4}}$	$y_2(u+1) = e^{-j\frac{\pi}{4}}$	$y_2(u+2) = e^{-j\pi}$	$y_2(u+3) = e^{-j\frac{5\pi}{4}}$	$y_2(u+k) = e^{j\left(-\frac{k\pi}{4} + \frac{\pi}{2}\right)}$

FIG. 27



Sample variations of phase changing formulae $y_1(t)$, $y_2(t)$ used by phase changers

timestamp u	timestamp $u+1$	timestamp $u+2$	timestamp $u+3$	timestamp $u+k$
$y_1(u) = e^{j0}$	$y_1(u+1) = e^{j\frac{\pi}{4}}$	$y_1(u+2) = e^{j\frac{\pi}{2}}$	$y_1(u+3) = e^{j\frac{3\pi}{4}}$	$y_1(u+k) = e^{j\frac{k\pi}{4}}$
$y_2(u) = e^{-j\frac{\pi}{2}}$	$y_2(u+1) = e^{-j\frac{3\pi}{4}}$	$y_2(u+2) = e^{-j\pi}$	$y_2(u+3) = e^{-j\frac{5\pi}{4}}$	$y_2(u+k) = e^{j\left(-\frac{k\pi}{4} - \frac{\pi}{2}\right)}$

FIG. 28

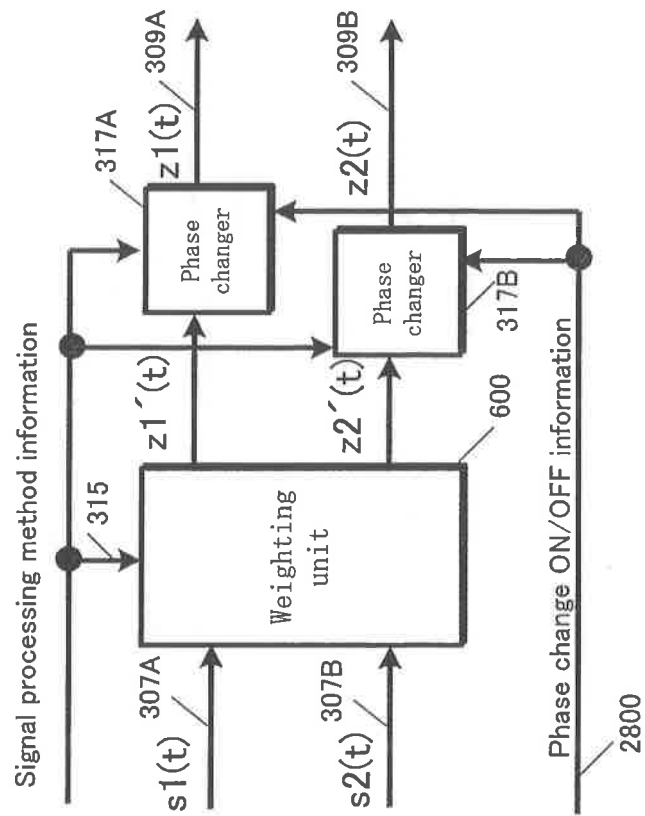


FIG. 29

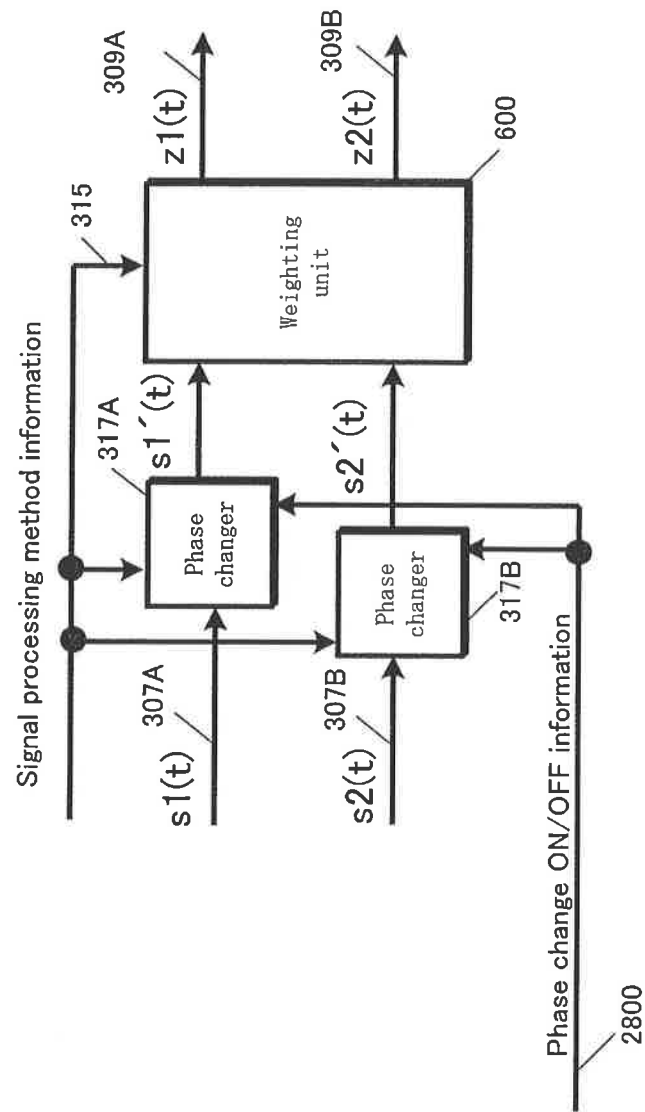


FIG. 30

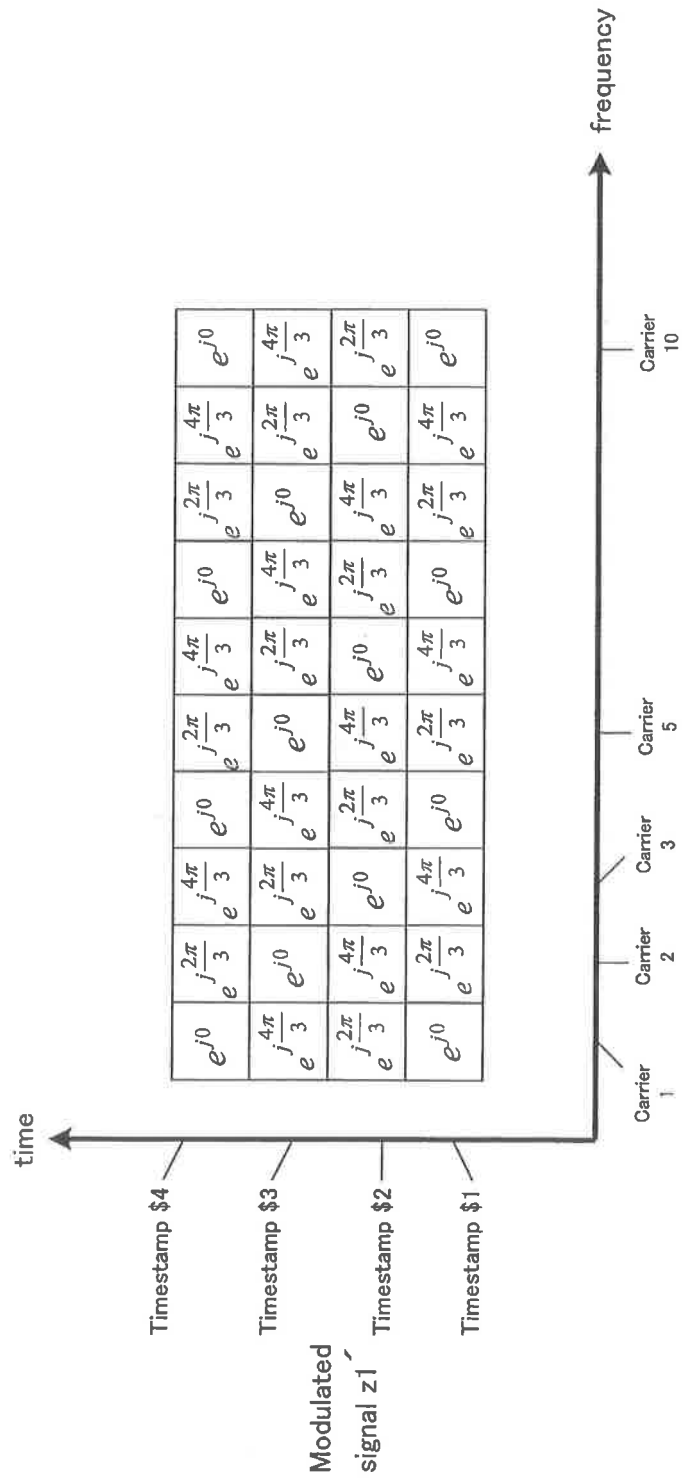


FIG. 31

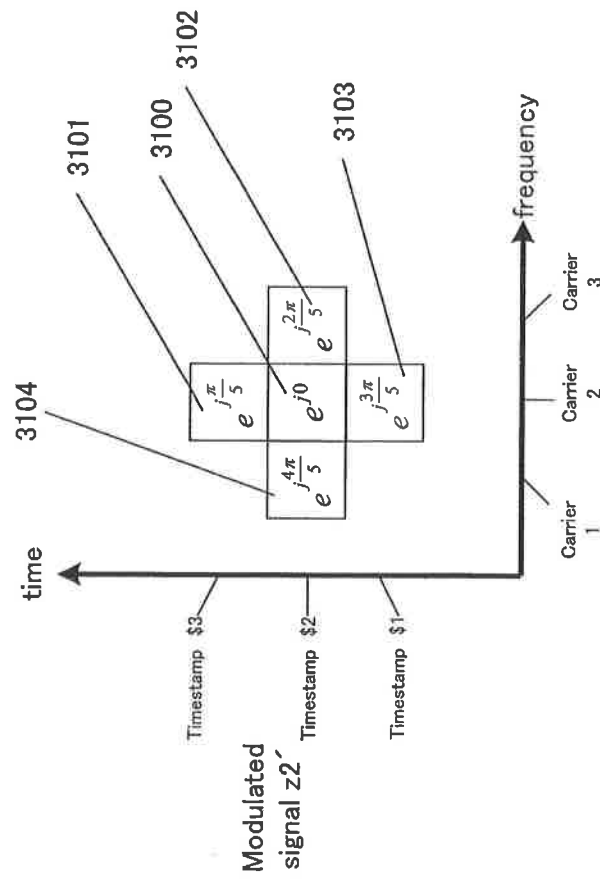


FIG. 32

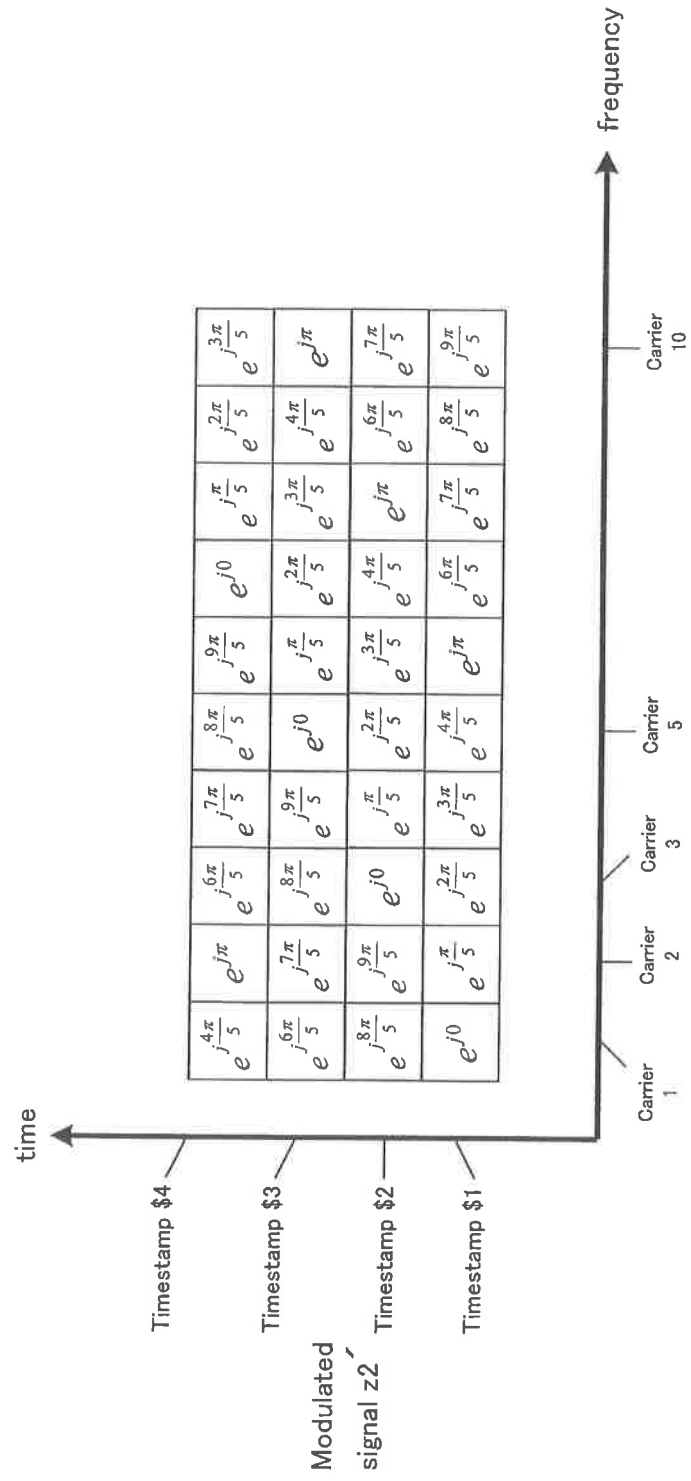


FIG. 33

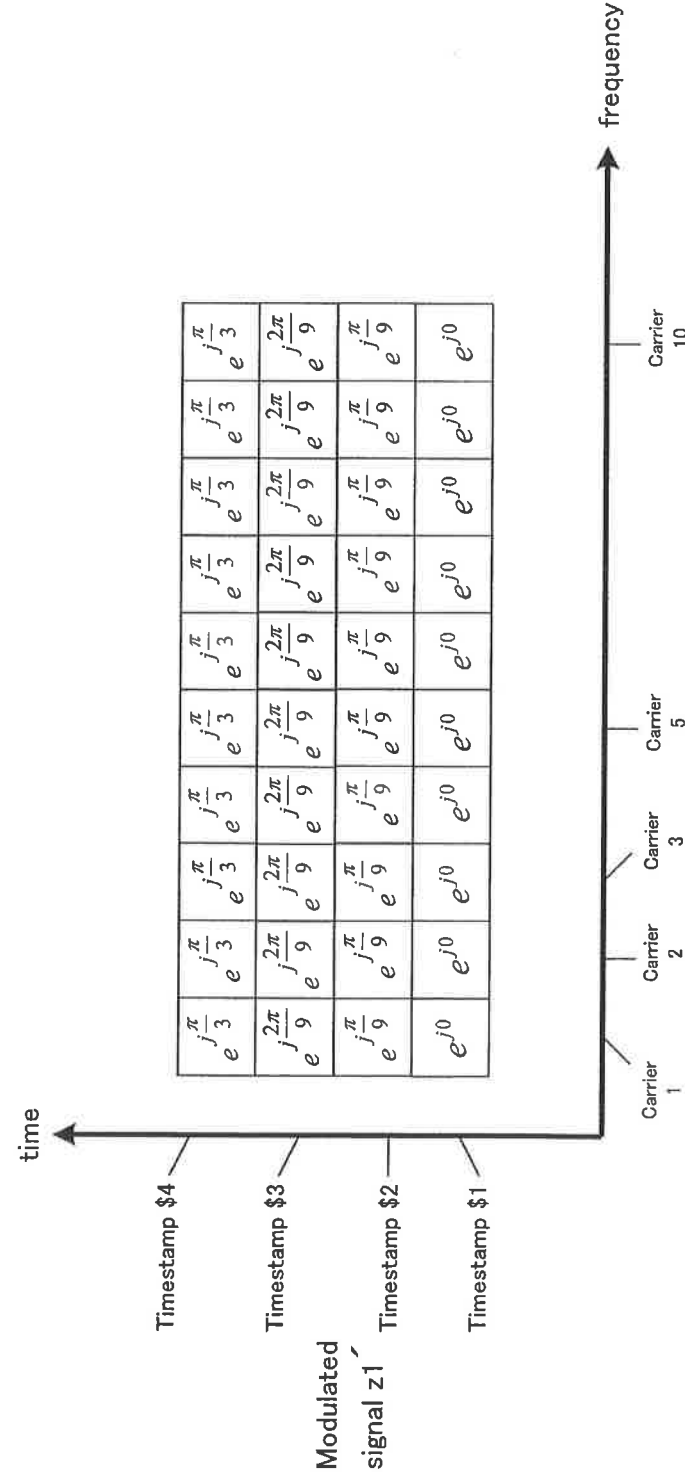


FIG. 34

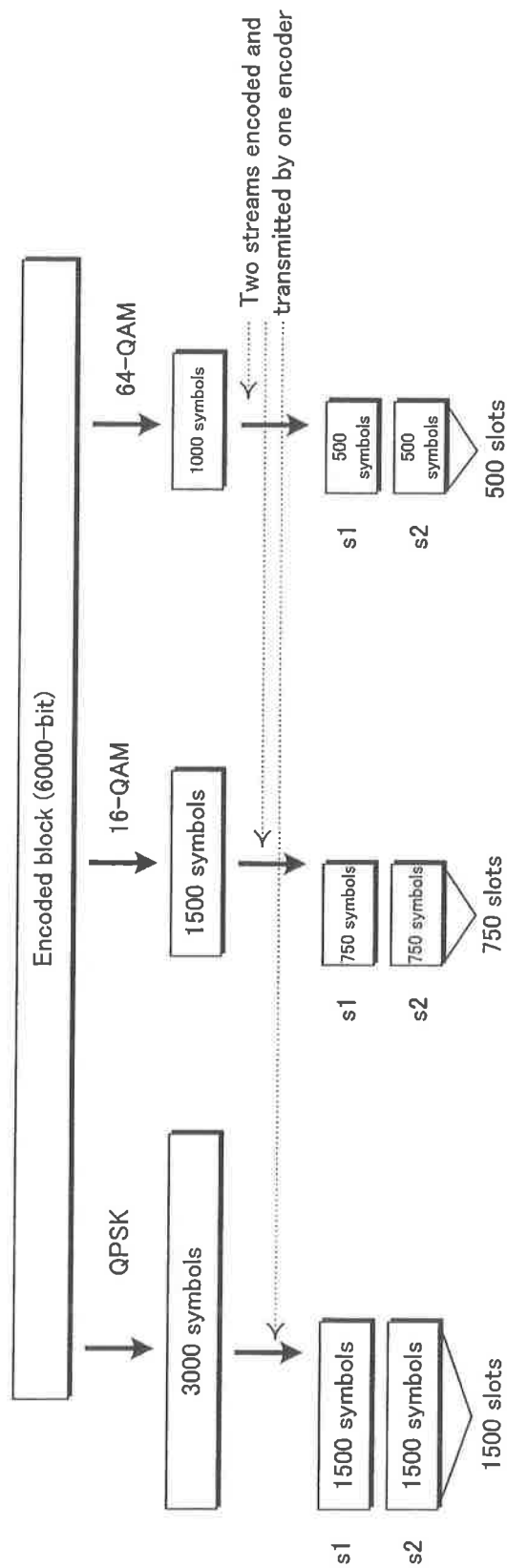
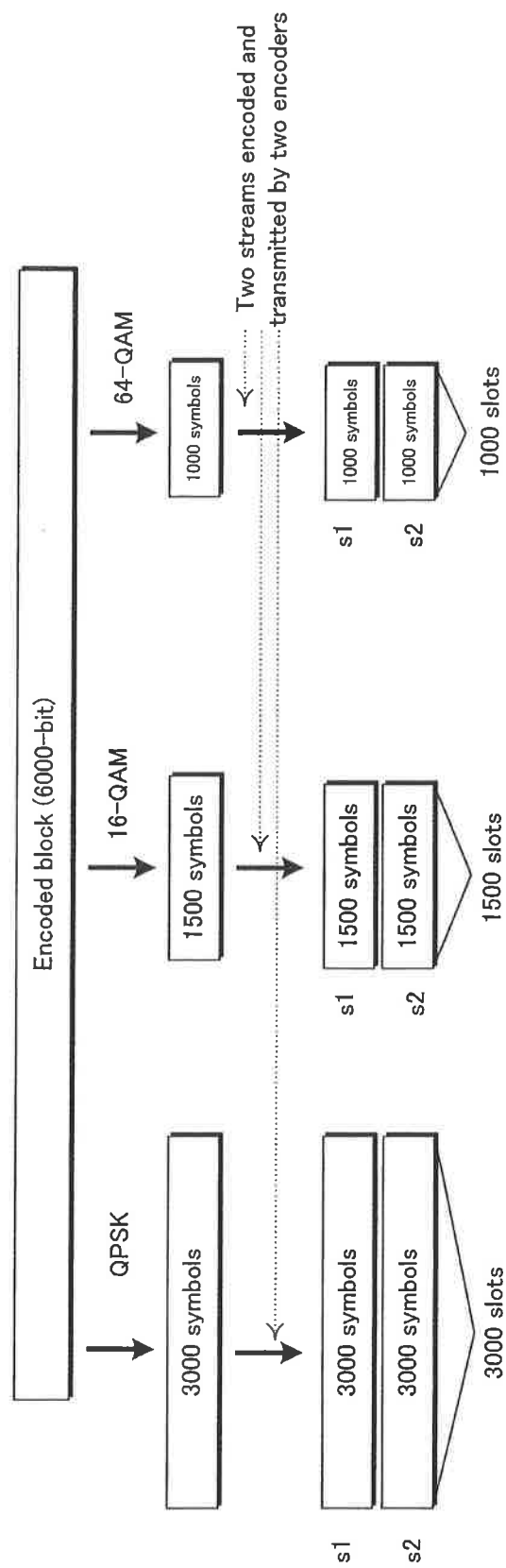
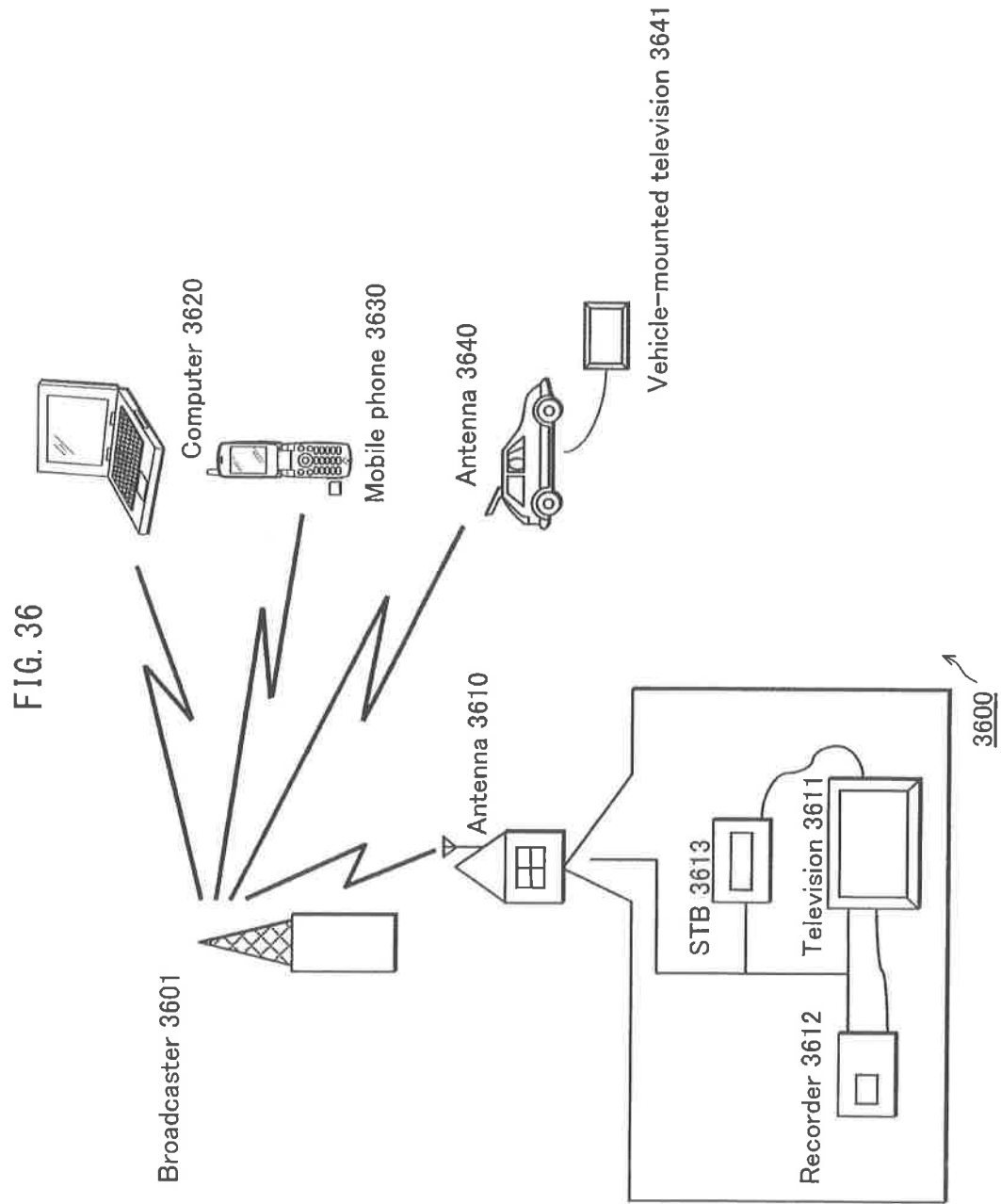


FIG. 35





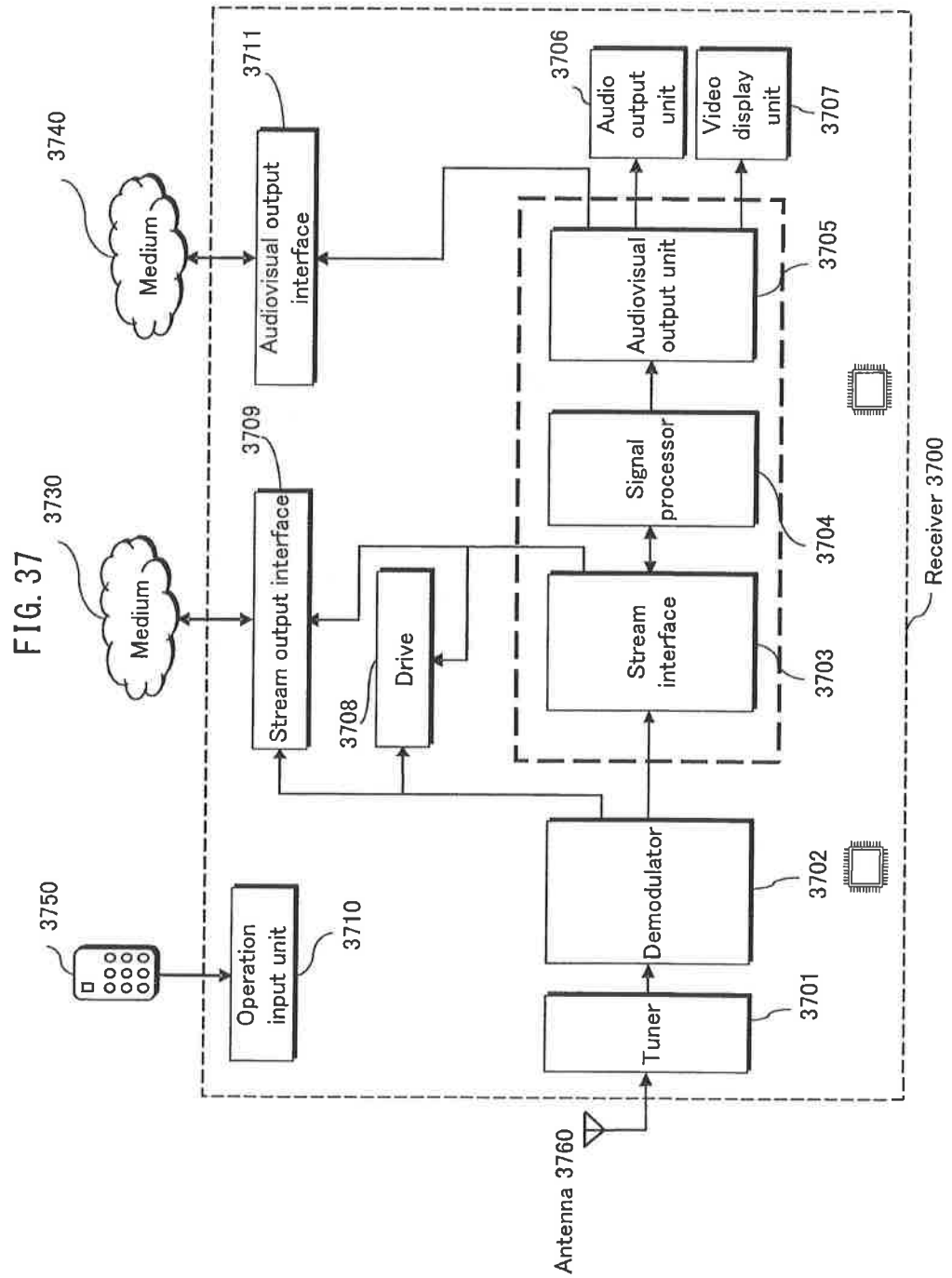


FIG. 38

Video stream (PID=0x1011 Main video)
Audio stream (PID=0x1100)
Audio stream (PID=0x1101)
Presentation graphics stream (PID=0x1200)
Presentation graphics stream (PID=0x1201)
Interactive graphics stream (PID=0x1400)
Video stream (PID=0x1B00 Sub-video)
Video stream (PID=0x1B01 Sub-video)

FIG. 39

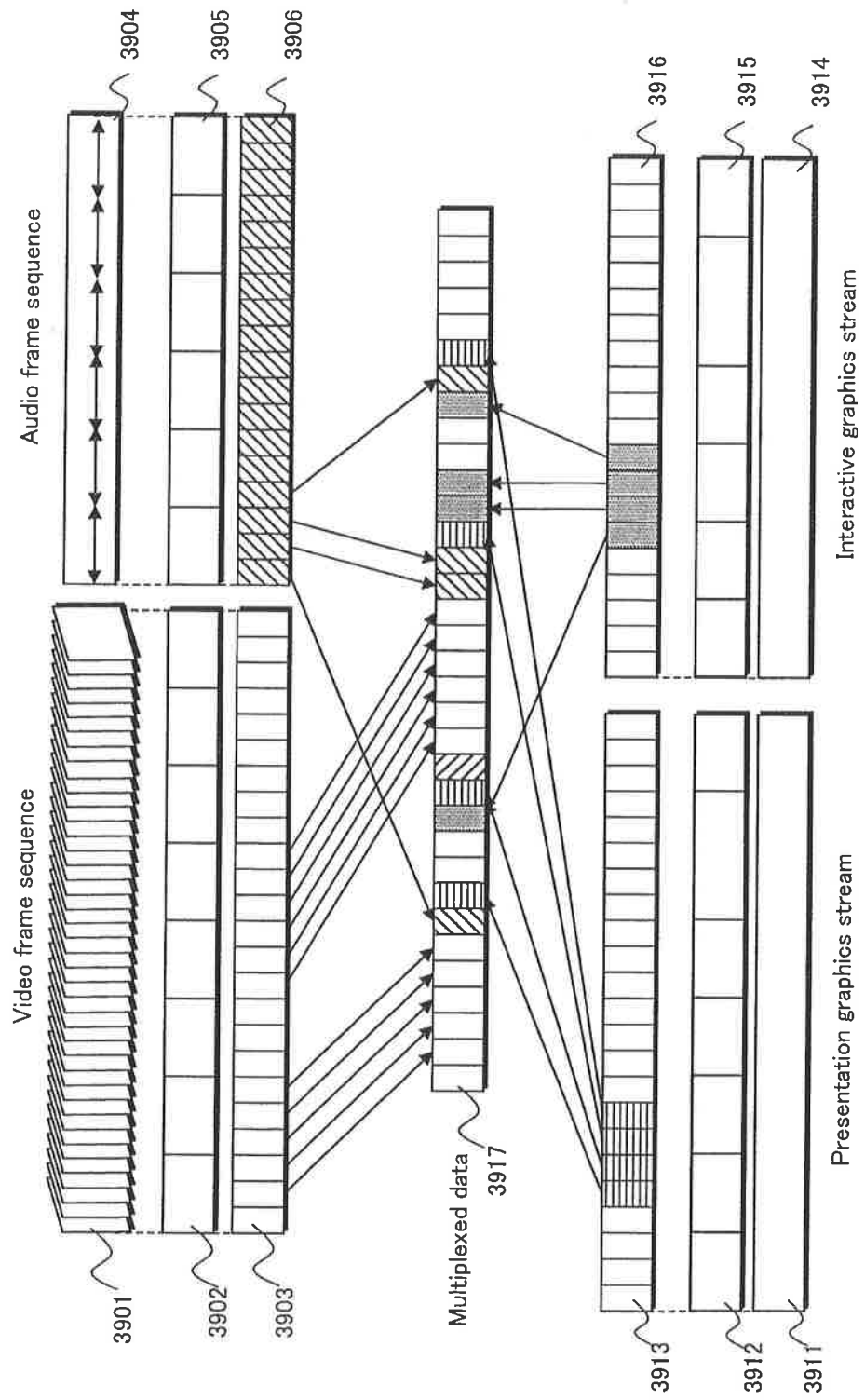


FIG. 40

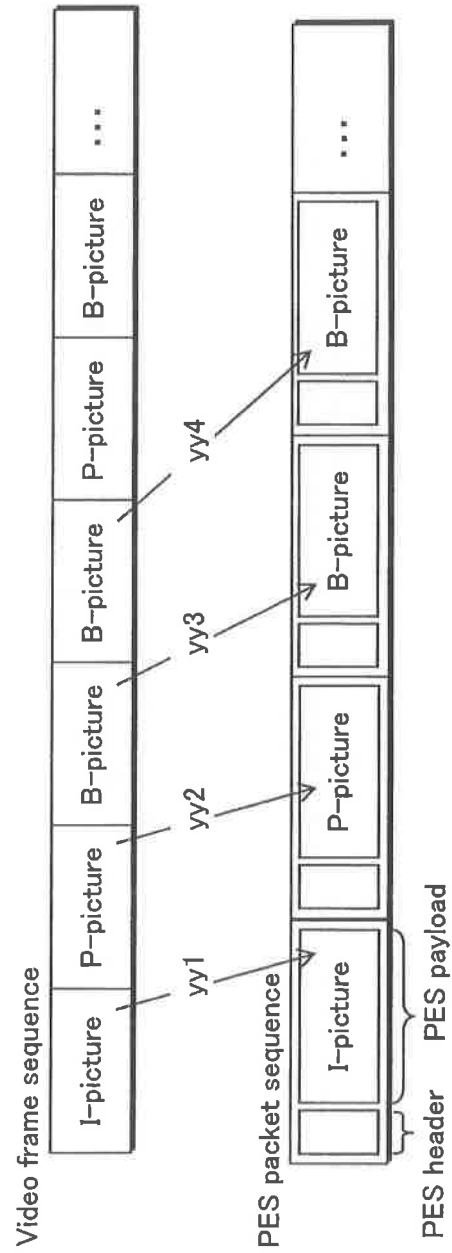


FIG. 41

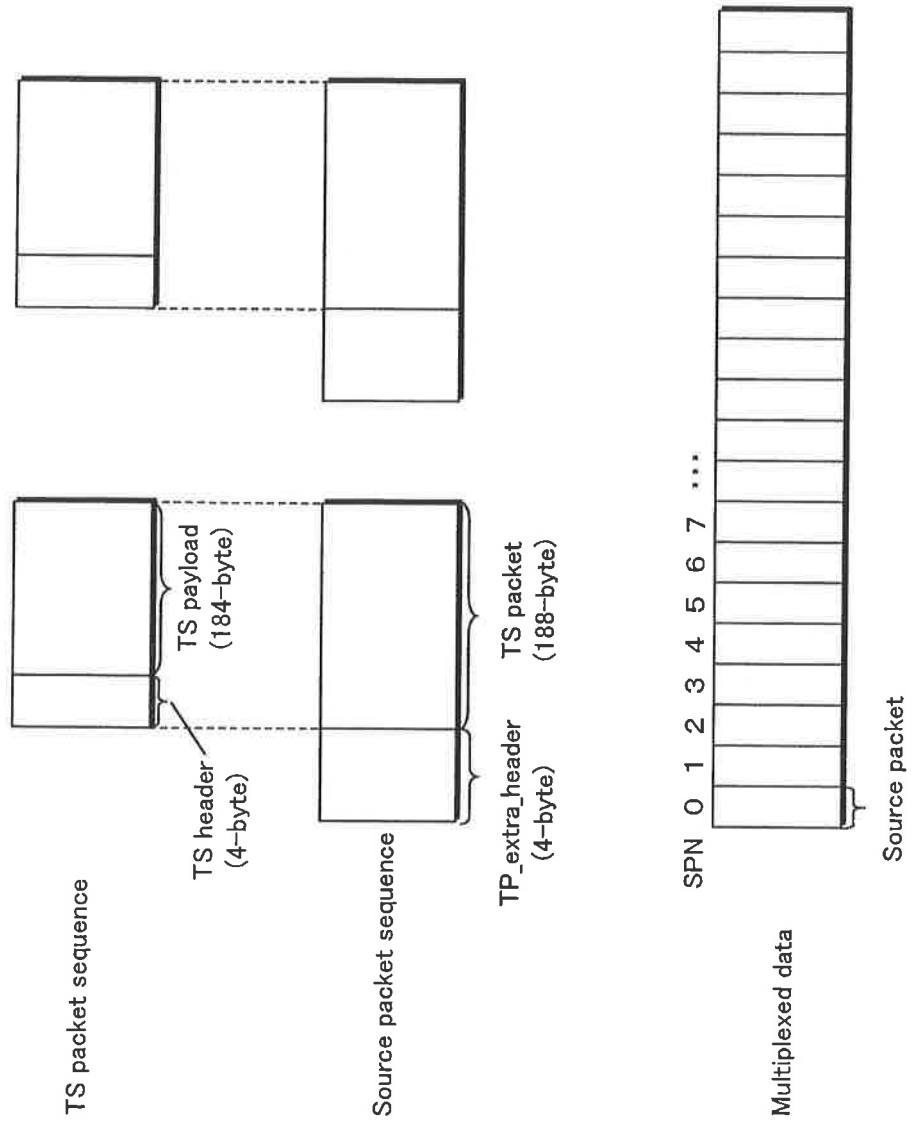


FIG. 42

PMT data structure

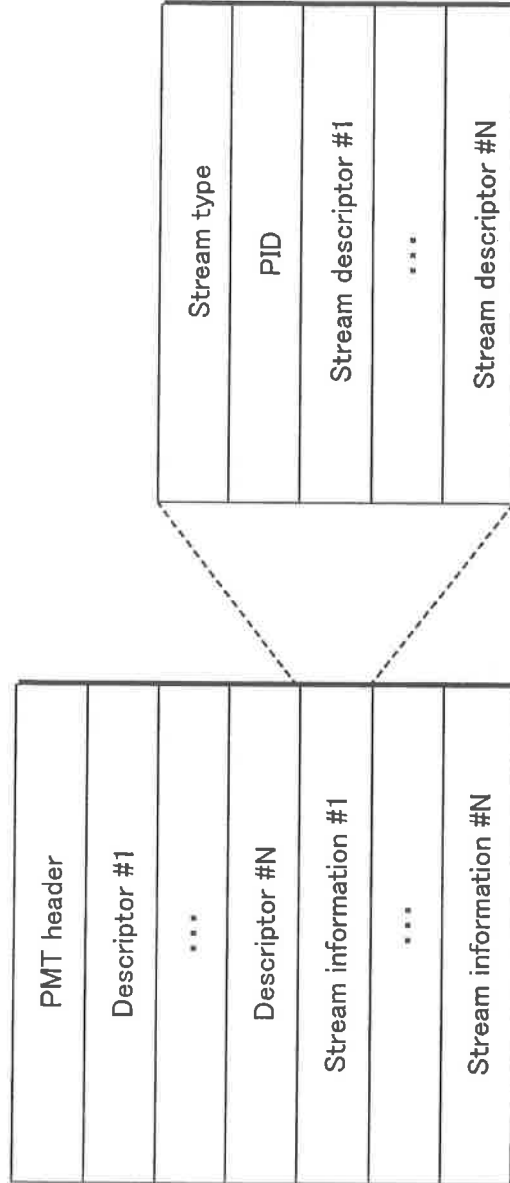


FIG. 43

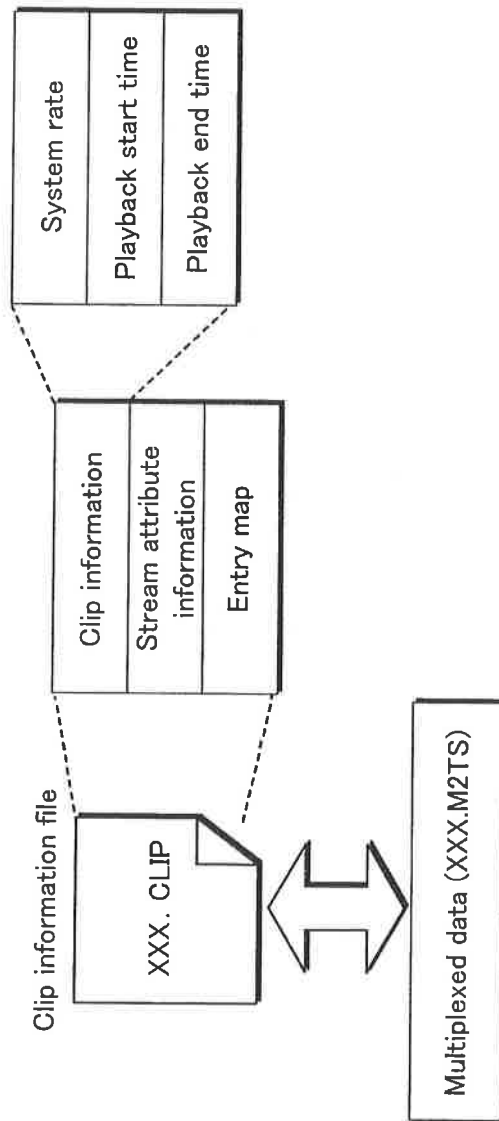


FIG. 44

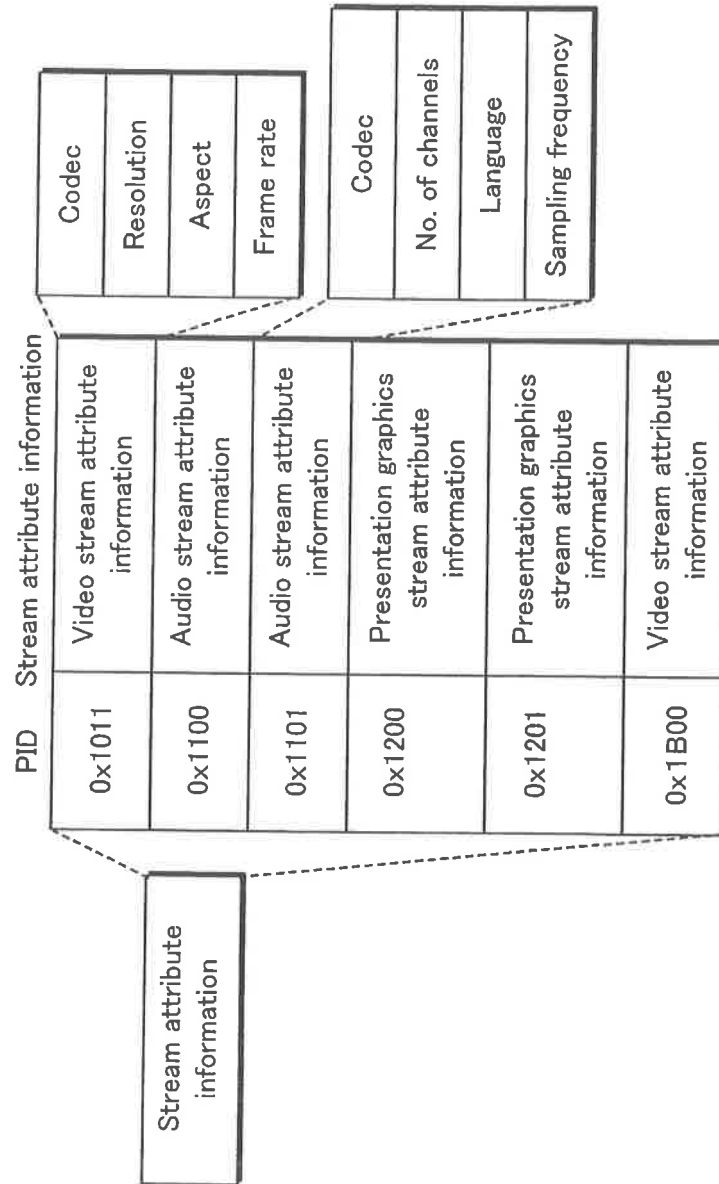
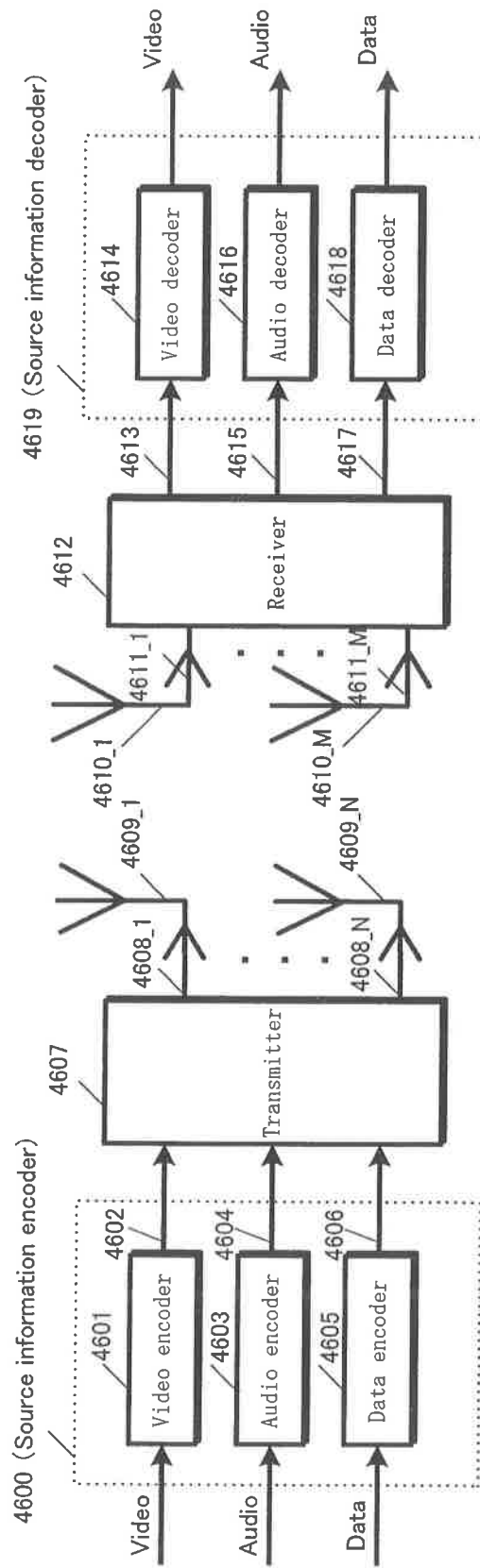
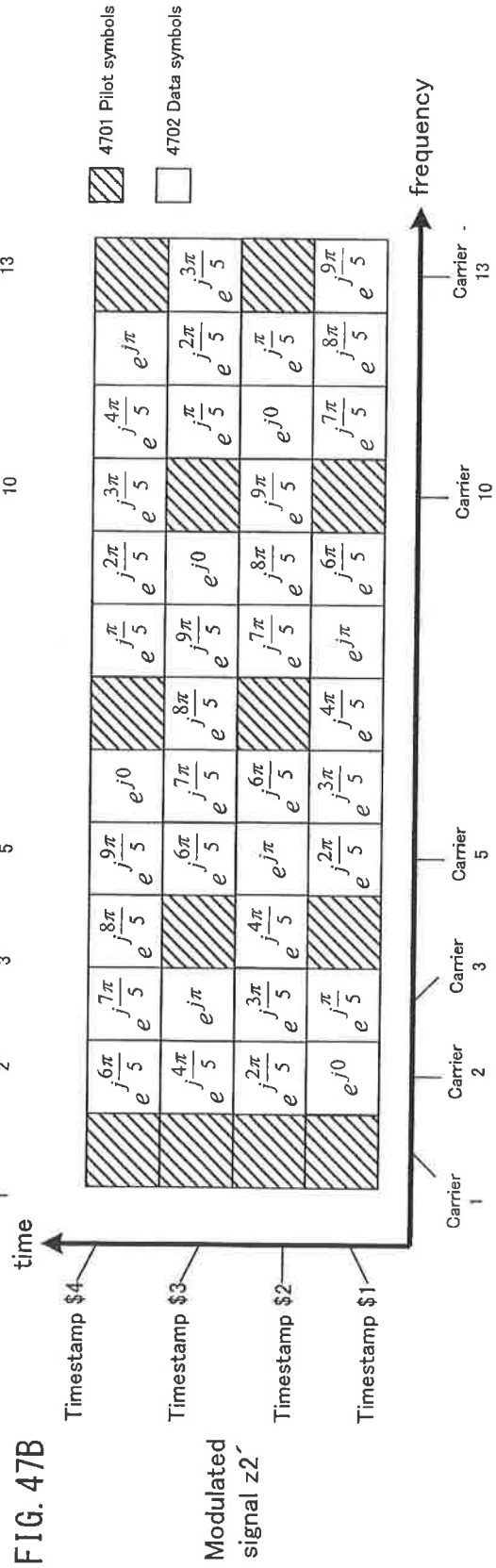
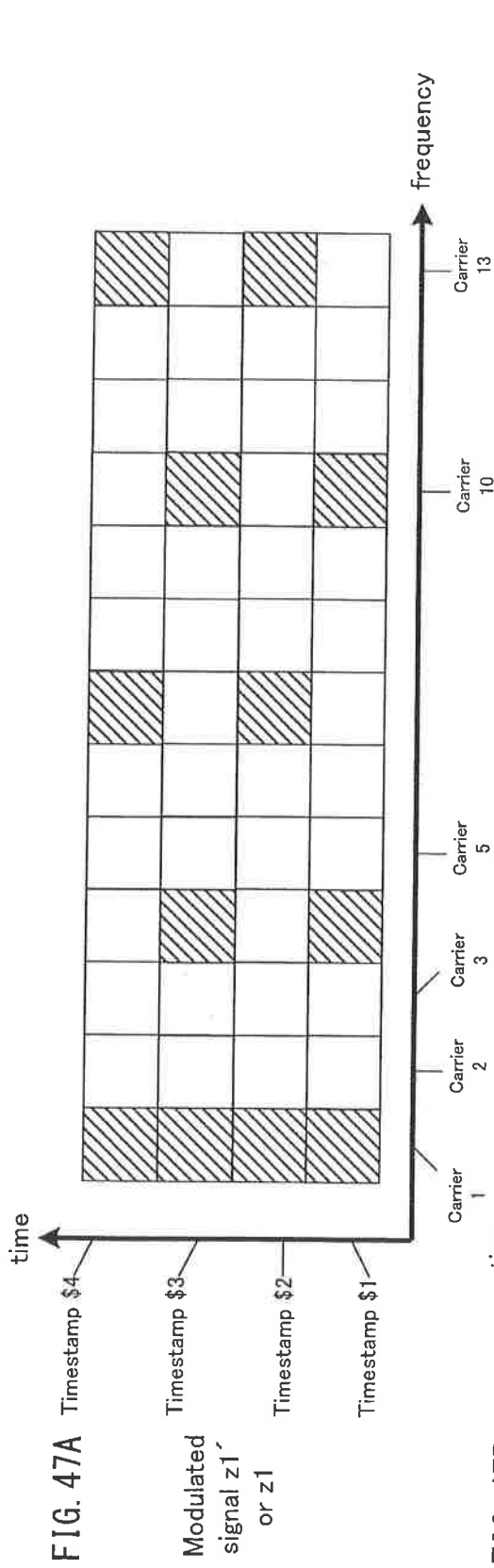
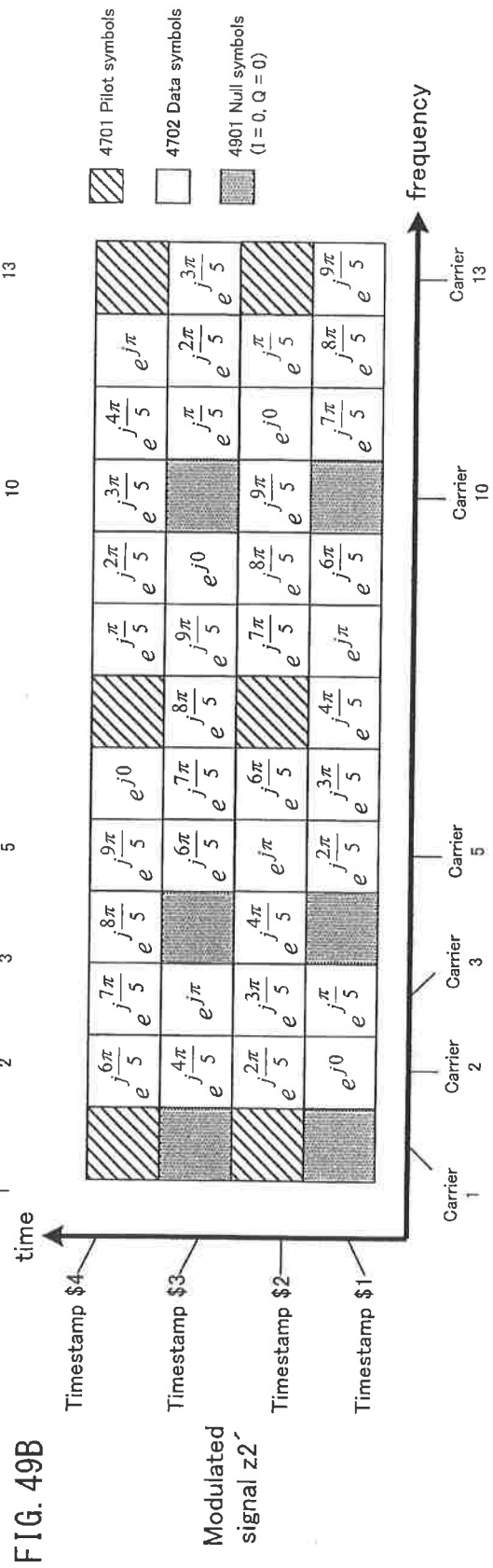
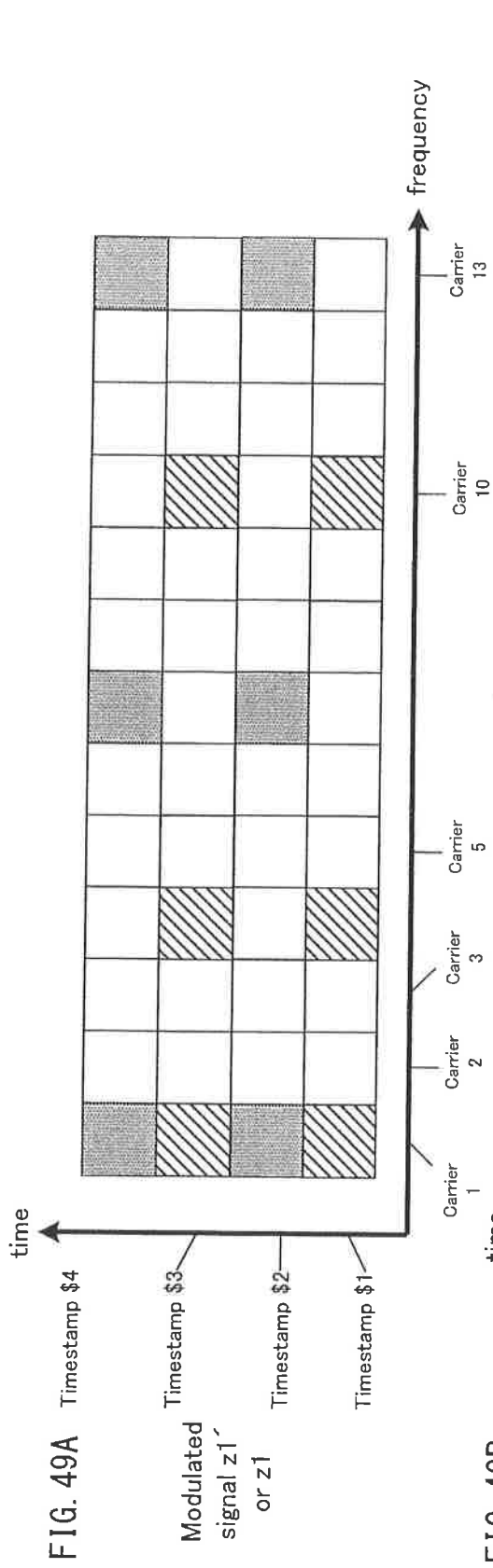


FIG. 46









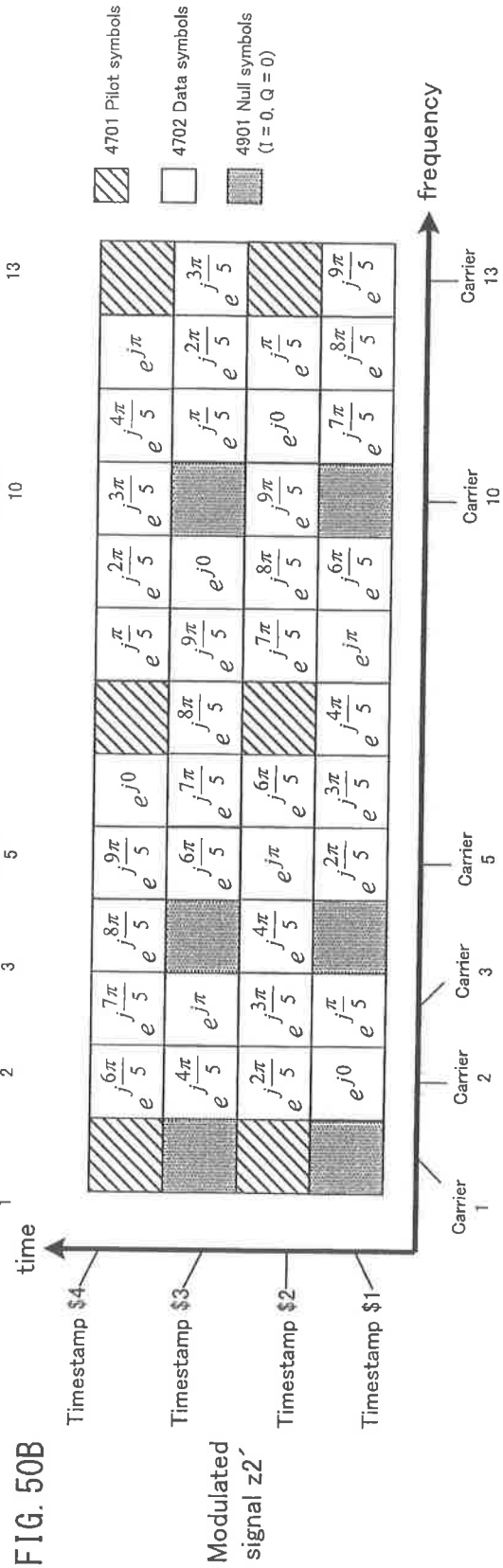
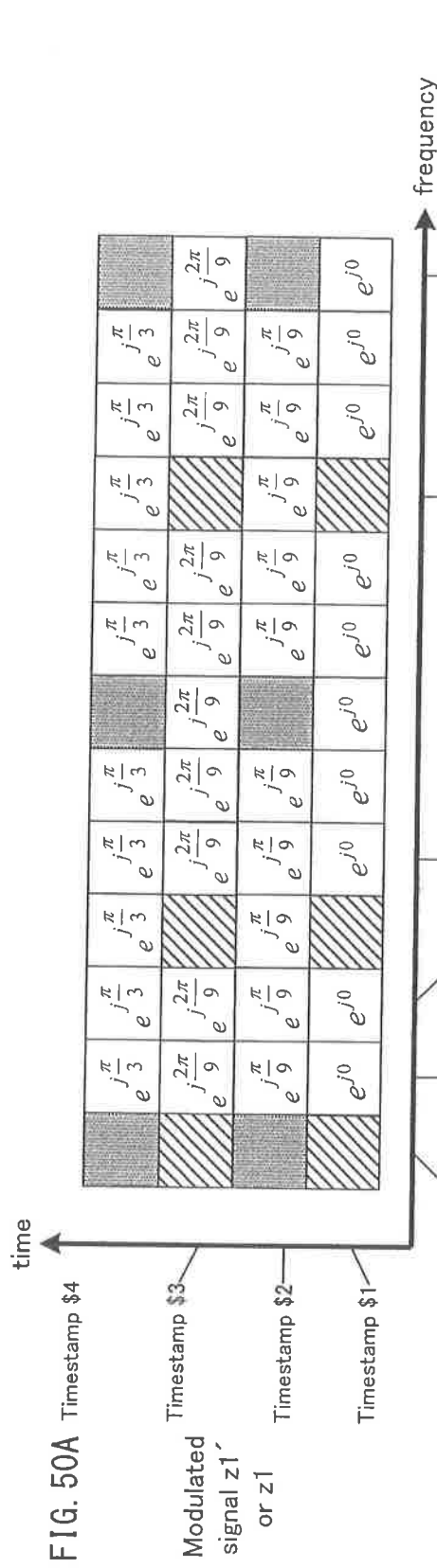


FIG. 51

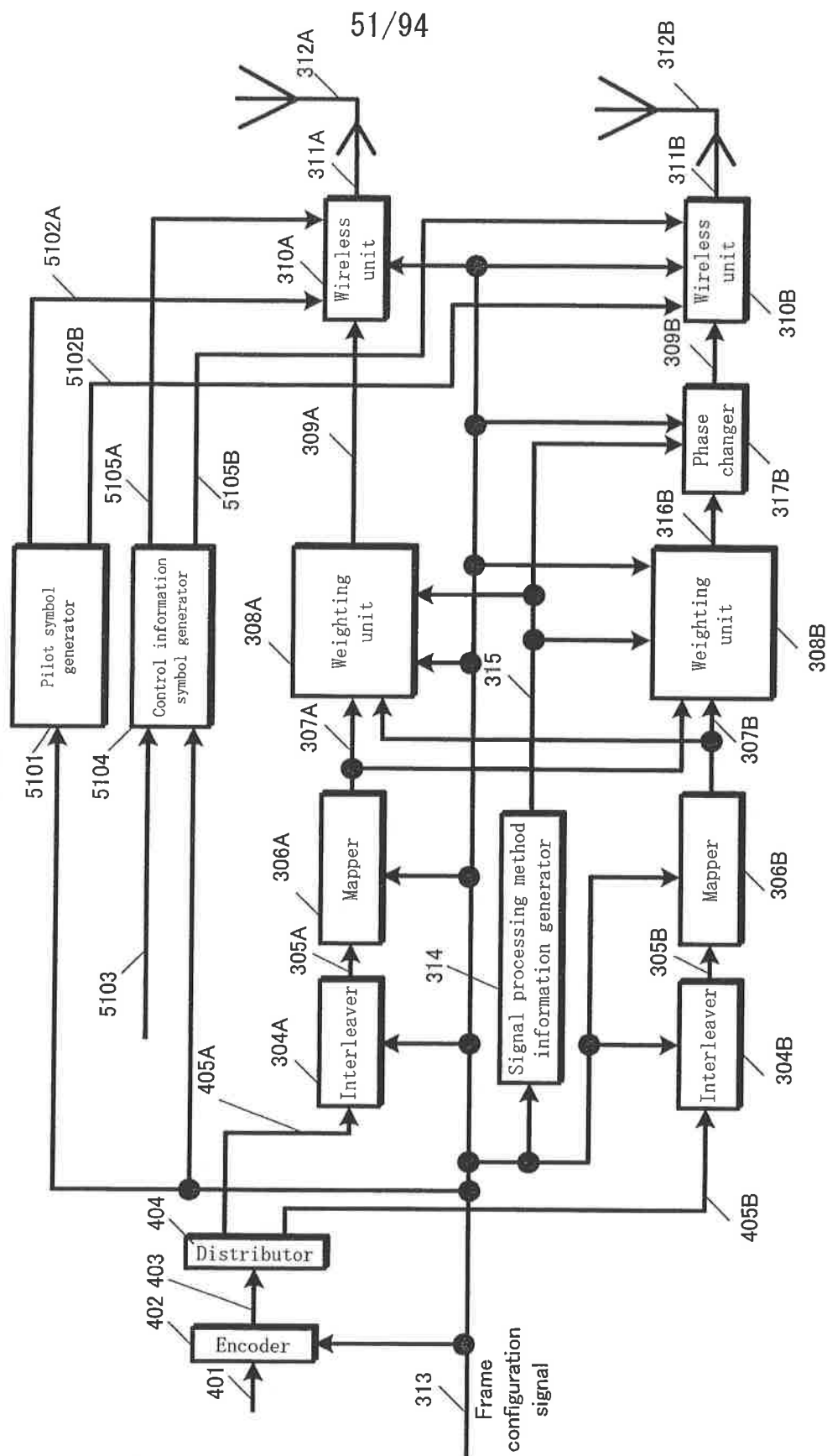


FIG. 52

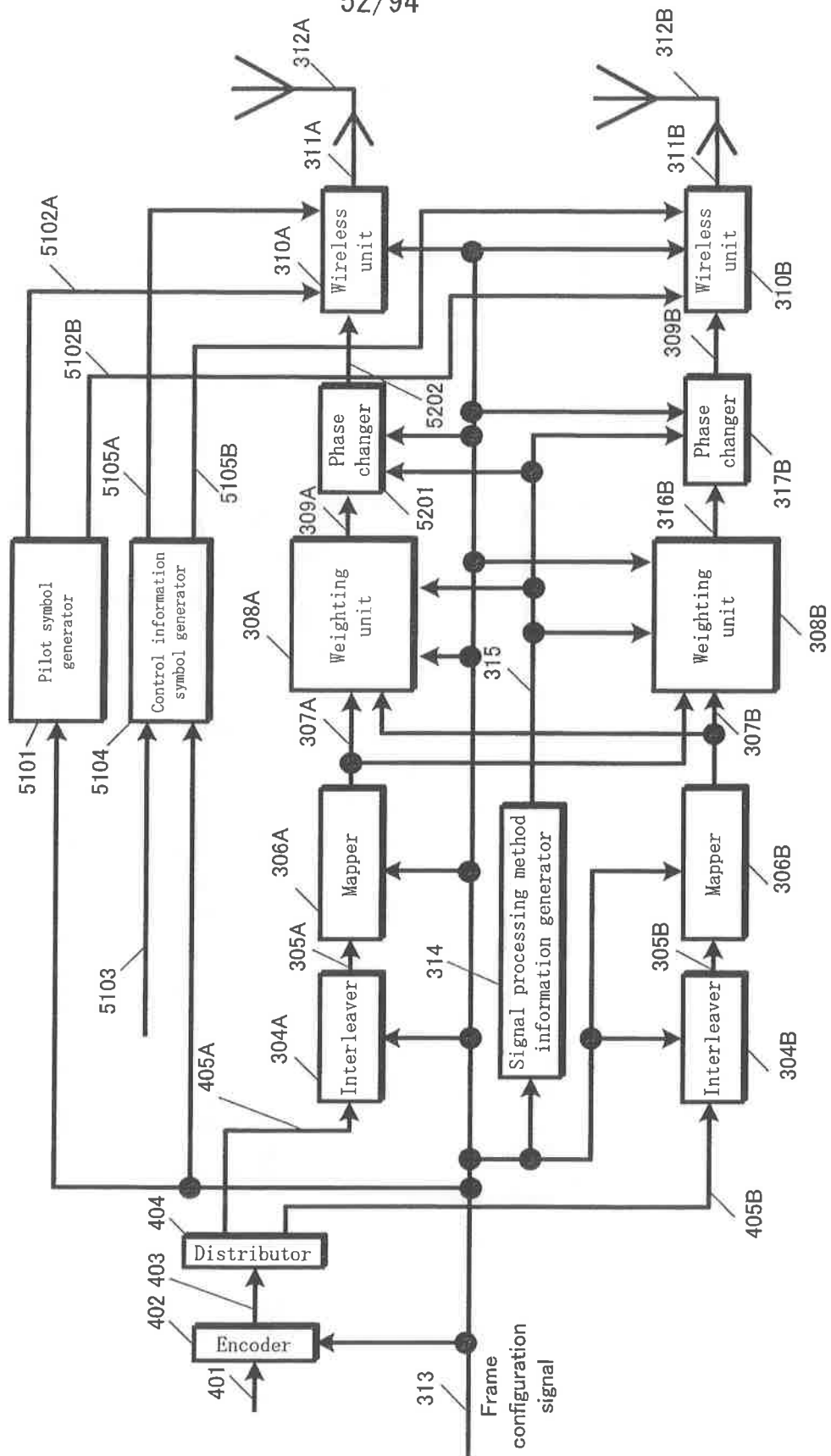


FIG. 54

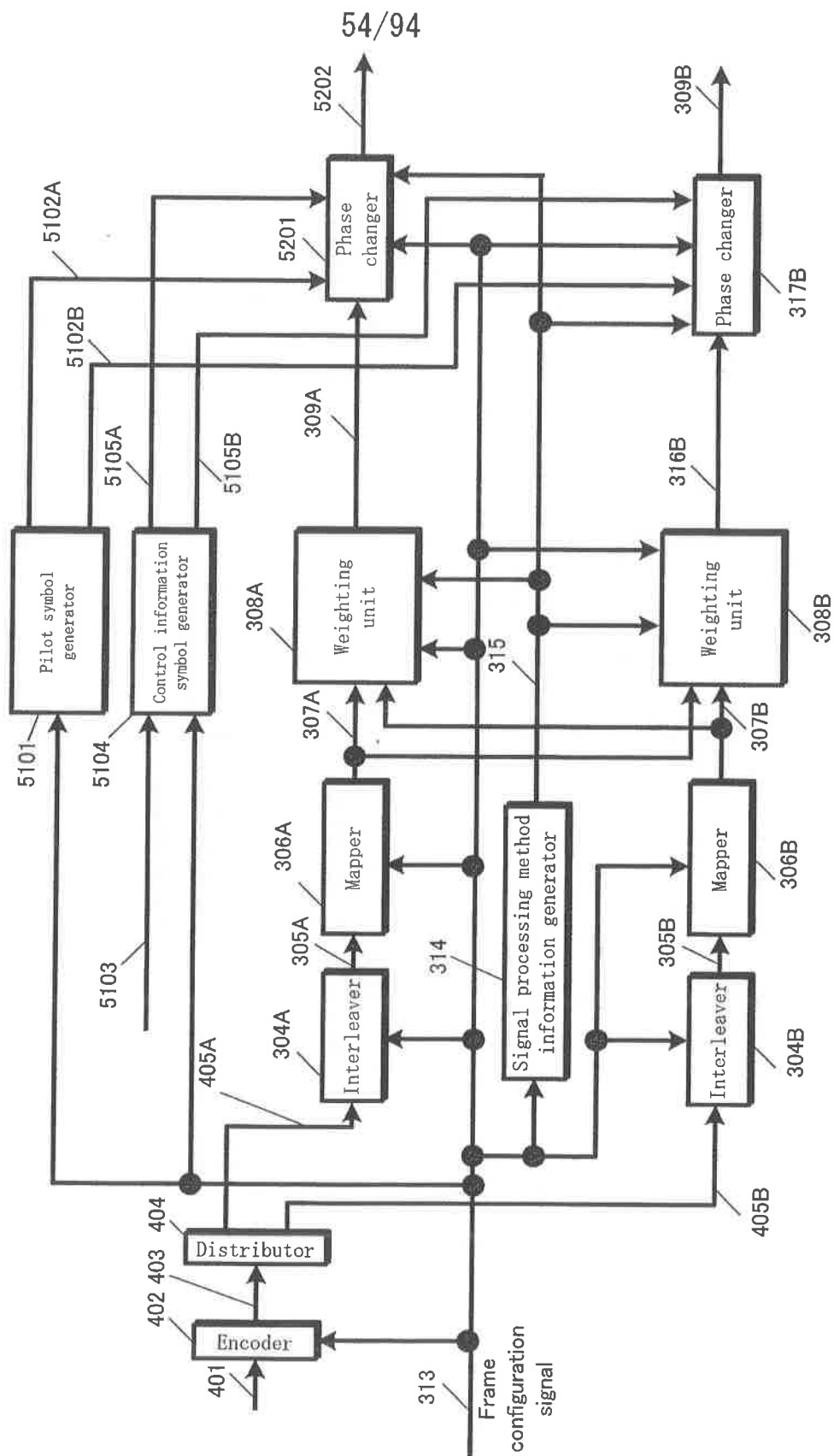


FIG. 55

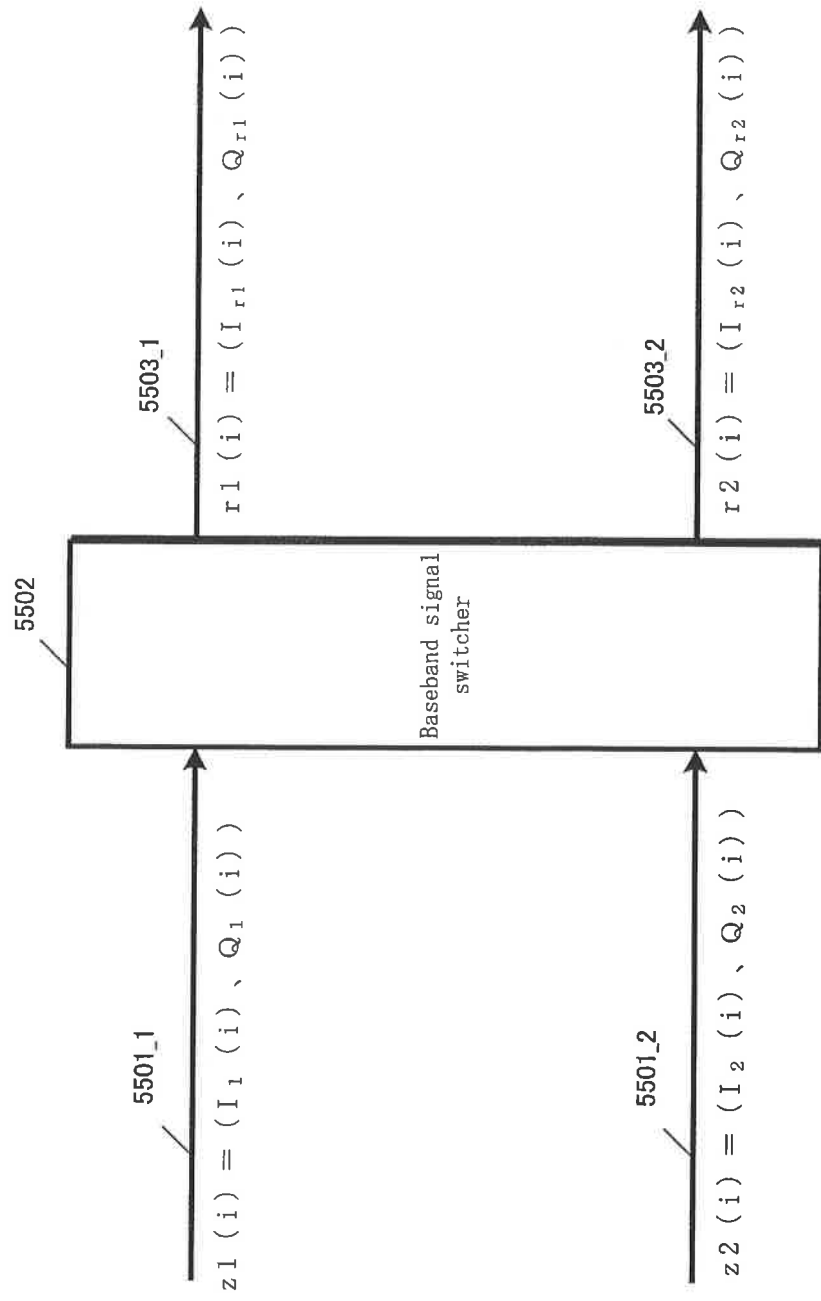


FIG. 56

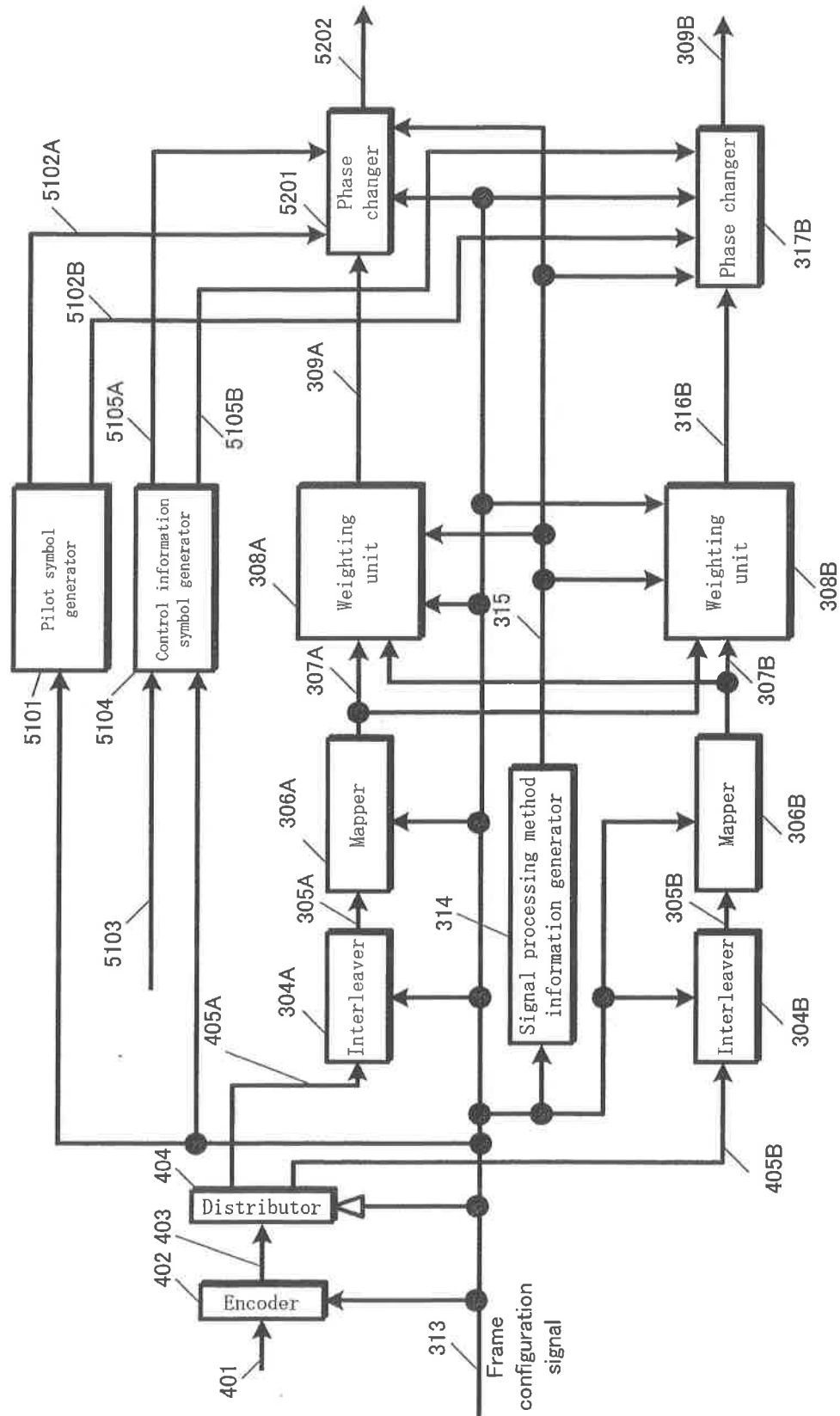


FIG. 57

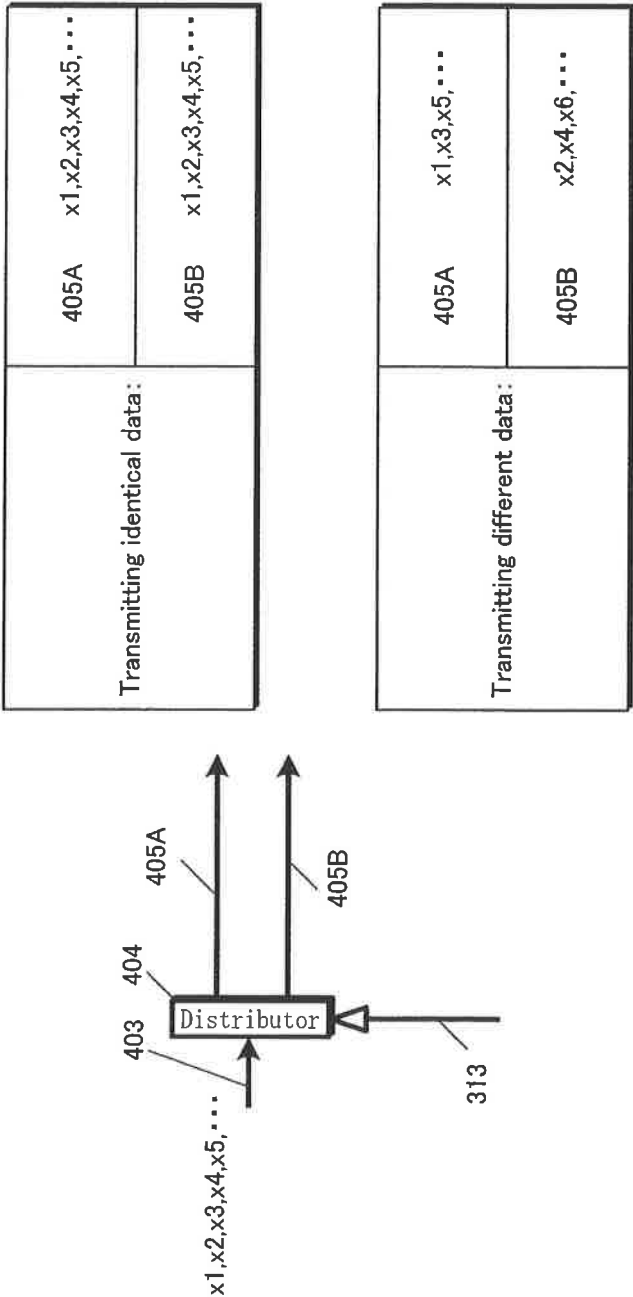
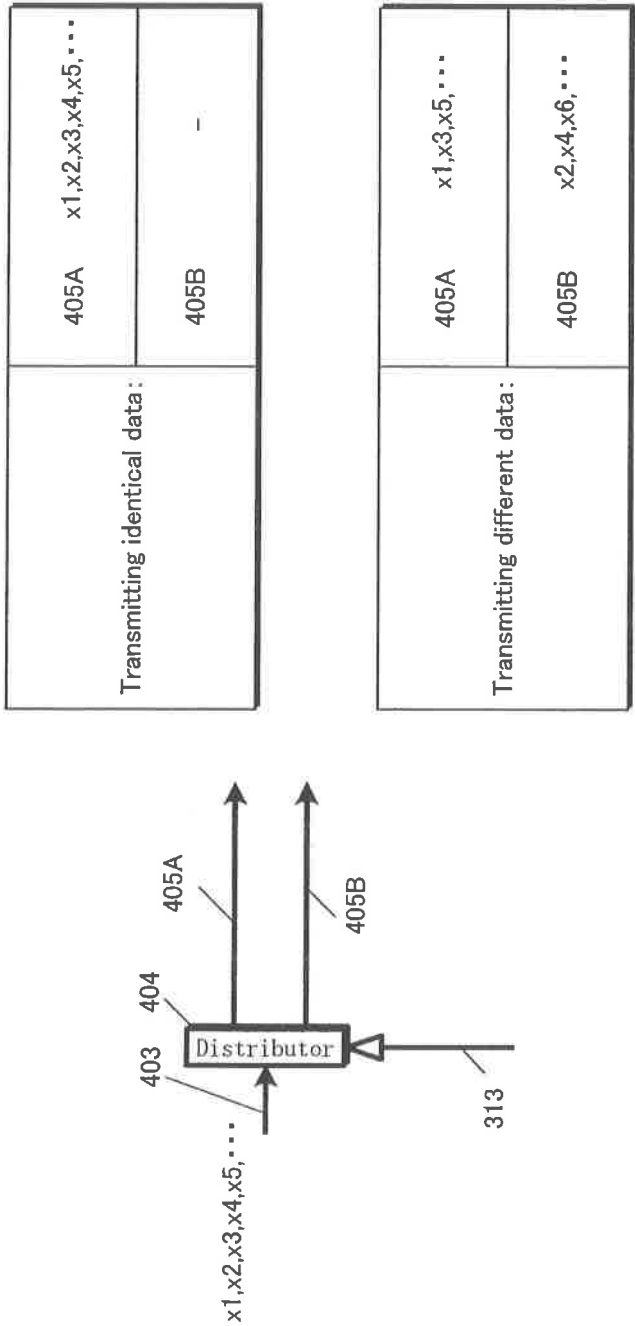


FIG. 58



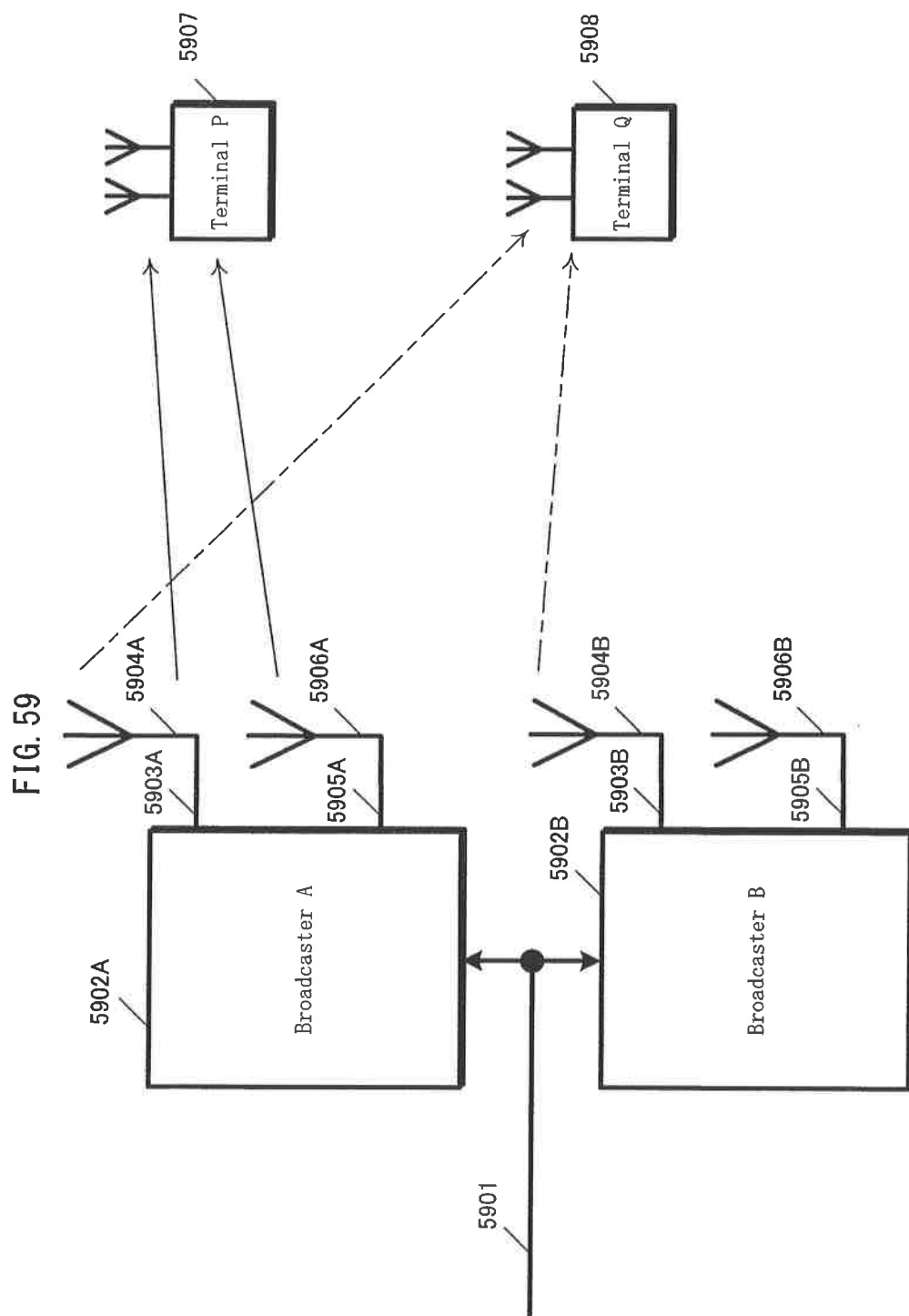


FIG. 60

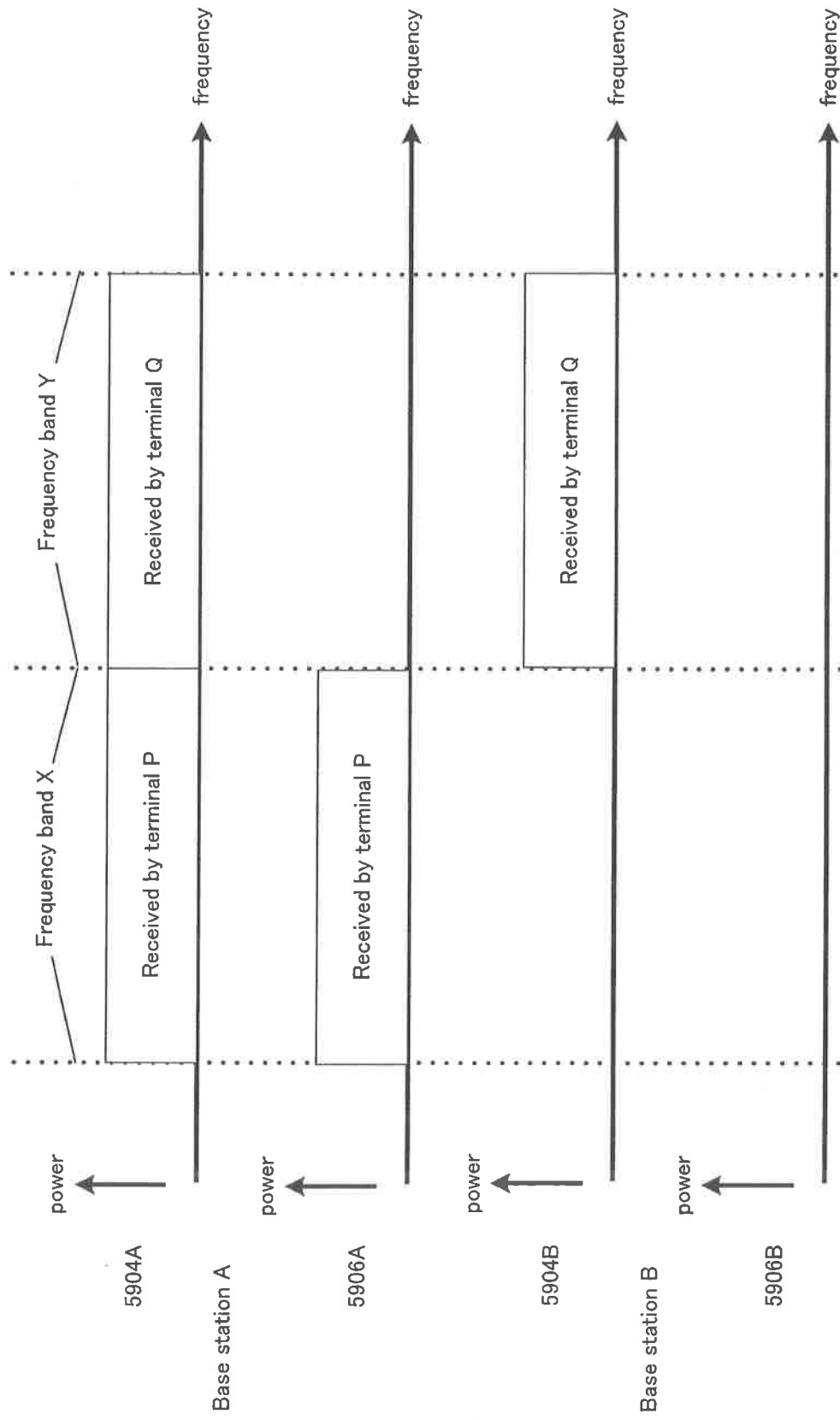
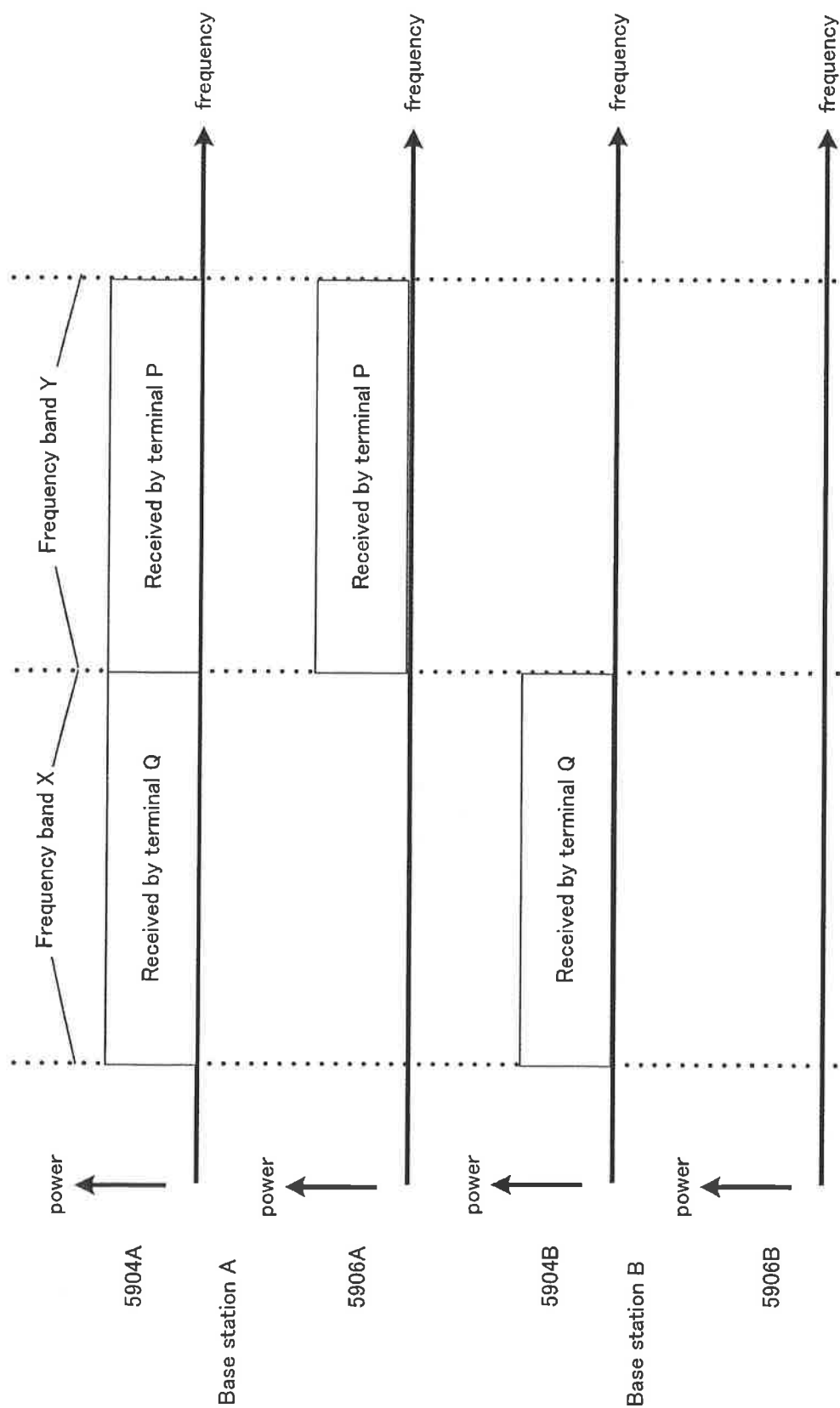


FIG. 61



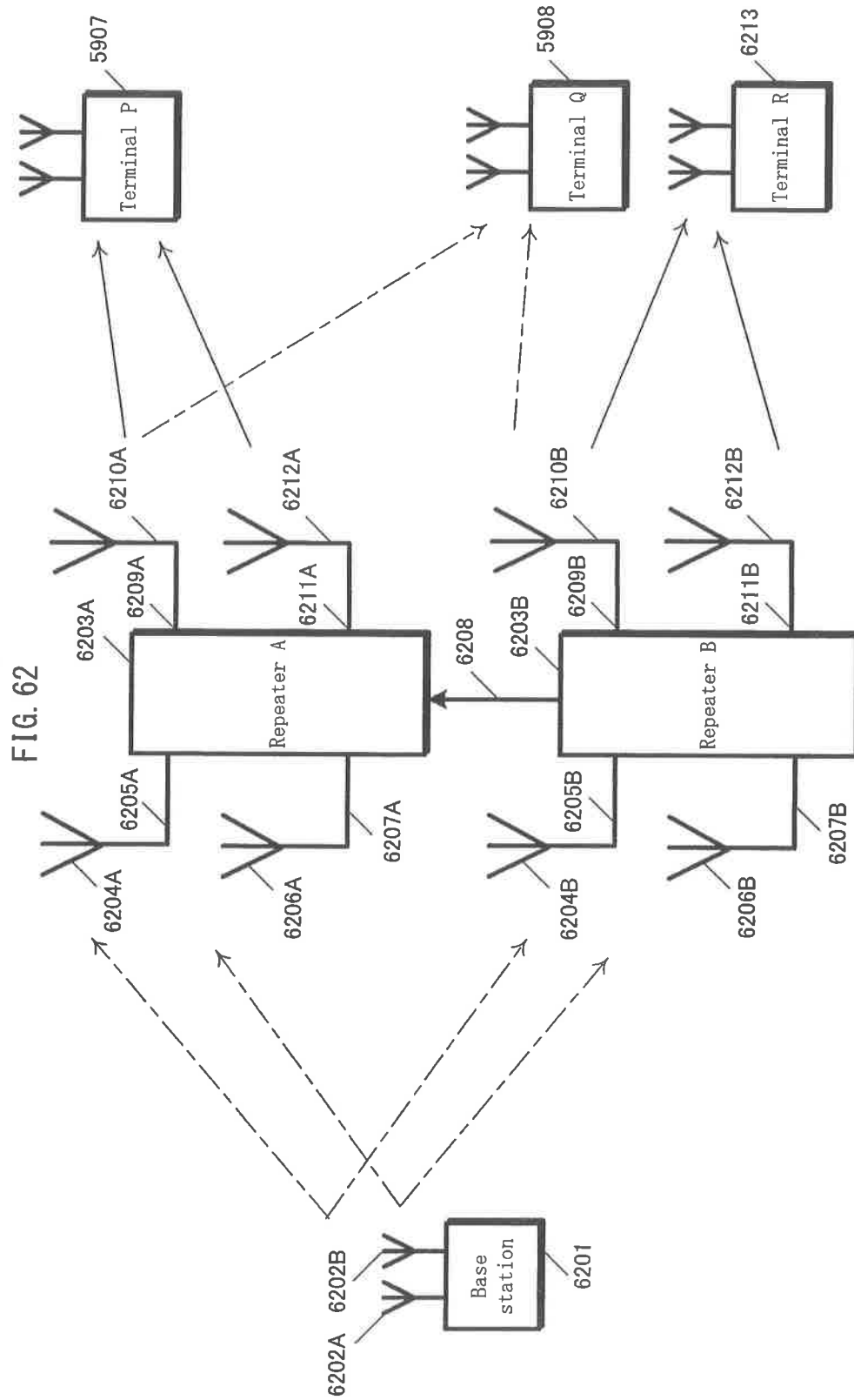


FIG. 63

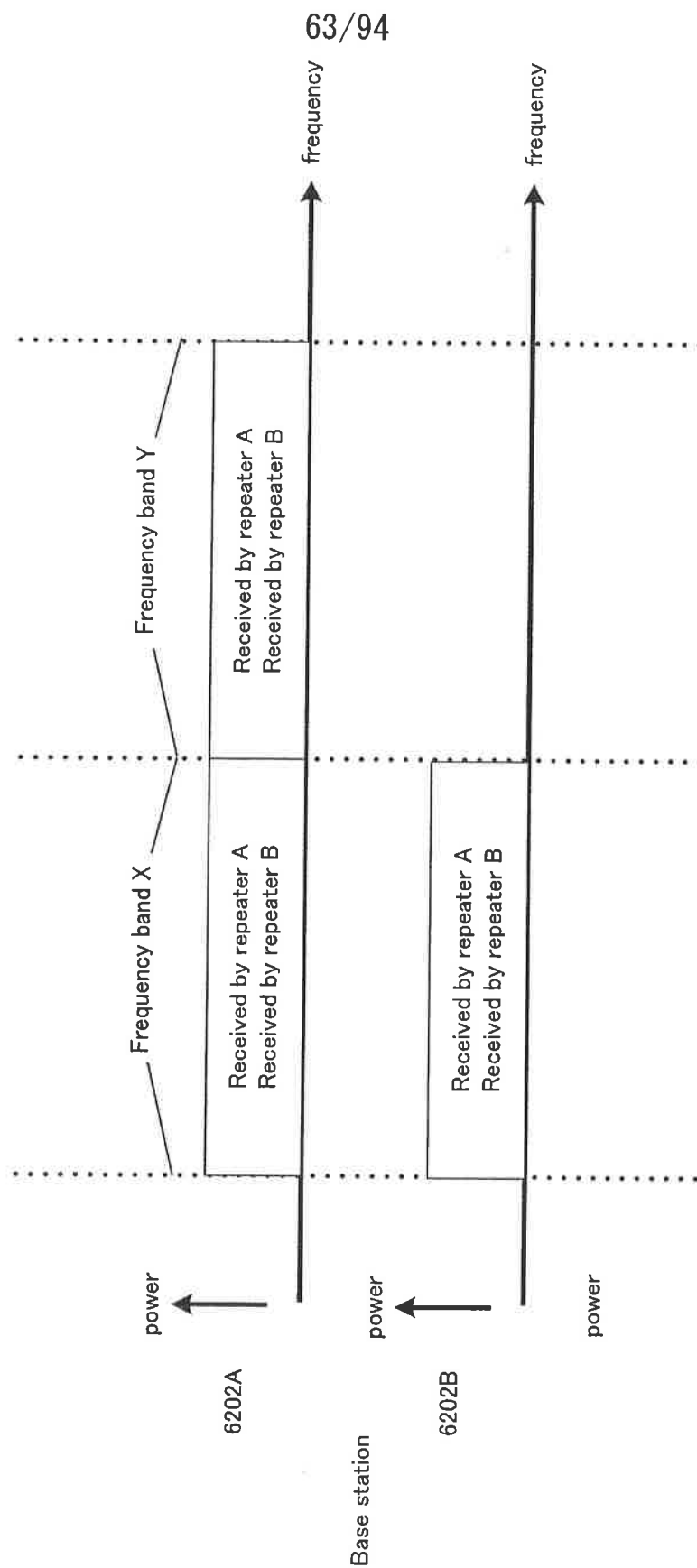


FIG. 64

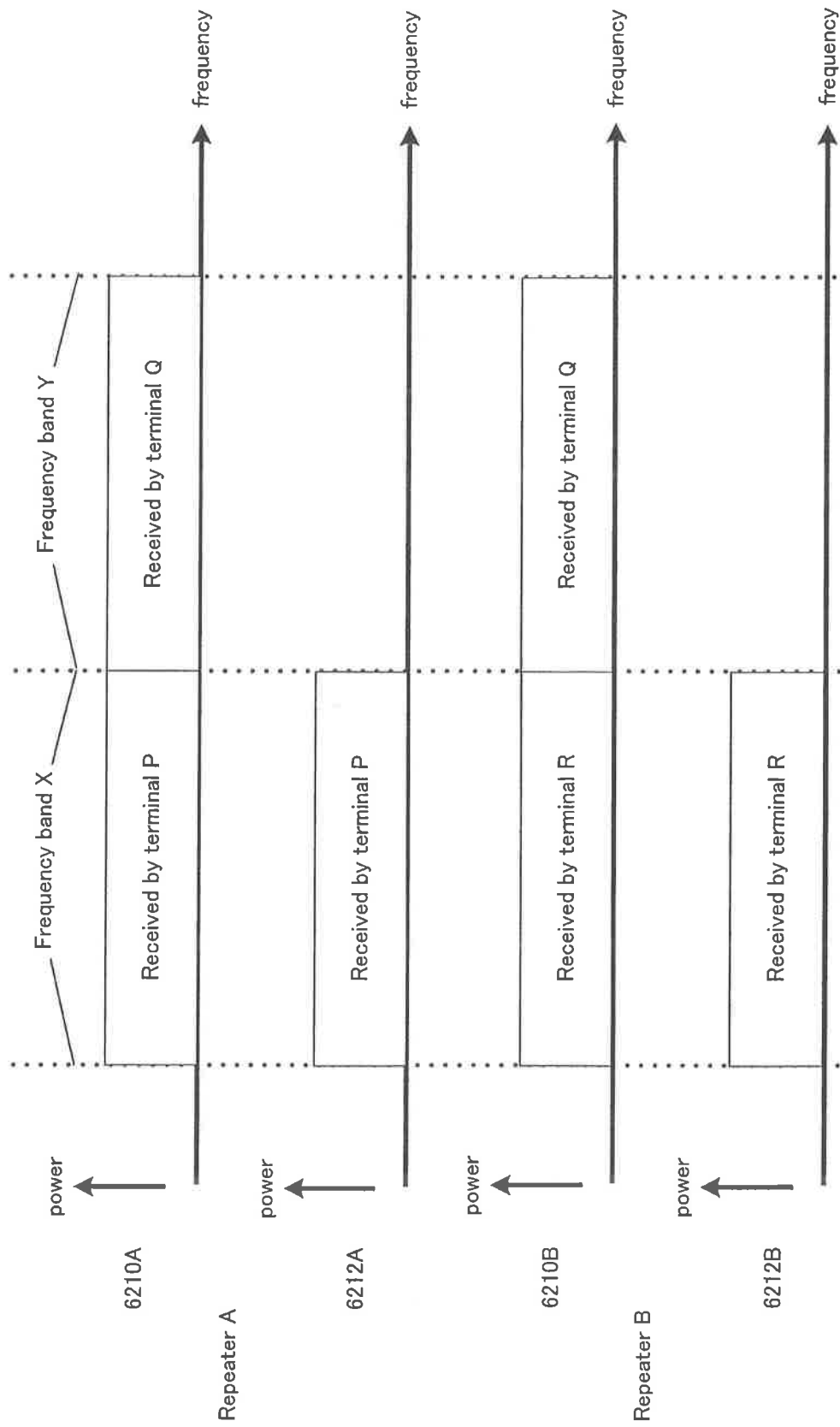


FIG. 65

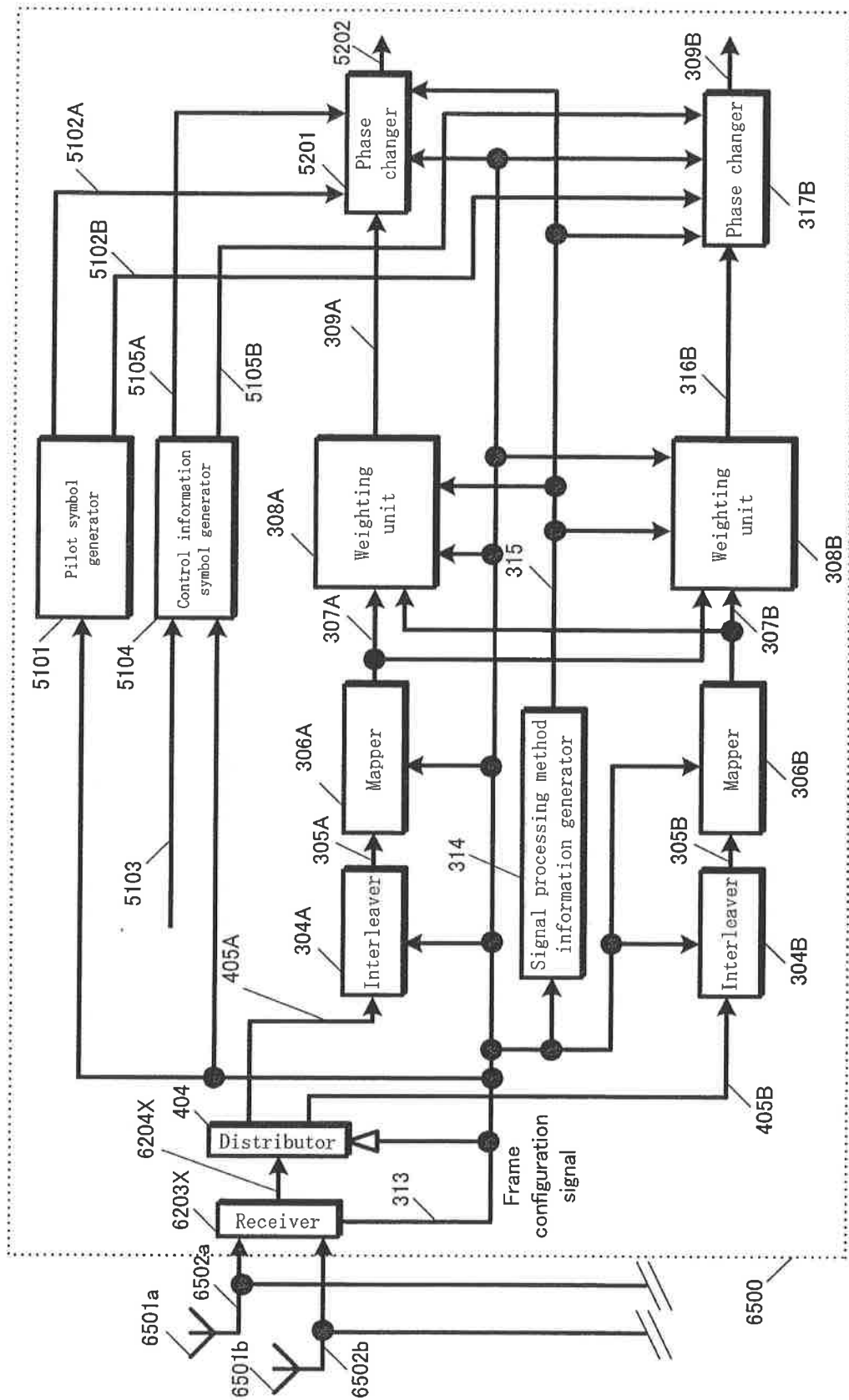


FIG. 66

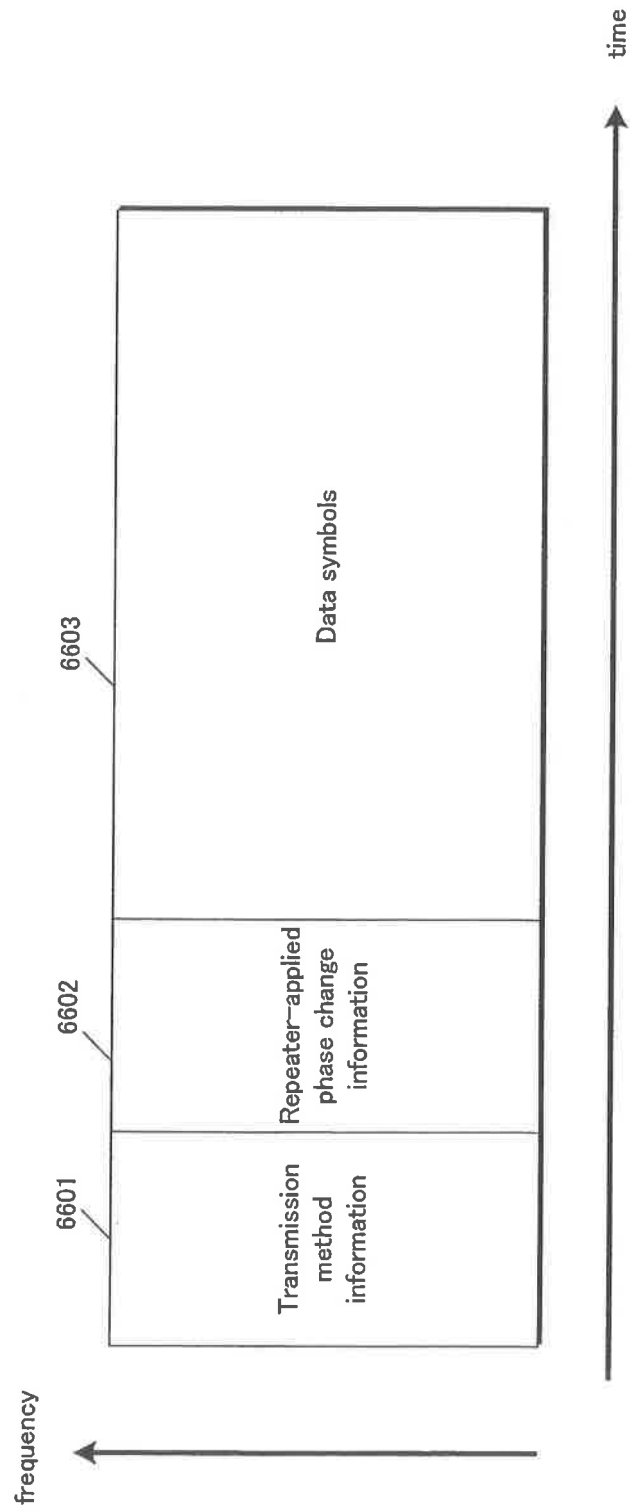
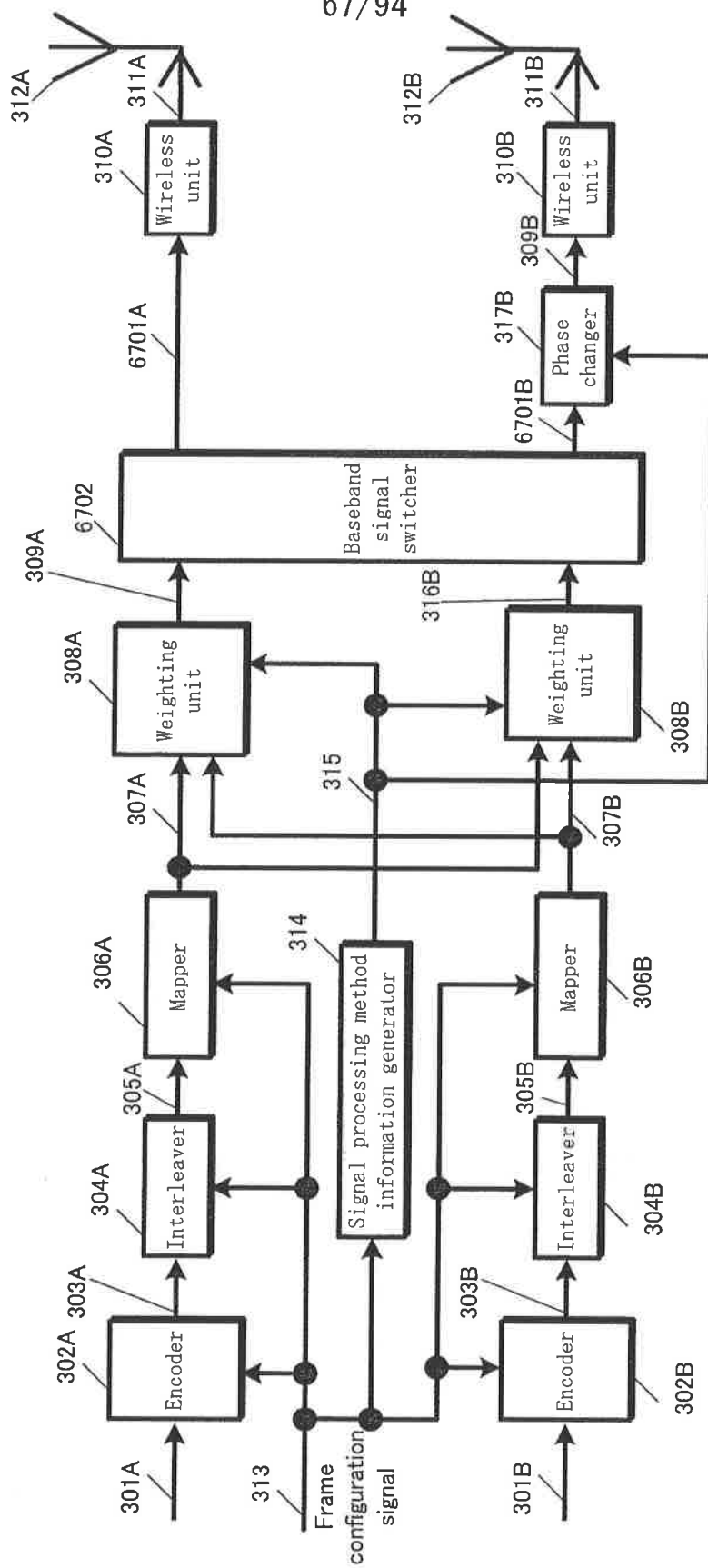


FIG. 67



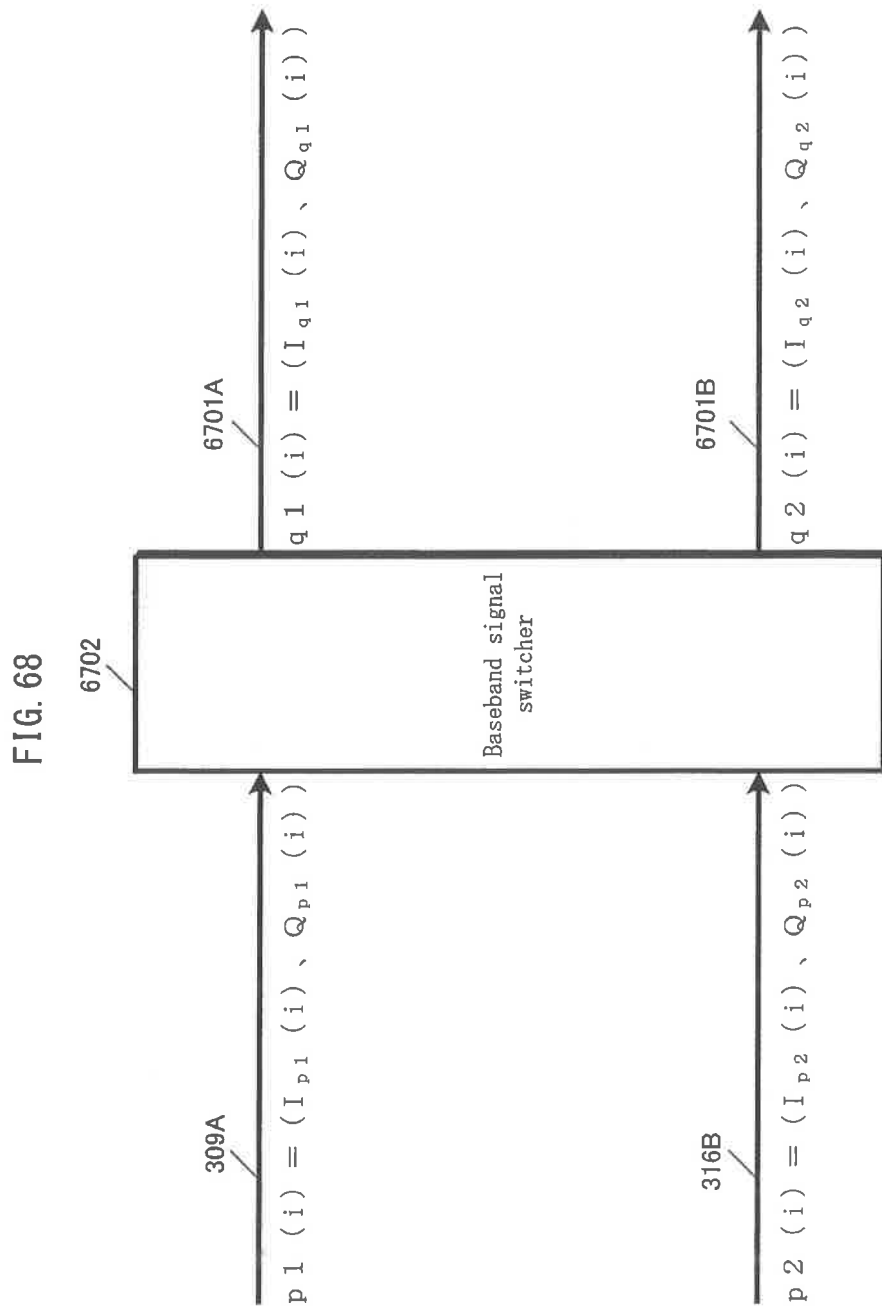
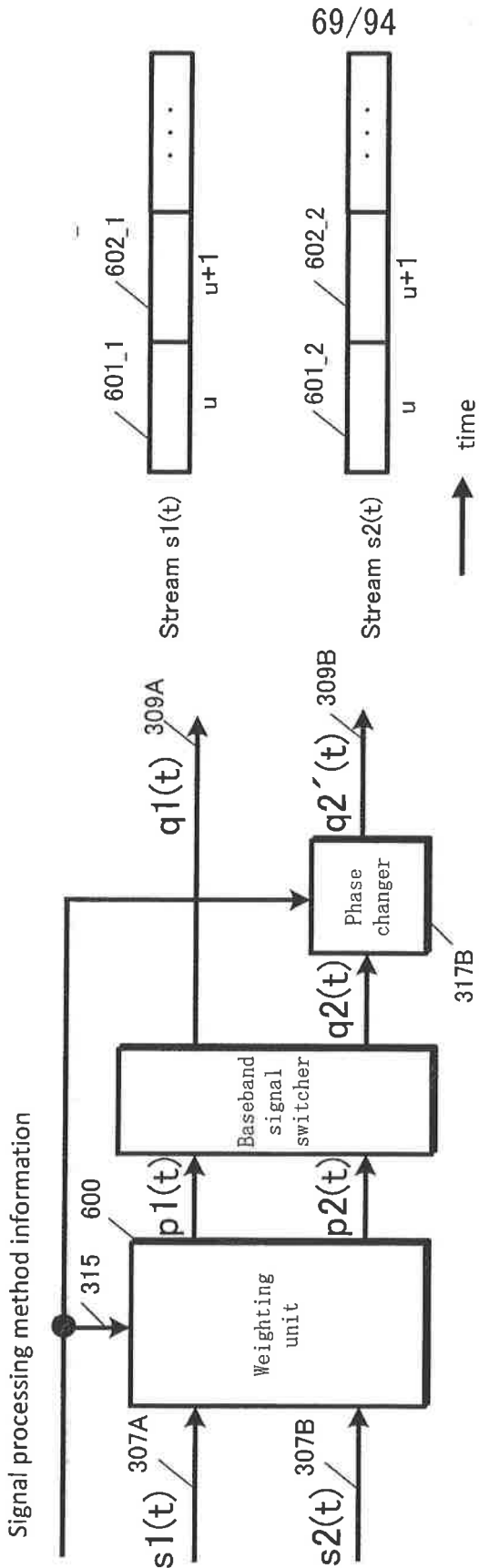


FIG. 69



Sample variations of phase changing formula $y(t)$ used by phase changer

timestamp u	timestamp $u+1$	timestamp $u+2$	timestamp $u+3$	timestamp $u+k$
$y(u) = e^{j0}$	$y(u+1) = e^{j\frac{\pi}{2}}$	$y(u+2) = e^{j\pi}$	$y(u+3) = e^{j\frac{3\pi}{2}}$	$y(u+k) = e^{j\frac{k\pi}{2}}$

FIG. 70

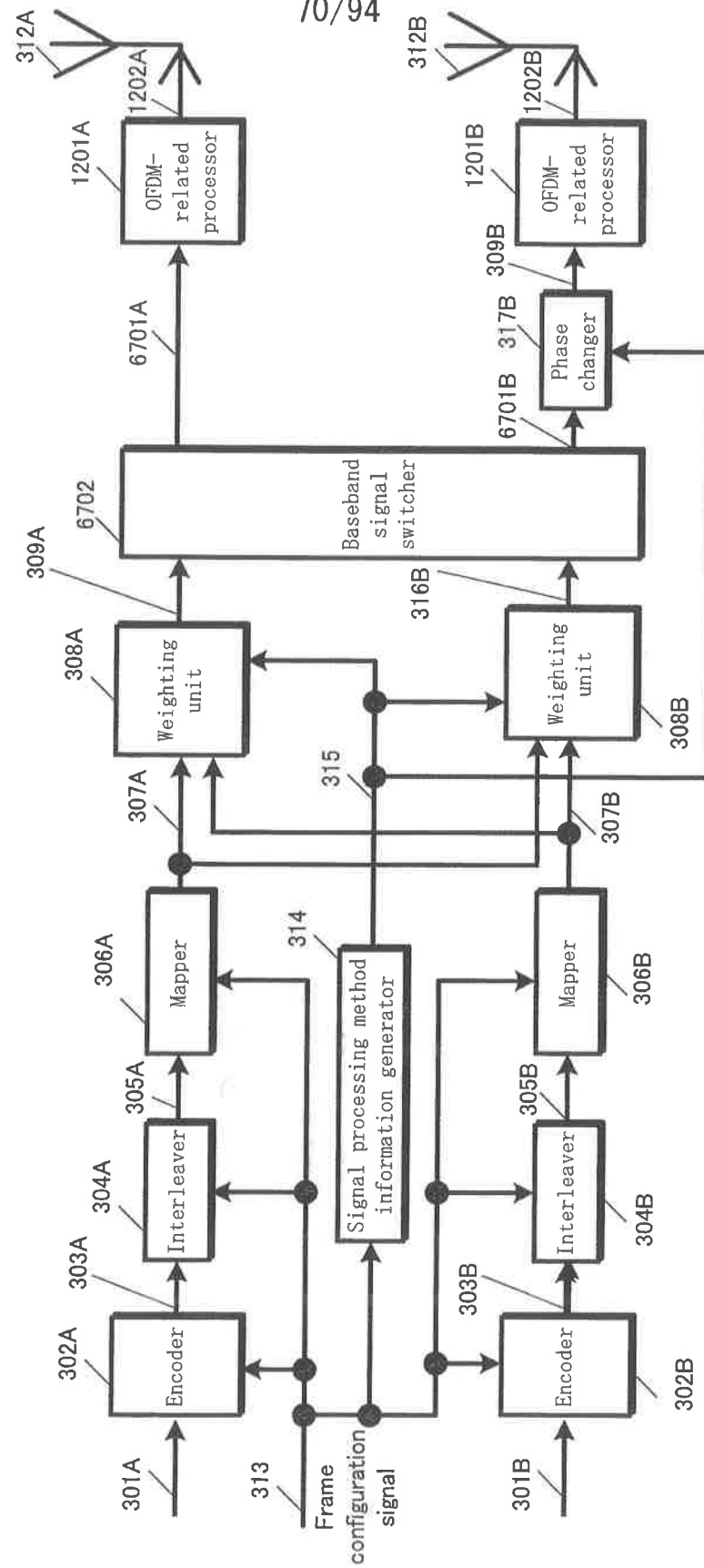


FIG. 71

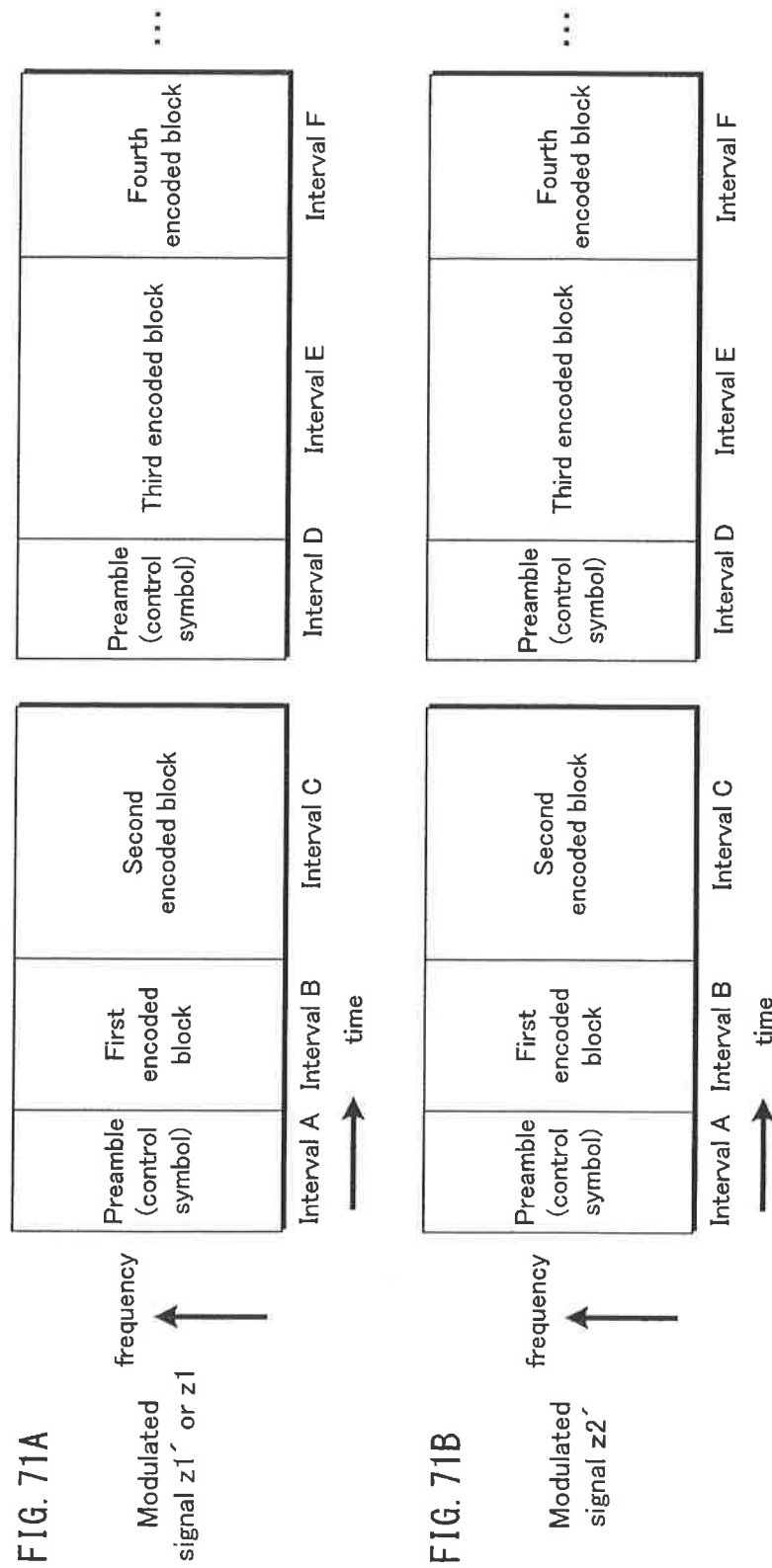


FIG. 72

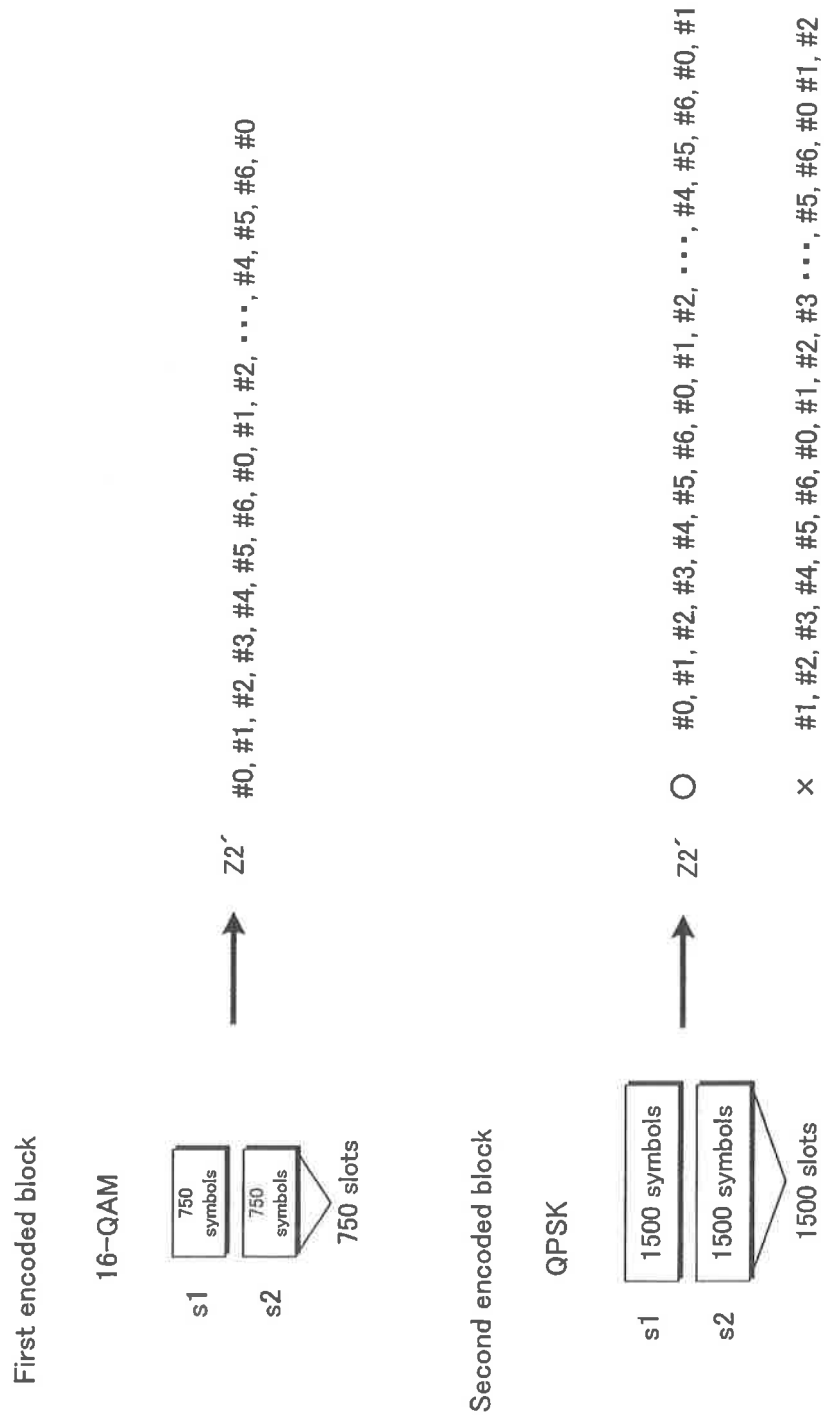


FIG. 73

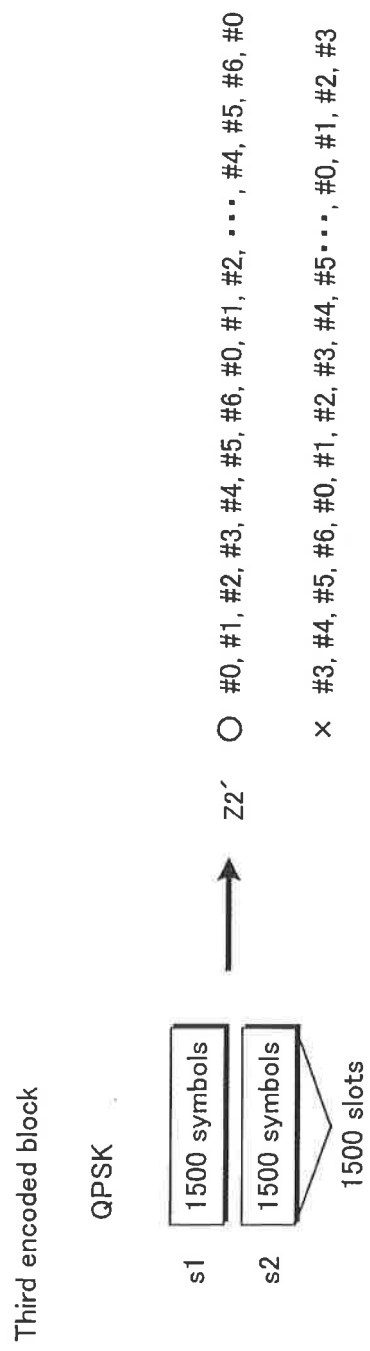


FIG. 74

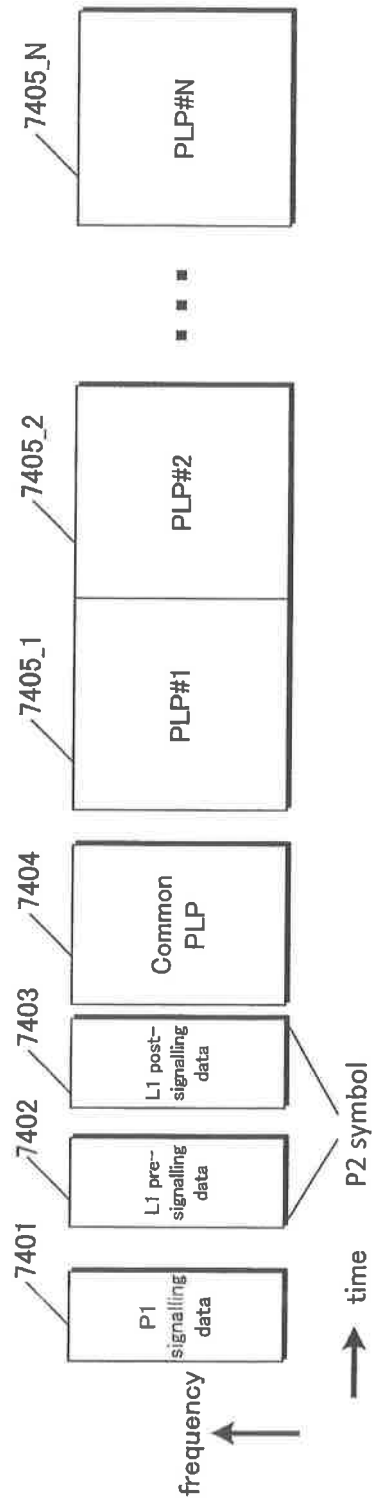


FIG. 75

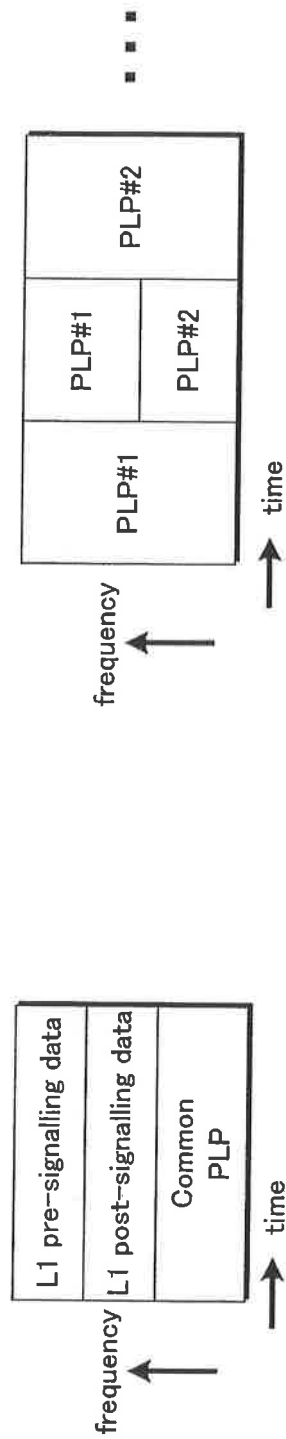


FIG. 76

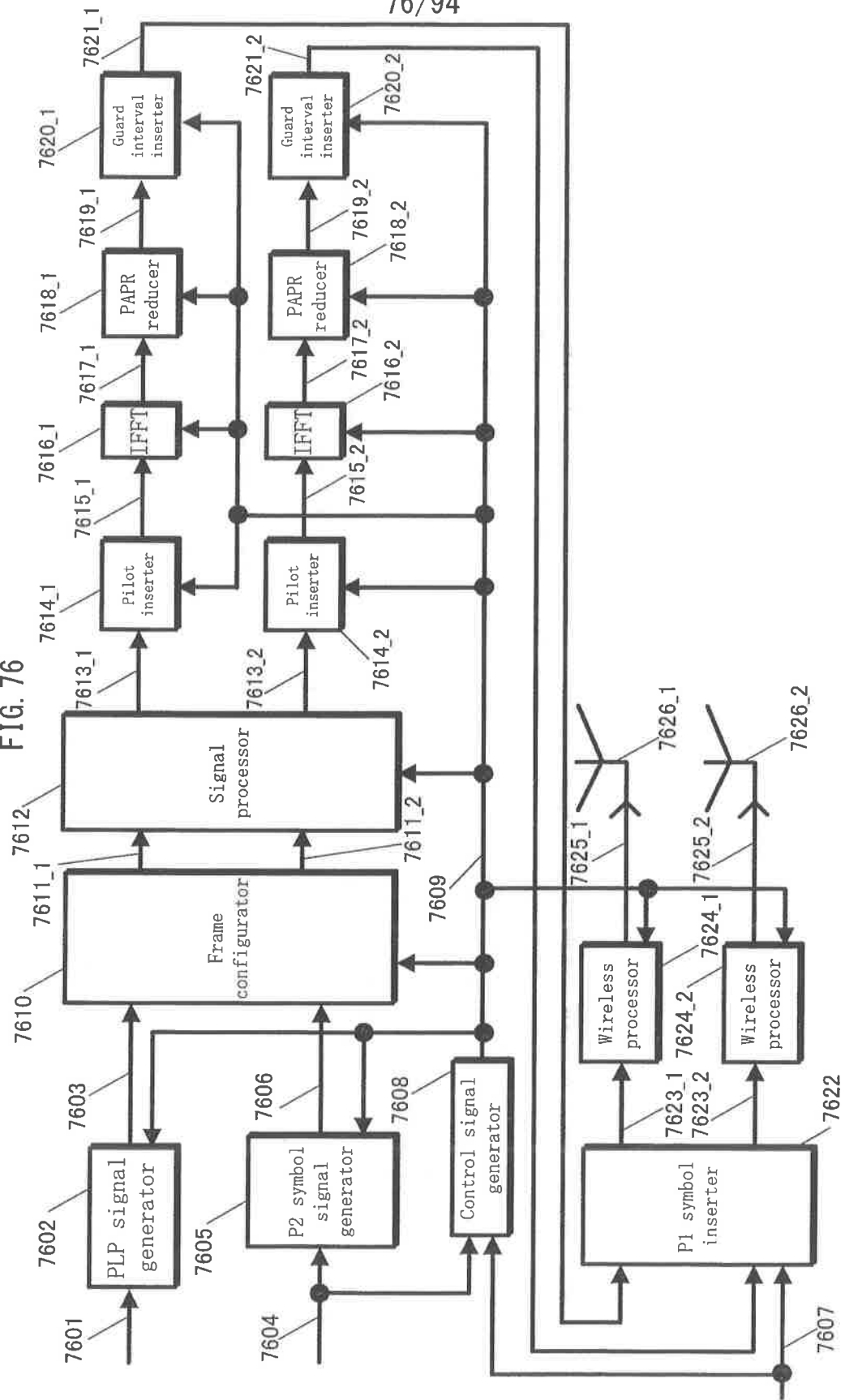


FIG. 77

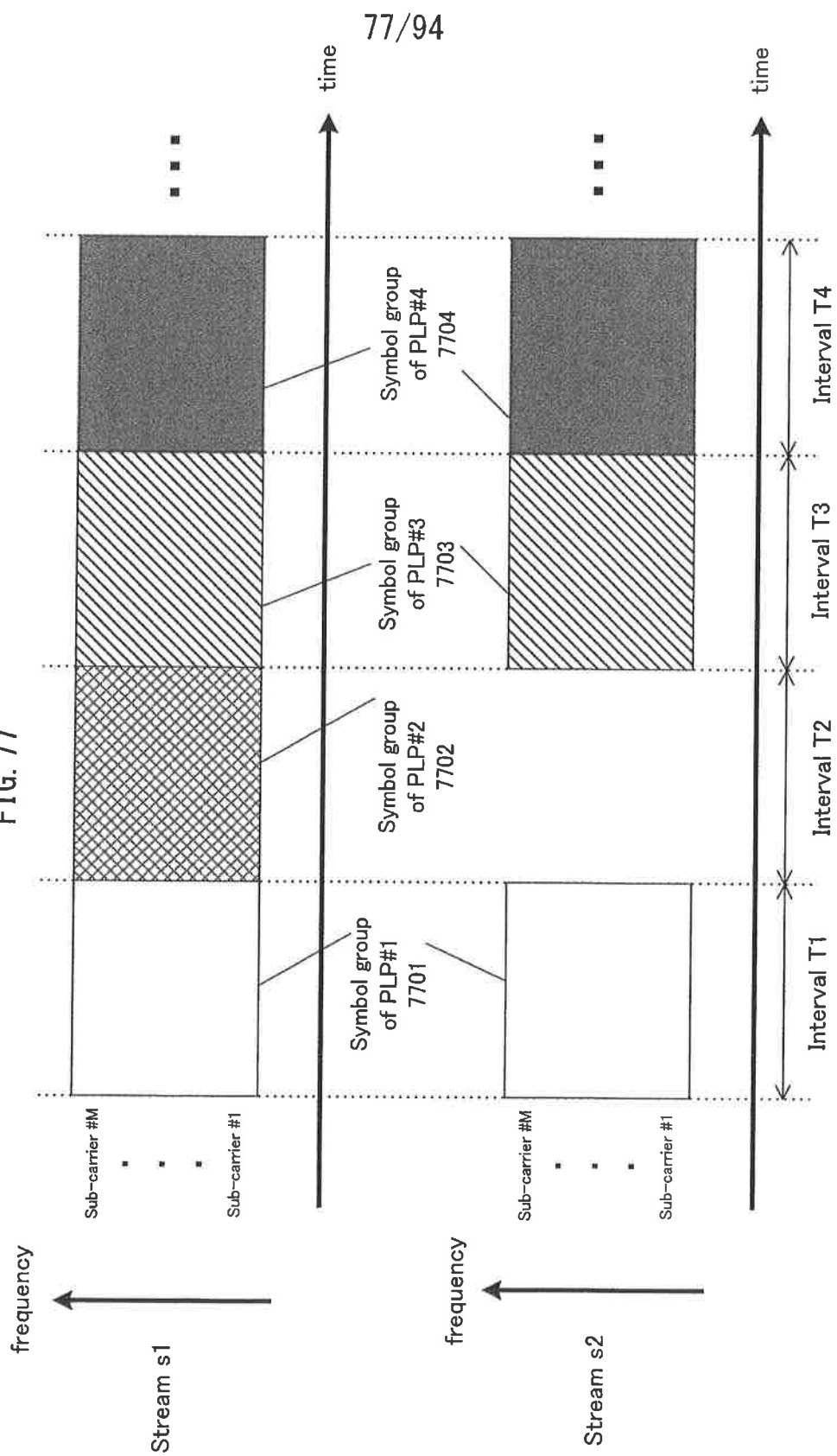


FIG. 78

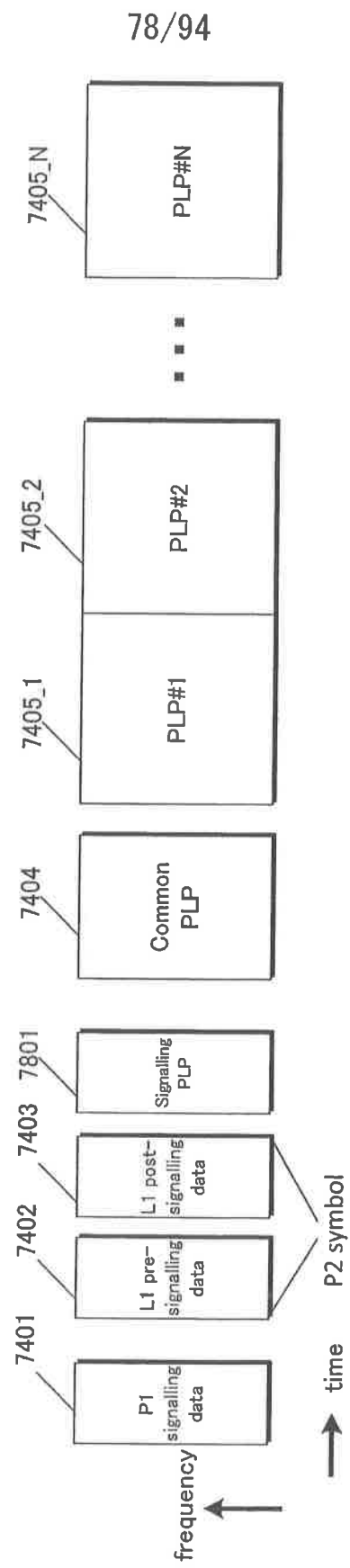


FIG. 79

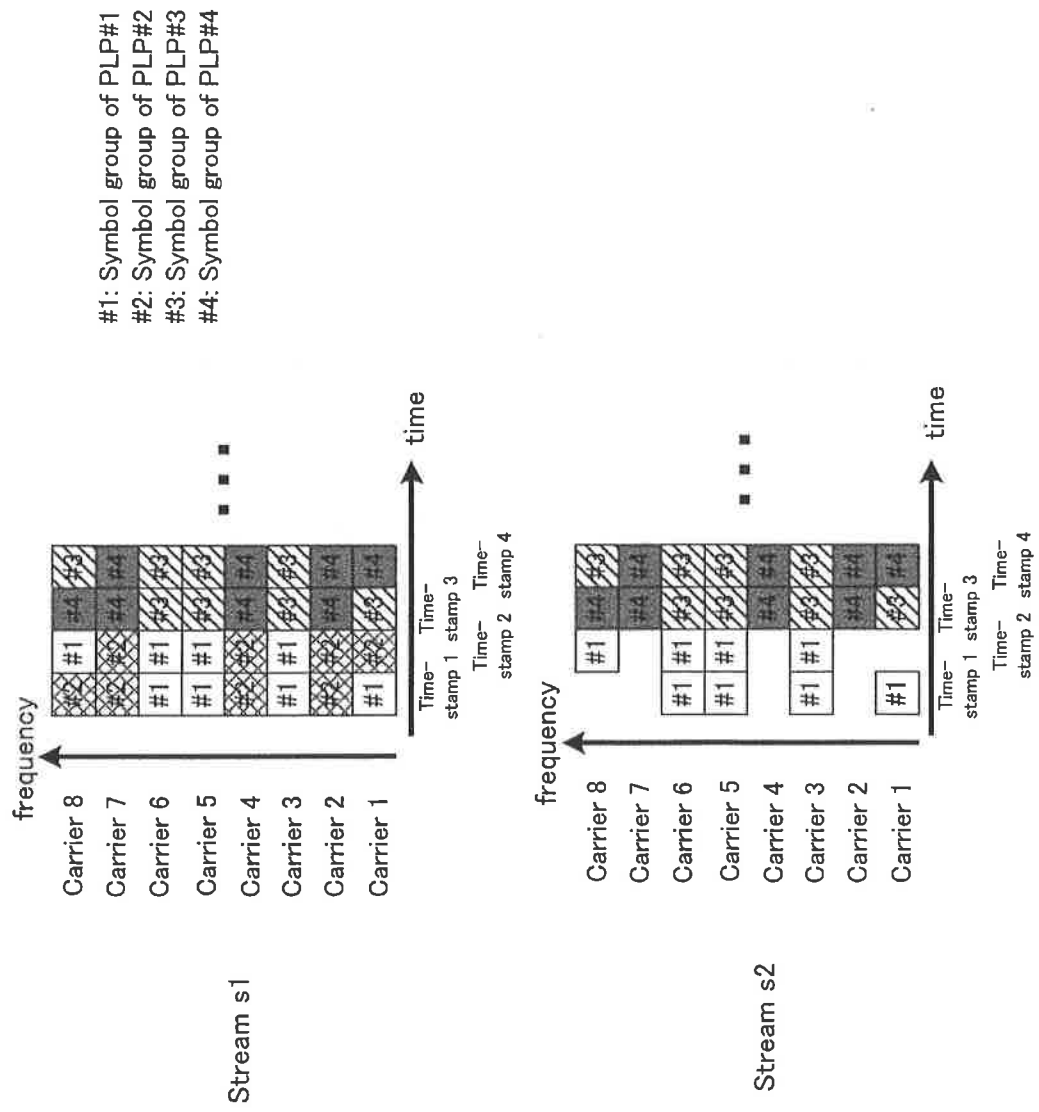


FIG. 80

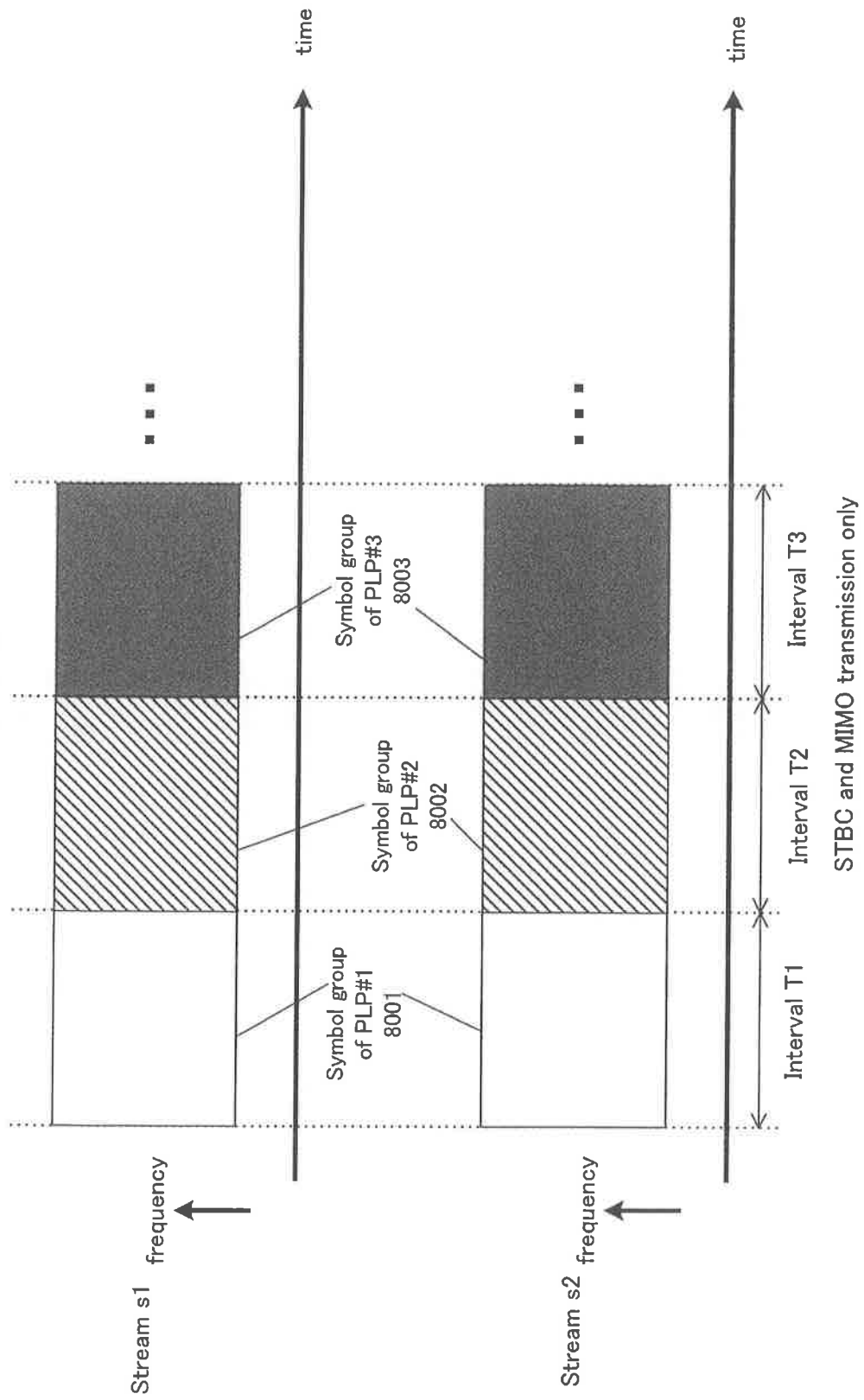
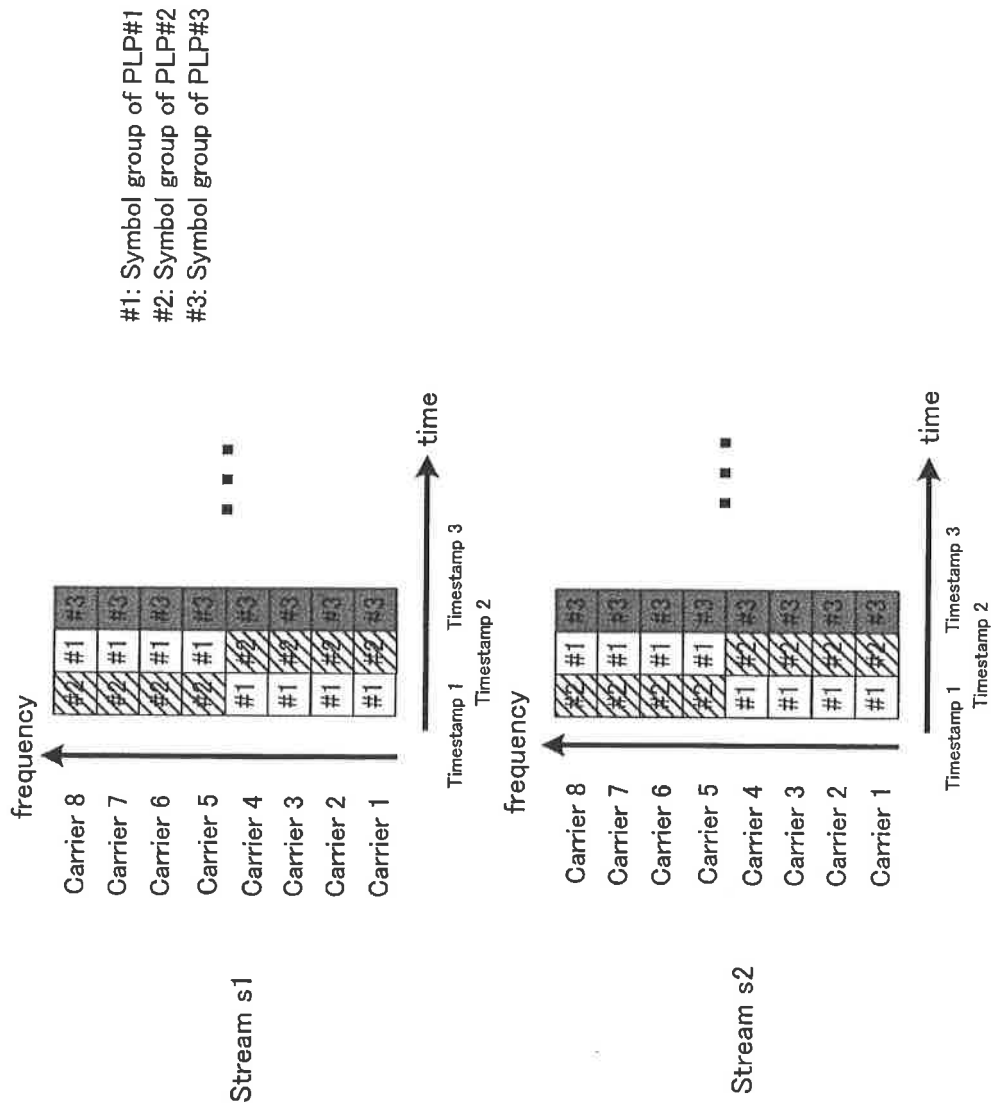


FIG. 81



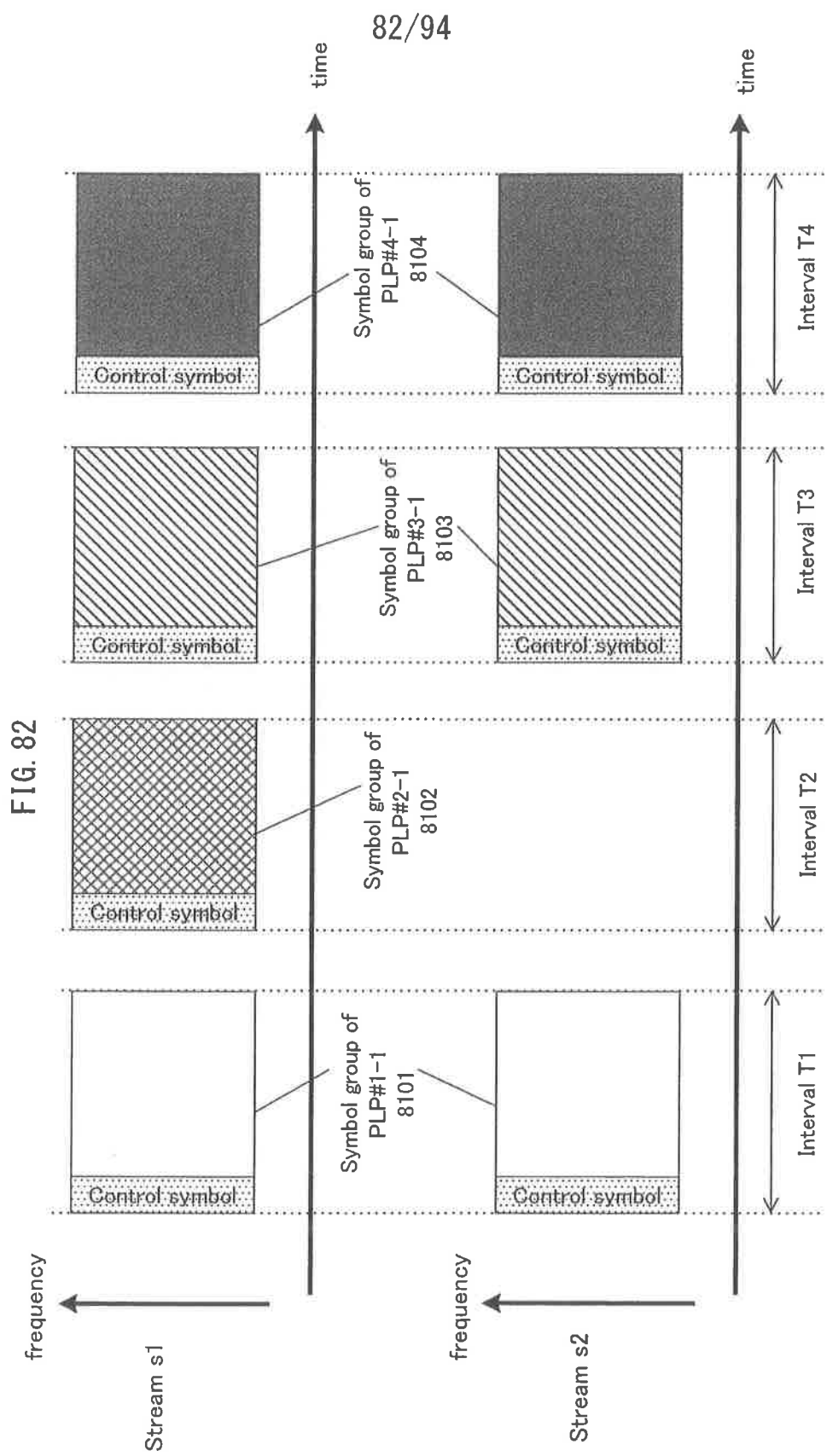


FIG. 83

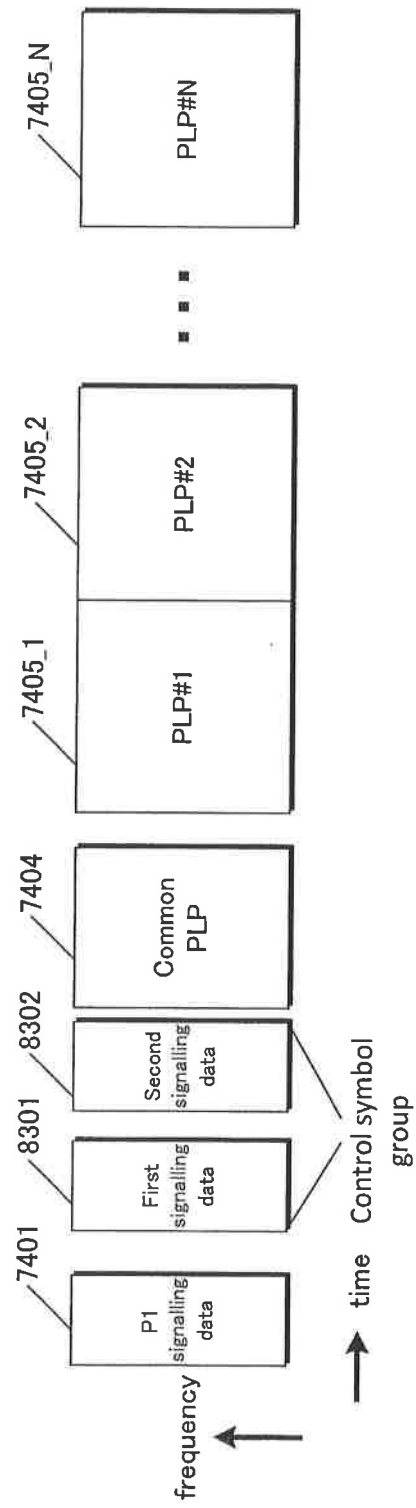


FIG. 84

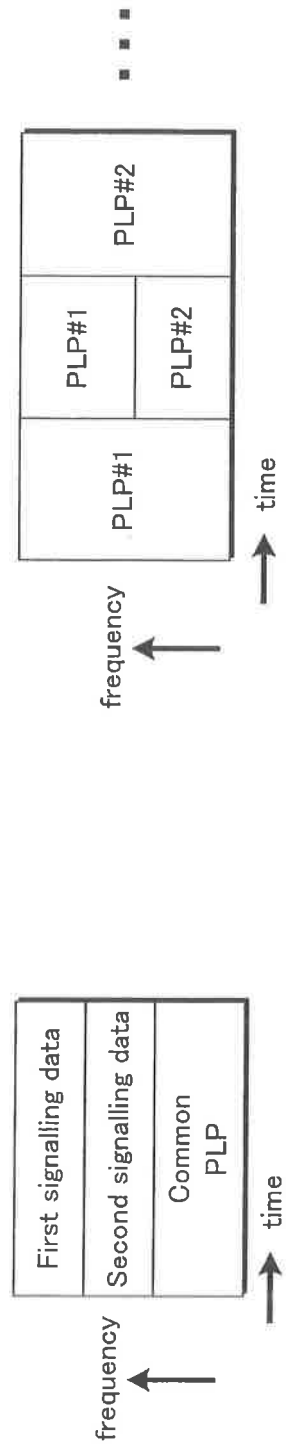
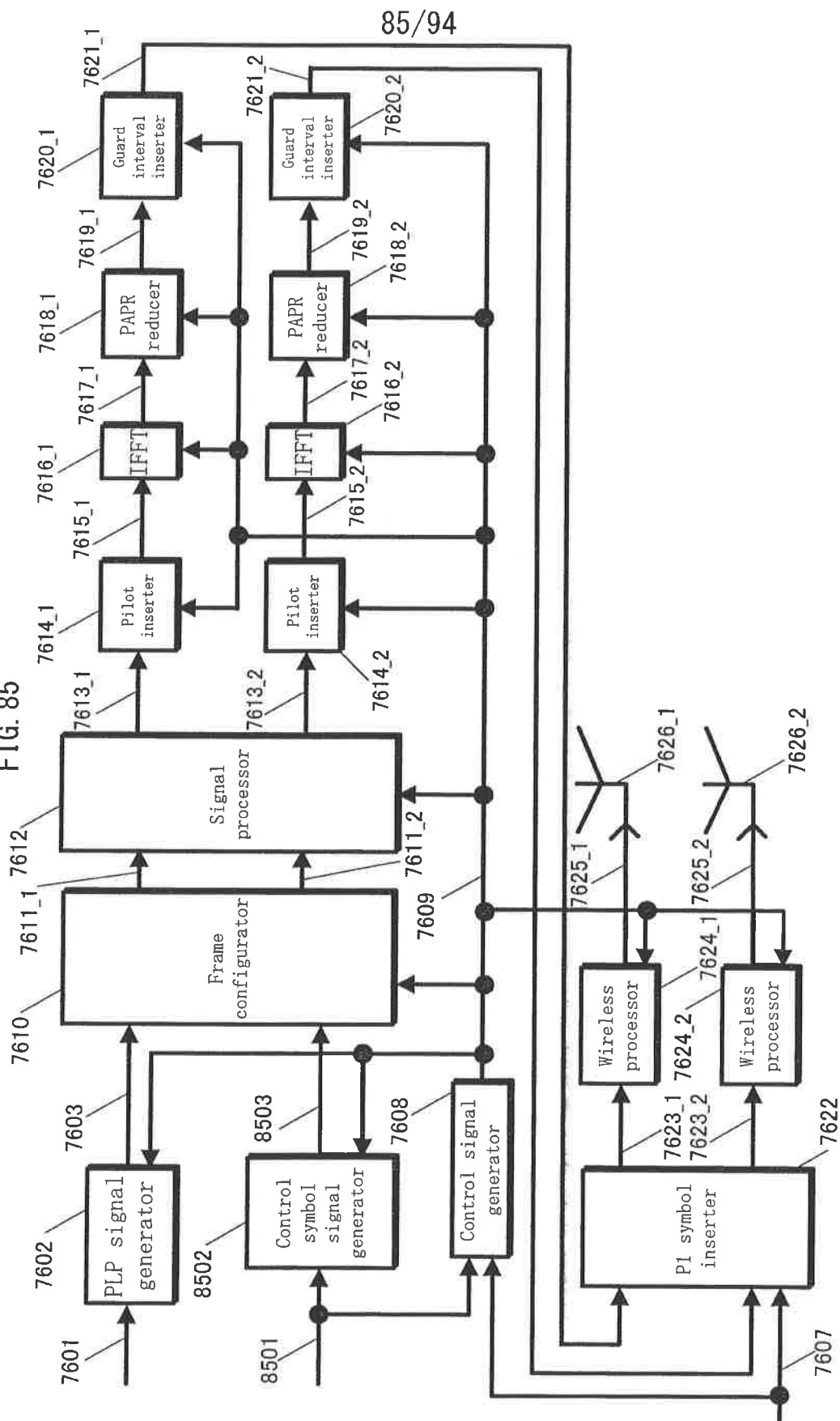


FIG. 85



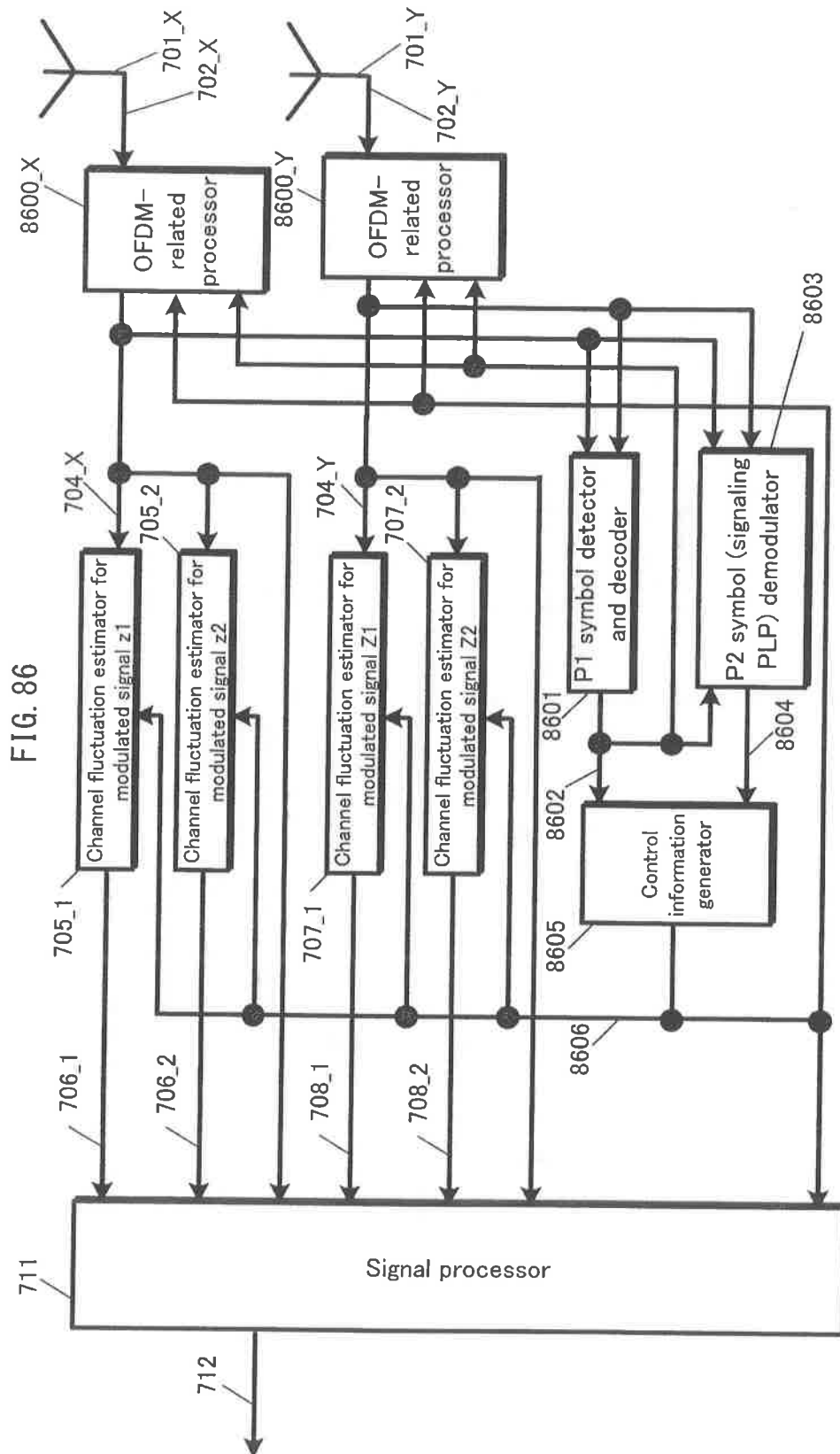


FIG. 87

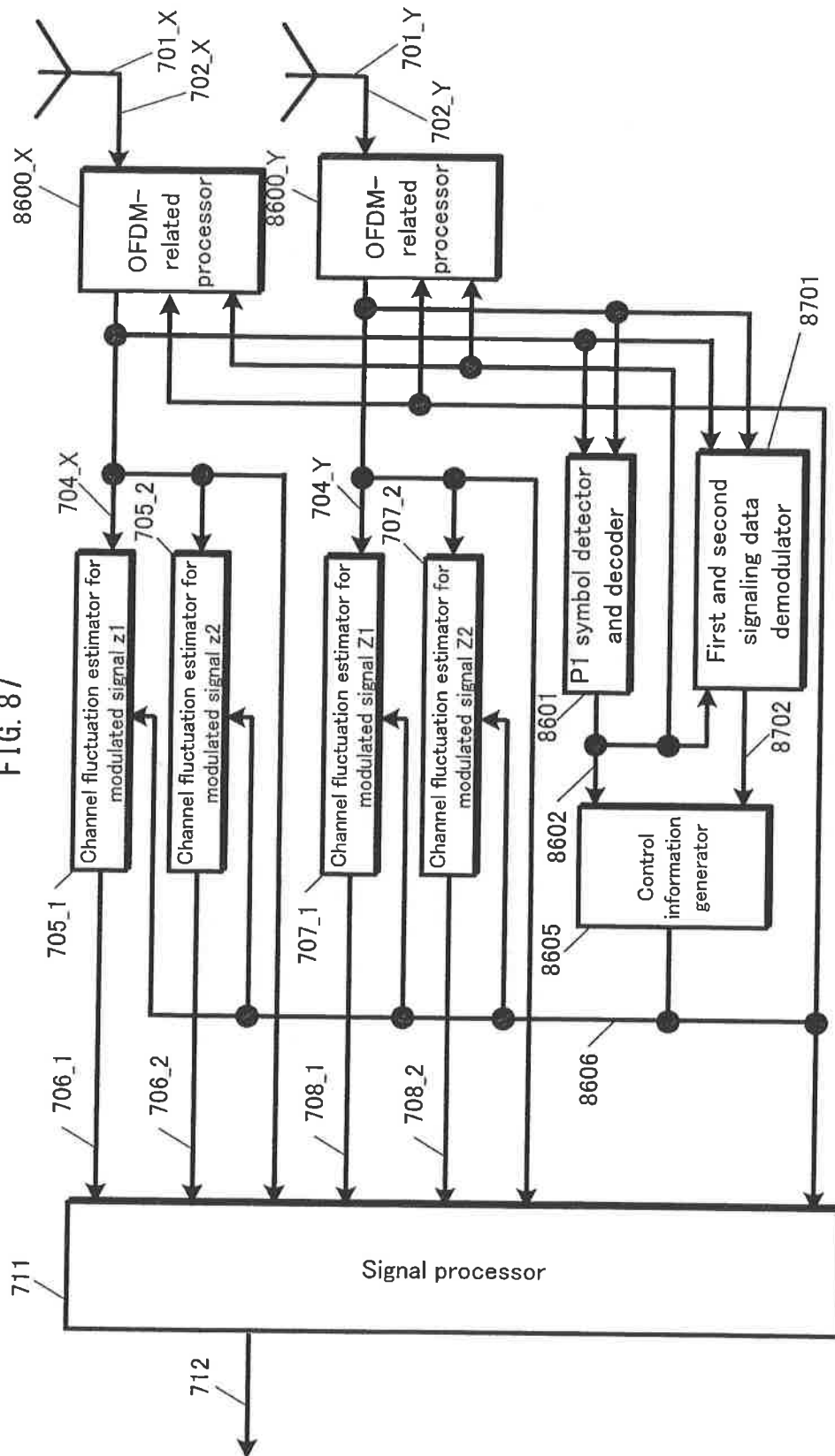


FIG. 88

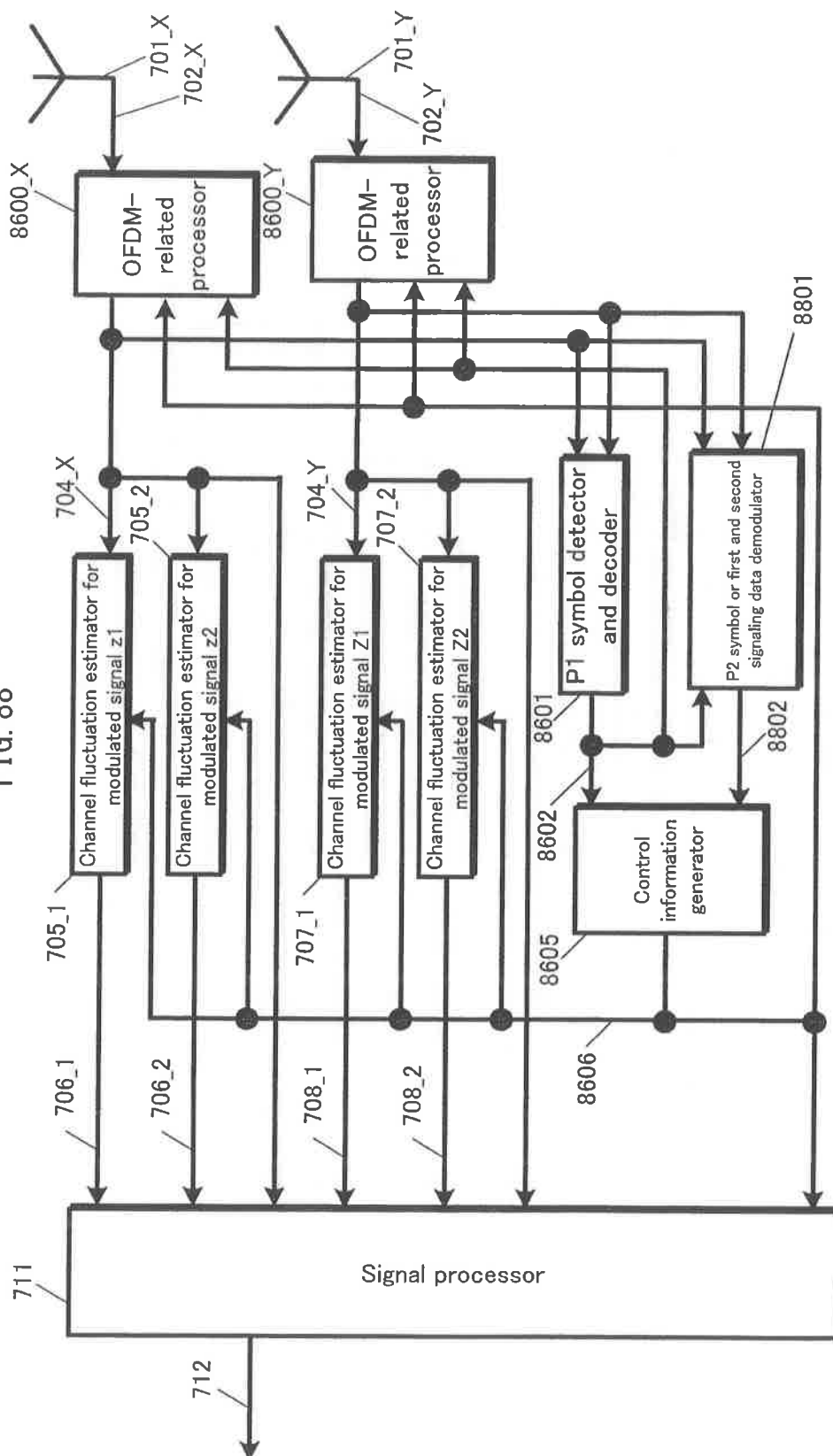


FIG. 89A

time
 t_7
 t_5
 t_2
 t_1

Modulated
 signal z_1

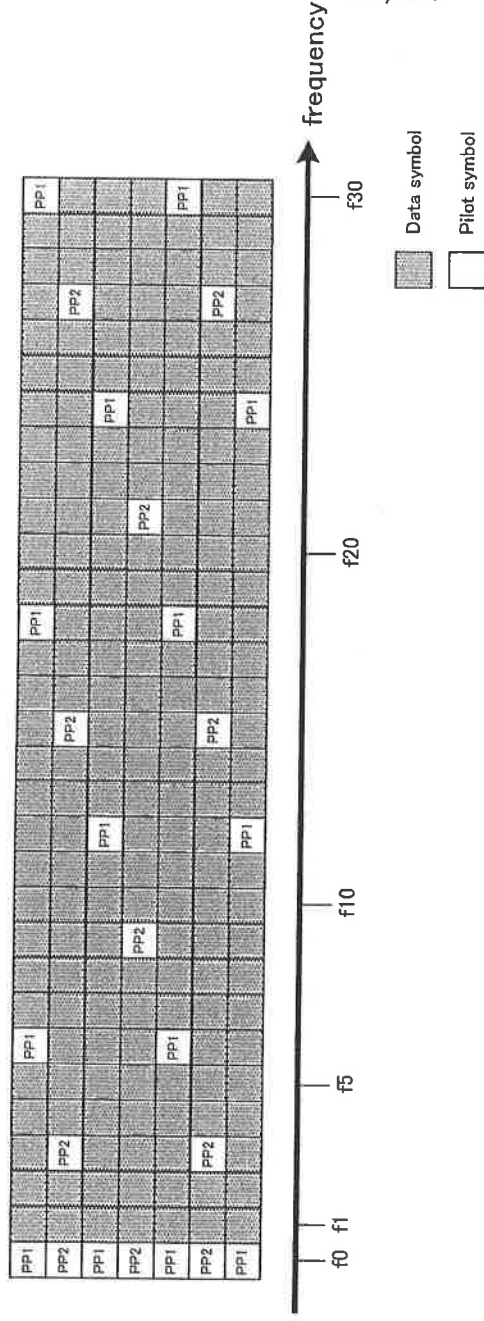


FIG. 89B

time
 t_7
 t_5
 t_2
 t_1

Modulated
 signal z_2

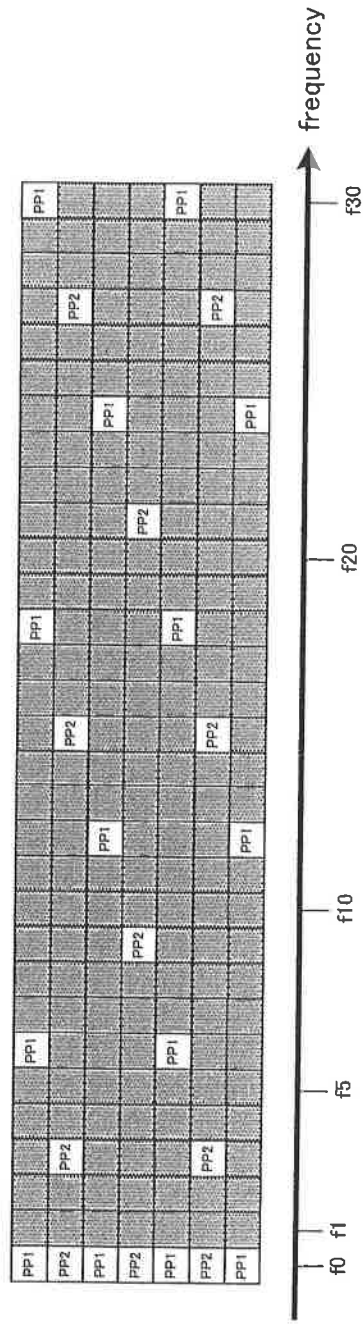


FIG. 90A

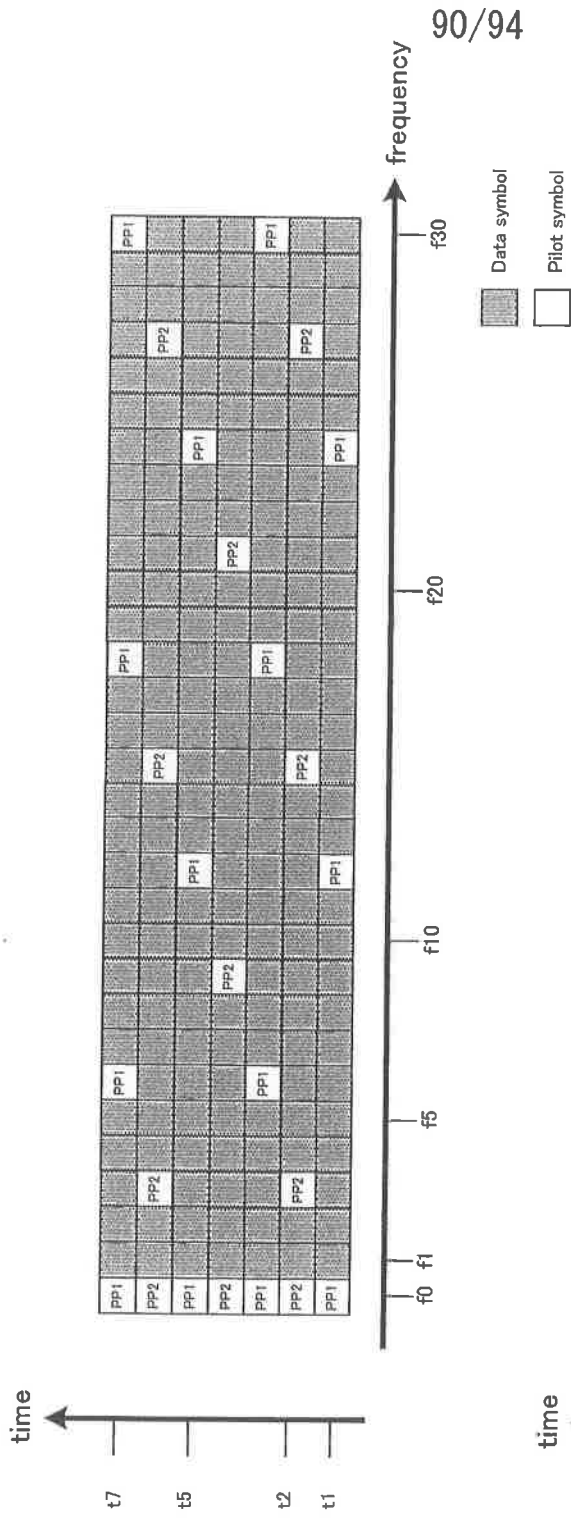


FIG. 90B

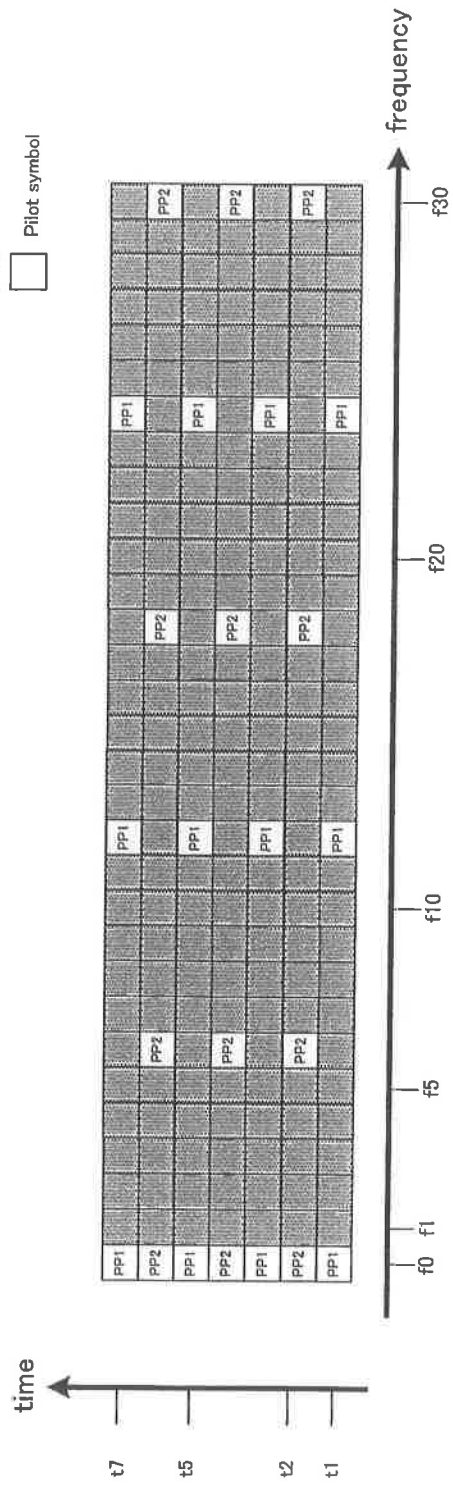


FIG. 91A

time

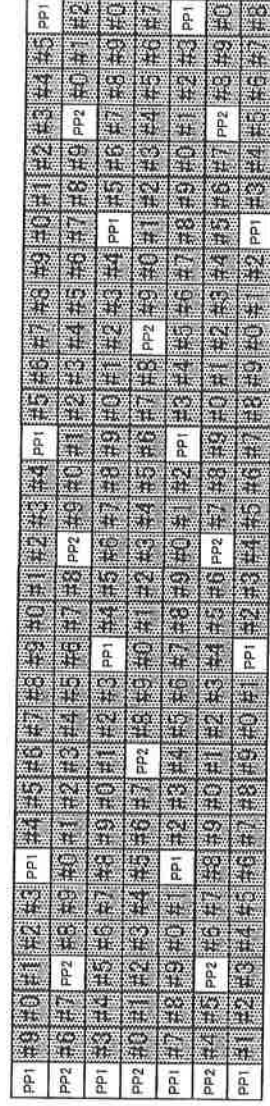
t7

t5

t2

t1

Modulated
signal z1



frequency

f0

f1

f5

f10

f20

f30

Data symbol

Pilot symbol

91/94

FIG. 91B

time

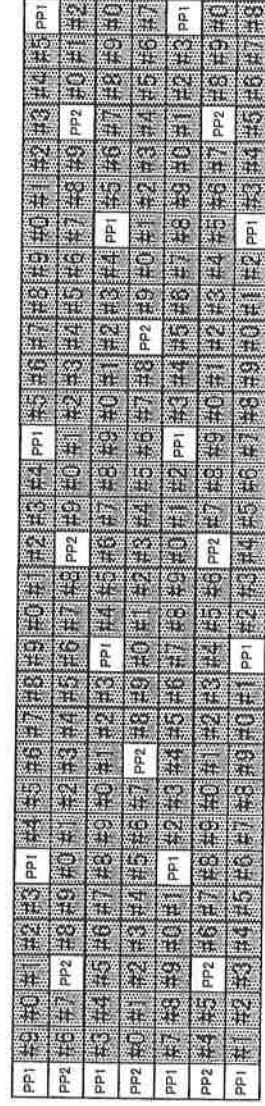
t7

t5

t2

t1

Modulated
signal z2



frequency

f0

f1

f5

f10

f20

f30

FIG. 92A

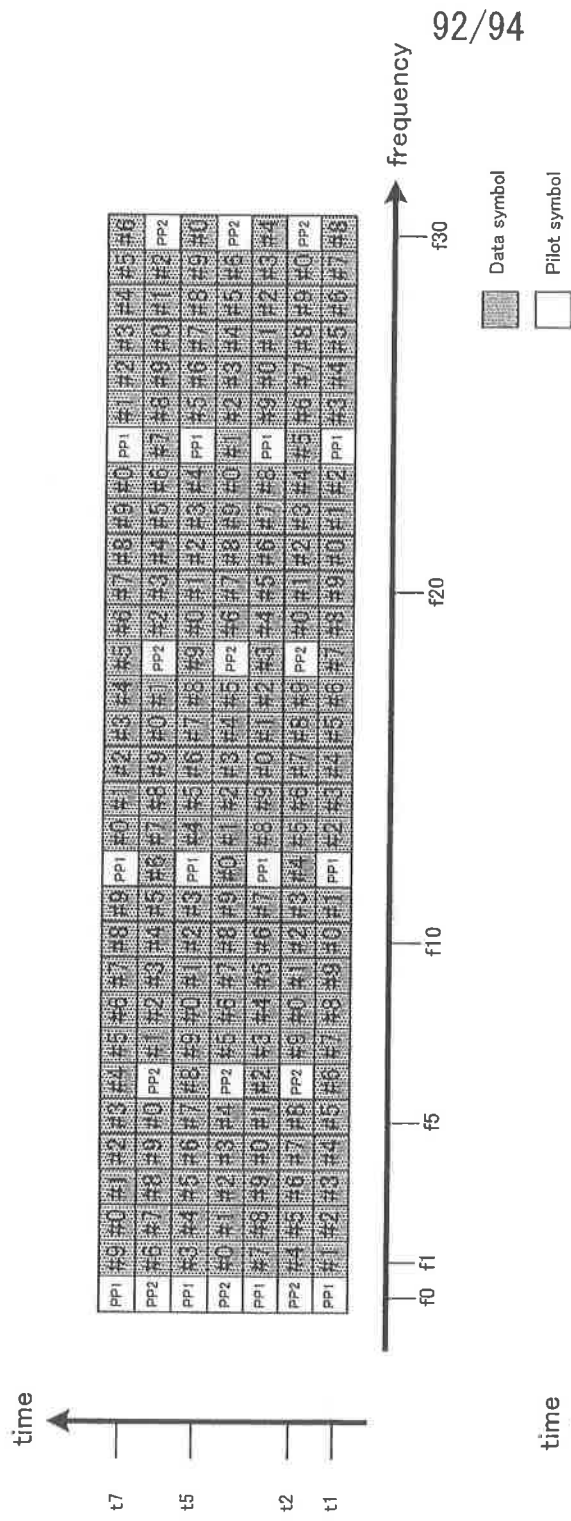


FIG. 92B

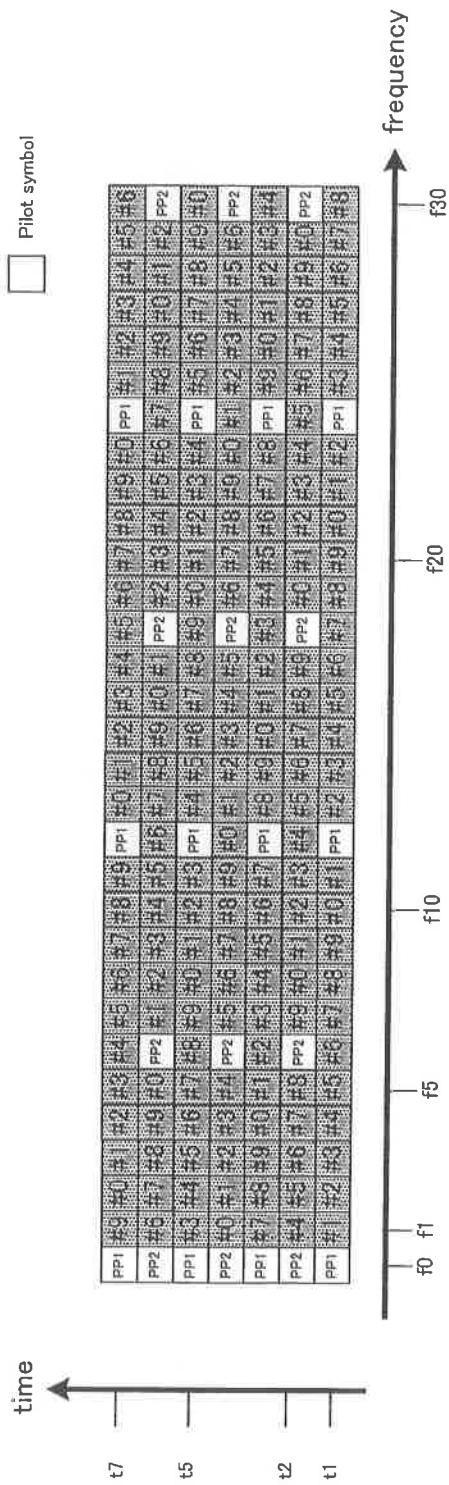


FIG. 93A

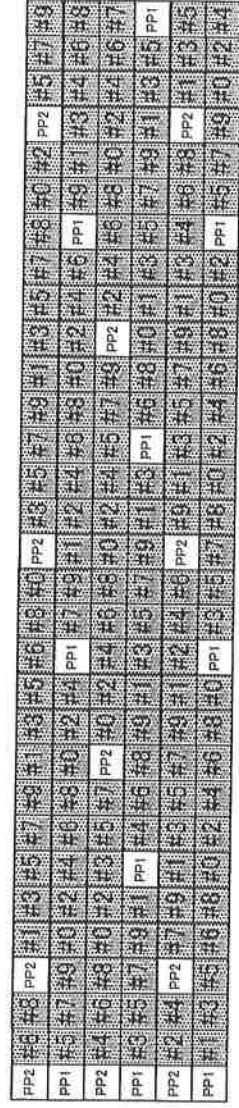
time

t5

t2

t1

Modulated
signal z1



93/94

FIG. 93B

time

t5

t2

t1

Modulated
signal z2

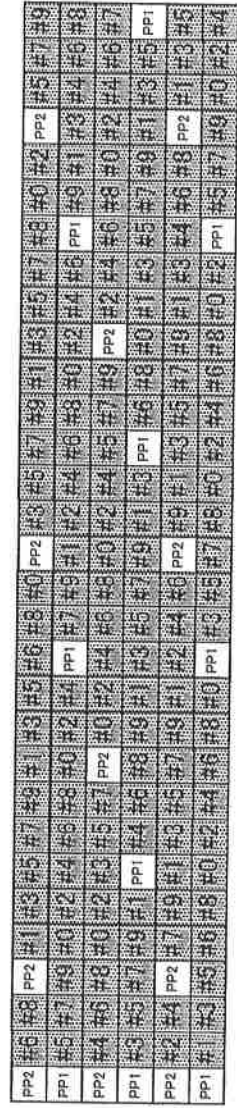


FIG. 94

