FIG. 1

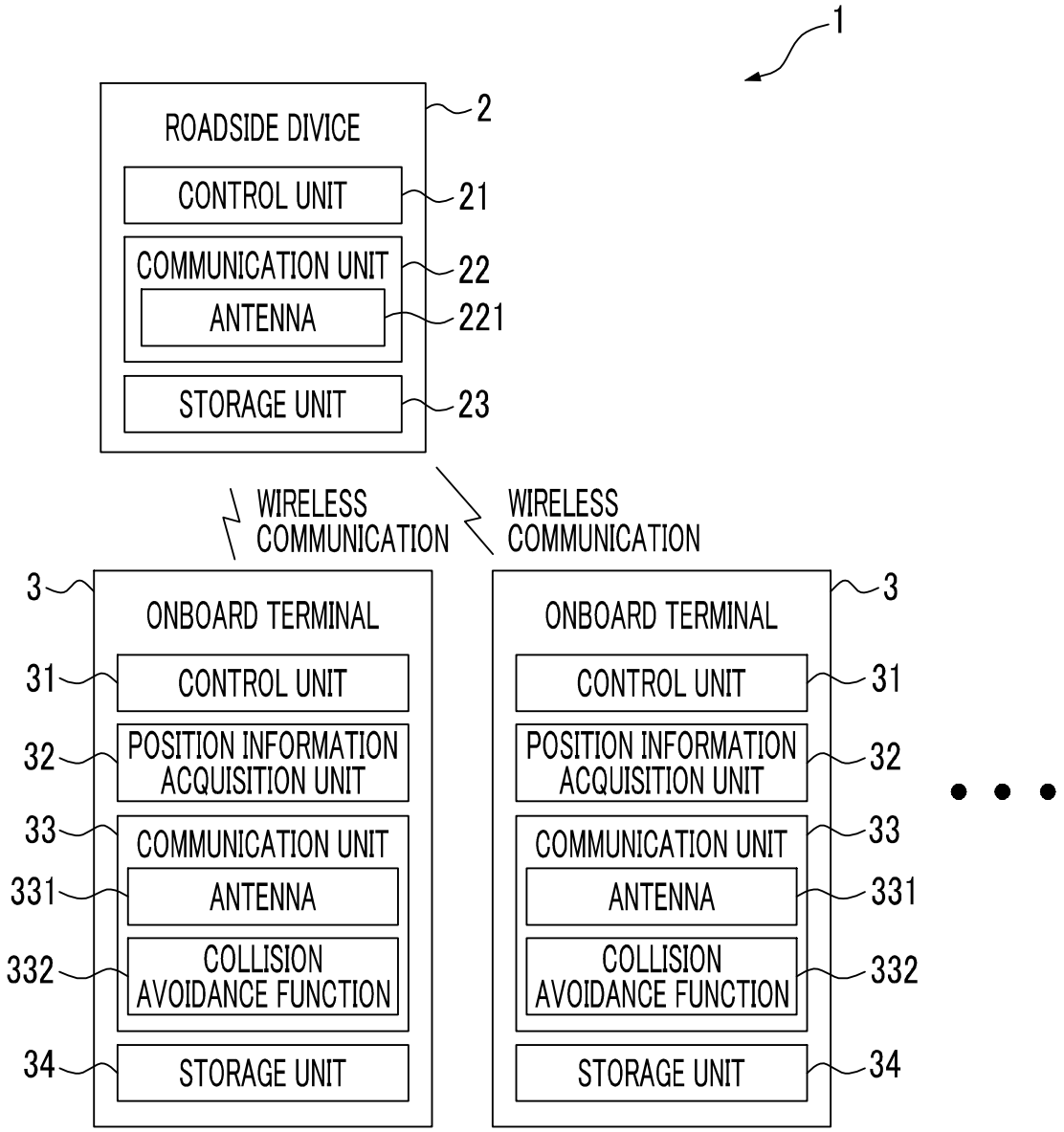

1
ROADSIDE DIVICE
2
CONTROL UNIT
21
COMMUNICATION UNIT
22
ANTENNA
221
STORAGE UNIT
23
WIRELESS COMMUNICATION
WIRELESS COMMUNICATION
3
ONBOARD TERMINAL
31
CONTROL UNIT
32
POSITION INFORMATION ACQUISITION UNIT
33
COMMUNICATION UNIT
331
ANTENNA
332
COLLISION AVOIDANCE FUNCTION
34
STORAGE UNIT
3
ONBOARD TERMINAL
31
CONTROL UNIT
32
POSITION INFORMATION ACQUISITION UNIT
33
COMMUNICATION UNIT
331
ANTENNA
332
COLLISION AVOIDANCE FUNCTION
34
STORAGE UNIT

FIG. 2

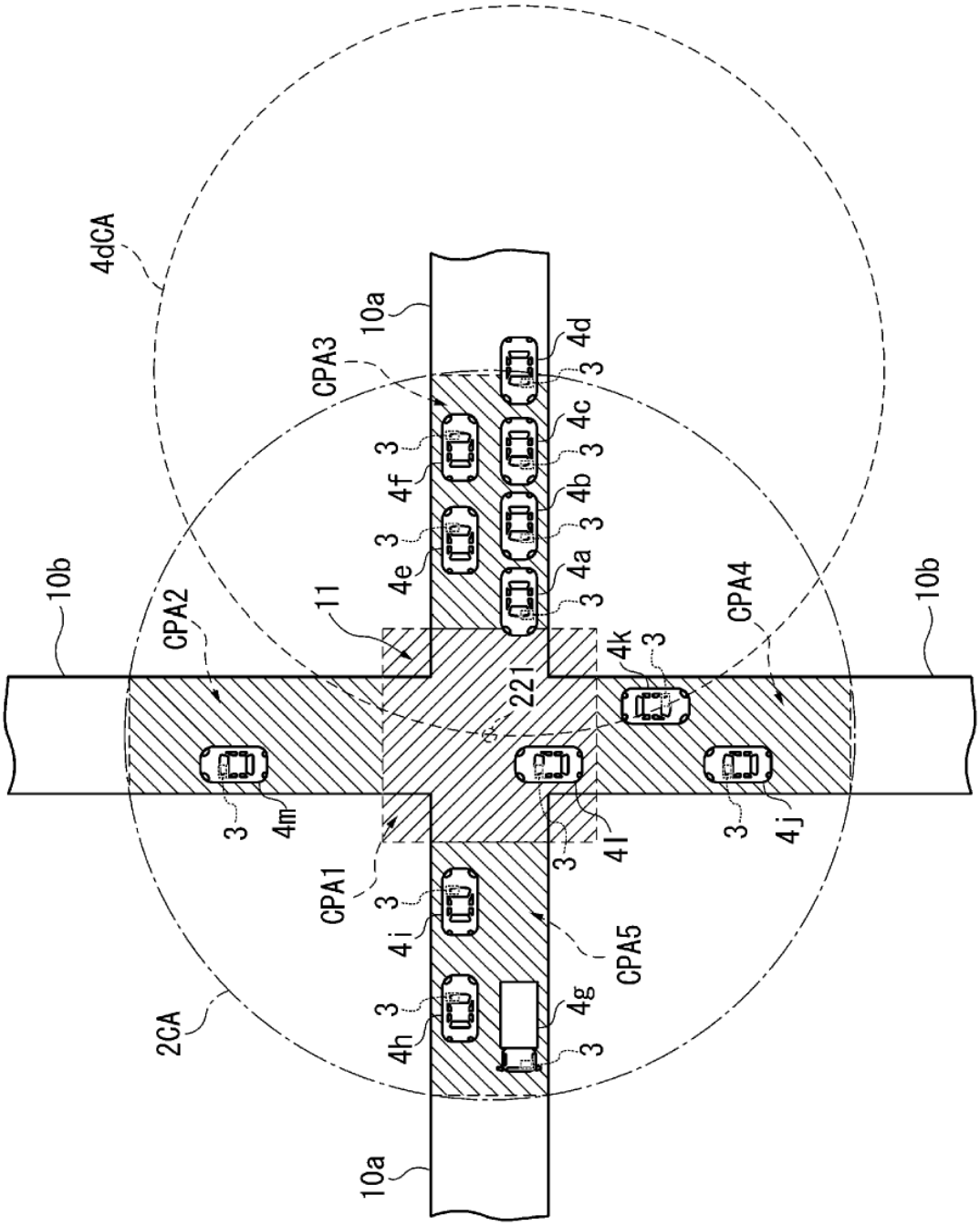

4dCA
10a
CPA3
4d
4c
4b
4a
4f
4e
3
11
10b
CPA2
CPA4
10b
4k
221
3
4m
4l
4j
CPA1
4i
CPA5
4g
4h
2CA
10a

FIG. 3

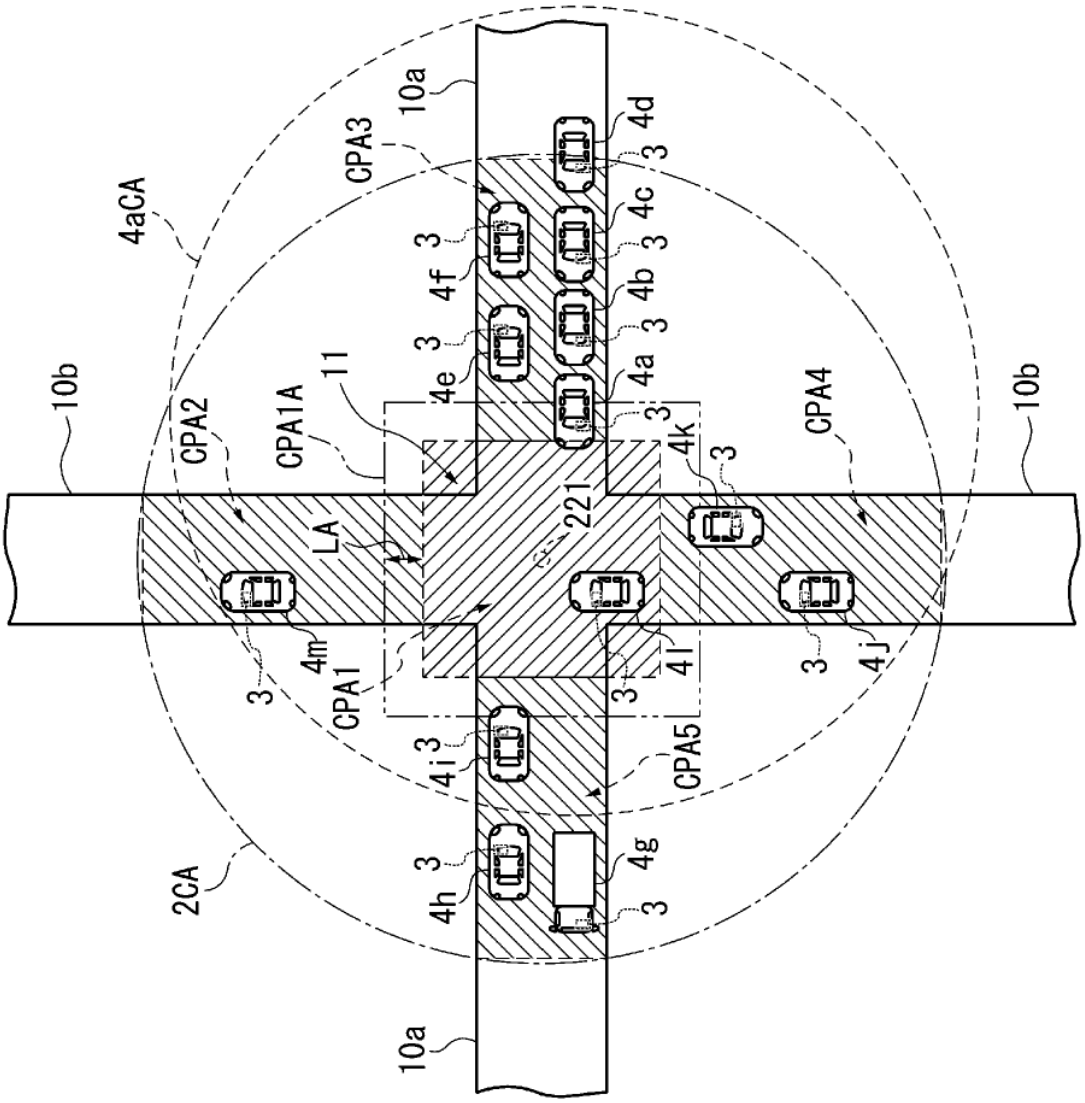

10a
CPA3
4d
4aCA
4c
4f
4b
10b
CPA2
CPA1A
11
4e
4a
4k
CPA4
10b
LA
221
4m
CPA1
4l
4j
4i
CPA5
2CA
4g
4h
10a

FIG. 4

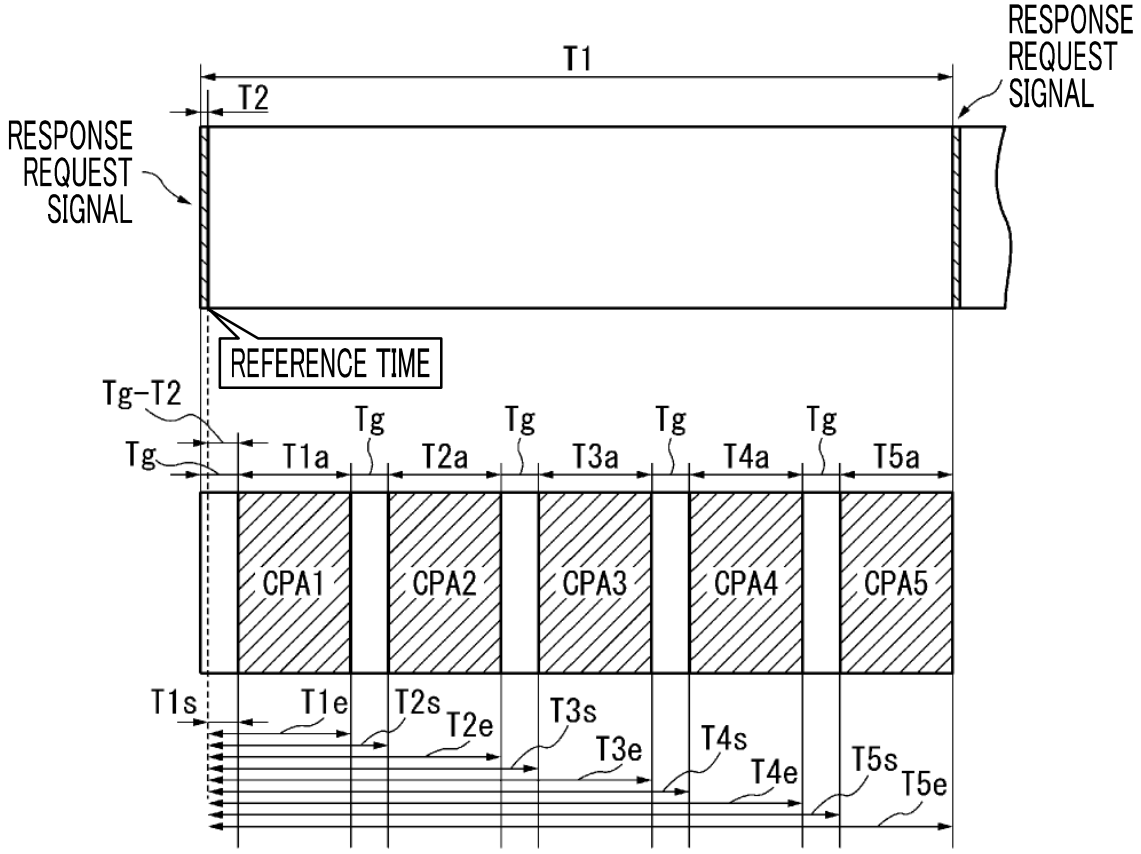

RESPONSE REQUEST SIGNAL
T1
T2
RESPONSE REQUEST SIGNAL
REFERENCE TIME
Tg-T2
Tg
Tg
Tg
Tg
Tg
T1a
T2a
T3a
T4a
T5a
CPA1
CPA2
CPA3
CPA4
CPA5
T1s
T1e
T2s
T2e
T3s
T3e
T4s
T4e
T5s
T5e

FIG. 5

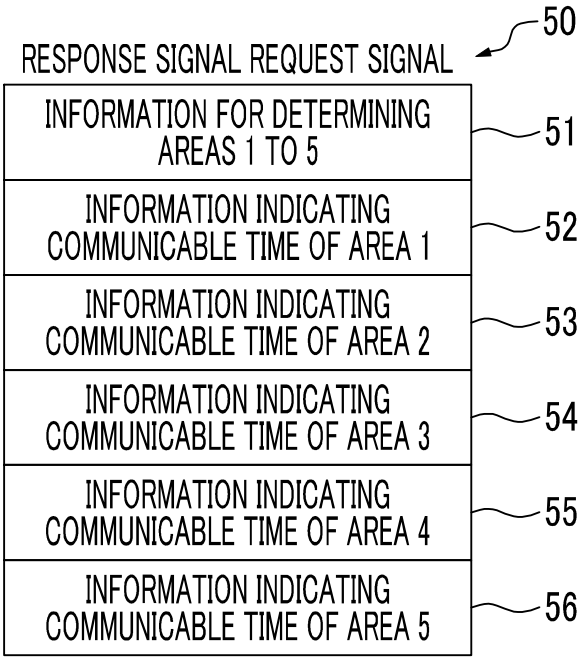

50
RESPONSE SIGNAL REQUEST SIGNAL
INFORMATION FOR DETERMINING AREAS 1 TO 5
51
INFORMATION INDICATING COMMUNICABLE TIME OF AREA 1
52
INFORMATION INDICATING COMMUNICABLE TIME OF AREA 2
53
INFORMATION INDICATING COMMUNICABLE TIME OF AREA 3
54
INFORMATION INDICATING COMMUNICABLE TIME OF AREA 4
55
INFORMATION INDICATING COMMUNICABLE TIME OF AREA 5
56

FIG. 6

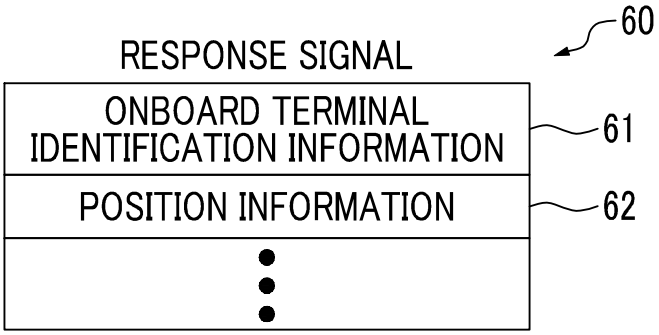

60
RESPONSE SIGNAL
ONBOARD TERMINAL IDENTIFICATION INFORMATION
61
POSITION INFORMATION
62

FIG. 7

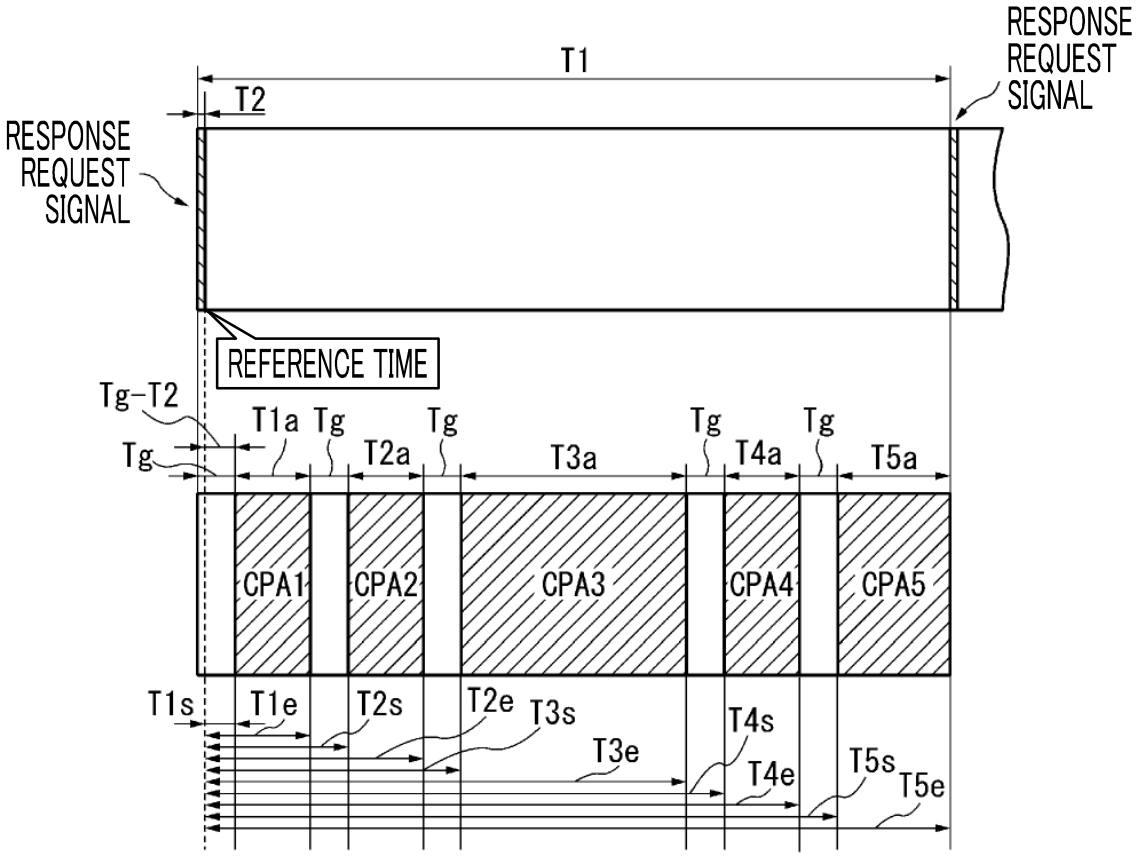

RESPONSE REQUEST SIGNAL
T1
T2
RESPONSE REQUEST SIGNAL
REFERENCE TIME
Tg-T2
Tg
T1a
Tg
Tg
T2a
T3a
Tg
T4a
Tg
T5a
CPA1
CPA2
CPA3
CPA4
CPA5
T1s
T1e
T2s
T2e
T3s
T3e
T4s
T4e
T5s
T5e

FIG. 8

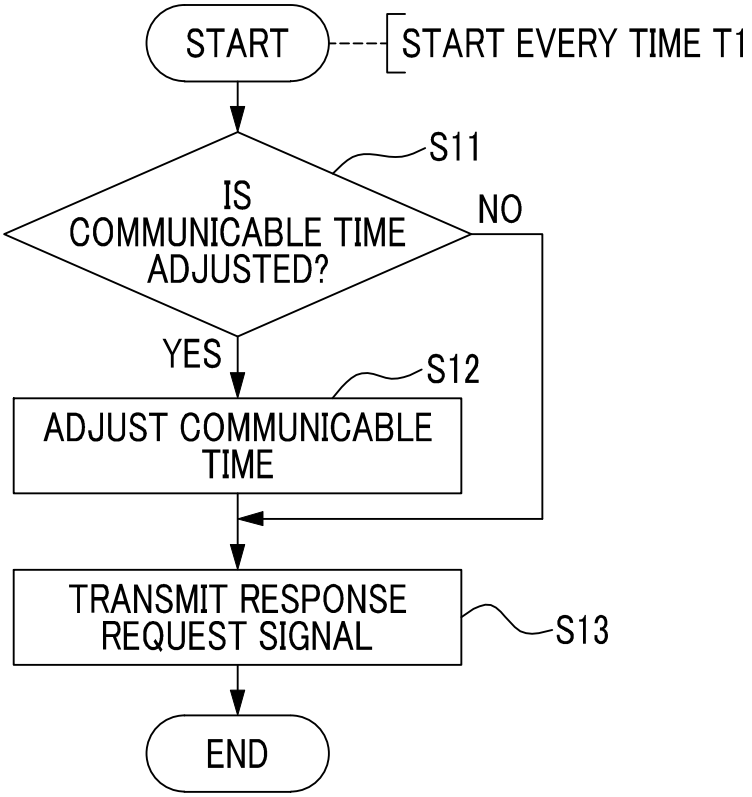

START
START EVERY TIME T1
S11
IS COMMUNICABLE TIME ADJUSTED?
NO
YES
S12
ADJUST COMMUNICABLE TIME
TRANSMIT RESPONSE REQUEST SIGNAL
S13
END

FIG. 9

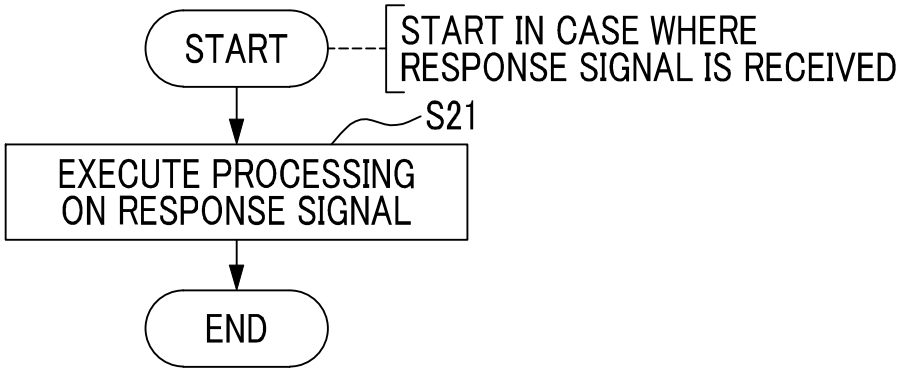

START
START IN CASE WHERE RESPONSE SIGNAL IS RECEIVED
S21
EXECUTE PROCESSING ON RESPONSE SIGNAL
END

FIG. 10

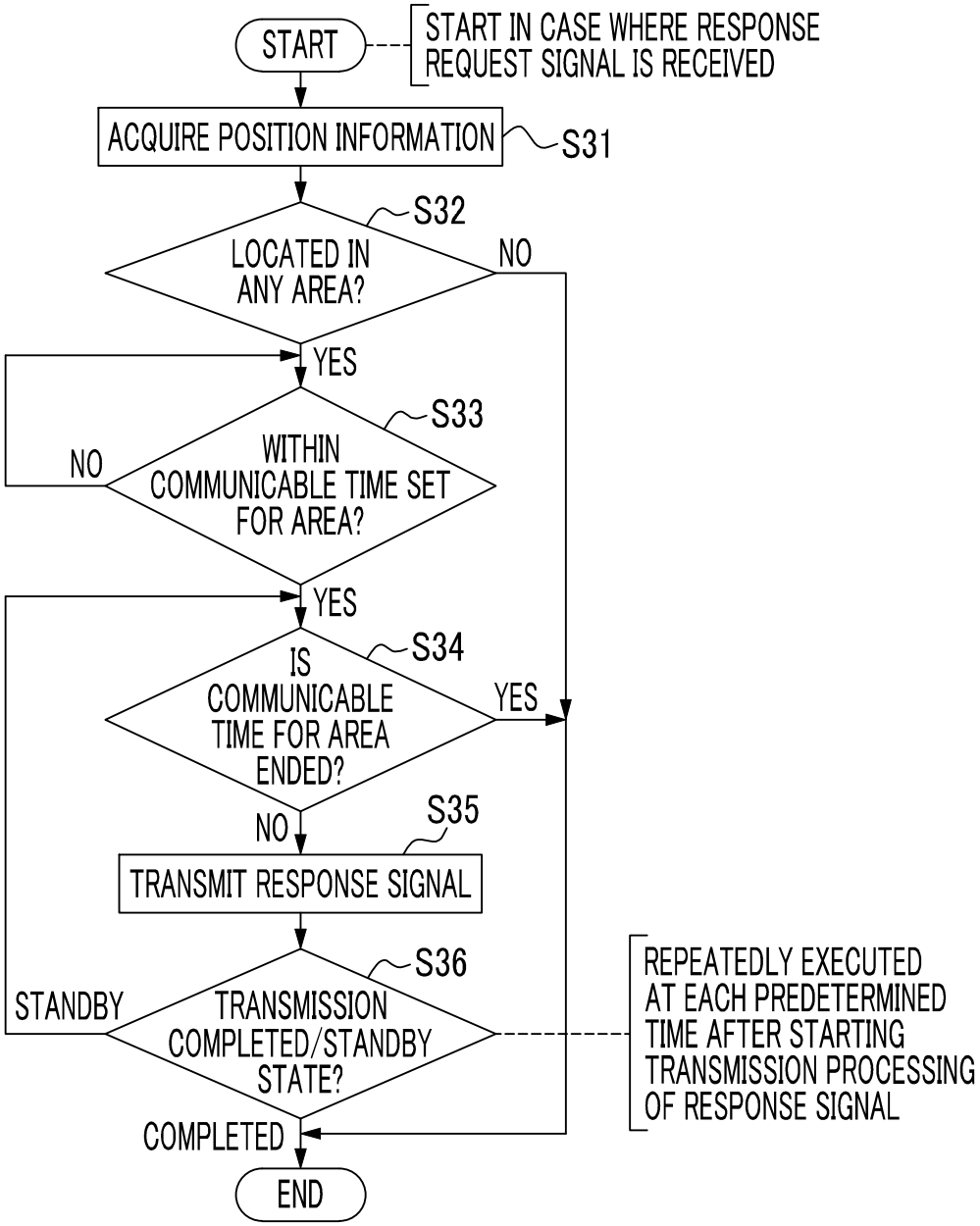
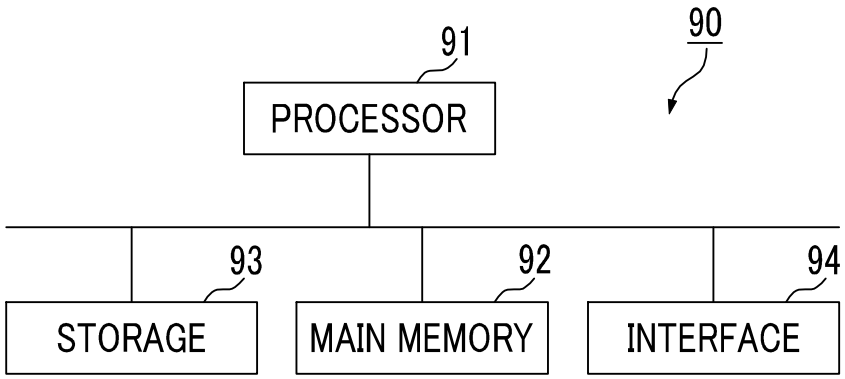

START
START IN CASE WHERE RESPONSE REQUEST SIGNAL IS RECEIVED
ACQUIRE POSITION INFORMATION
S31
S32
LOCATED IN ANY AREA?
NO
YES
S33
WITHIN COMMUNICABLE TIME SET FOR AREA?
NO
YES
S34
IS COMMUNICABLE TIME FOR AREA ENDED?
YES
NO
S35
TRANSMIT RESPONSE SIGNAL
S36
STANDBY
TRANSMISSION COMPLETED/STANDBY STATE?
REPEATEDLY EXECUTED AT EACH PREDETERMINED TIME AFTER STARTING TRANSMISSION PROCESSING OF RESPONSE SIGNAL
COMPLETED
END

FIG. 11


90
91
PROCESSOR
93
92
94
STORAGE
MAIN MEMORY
INTERFACE