

FIG.1

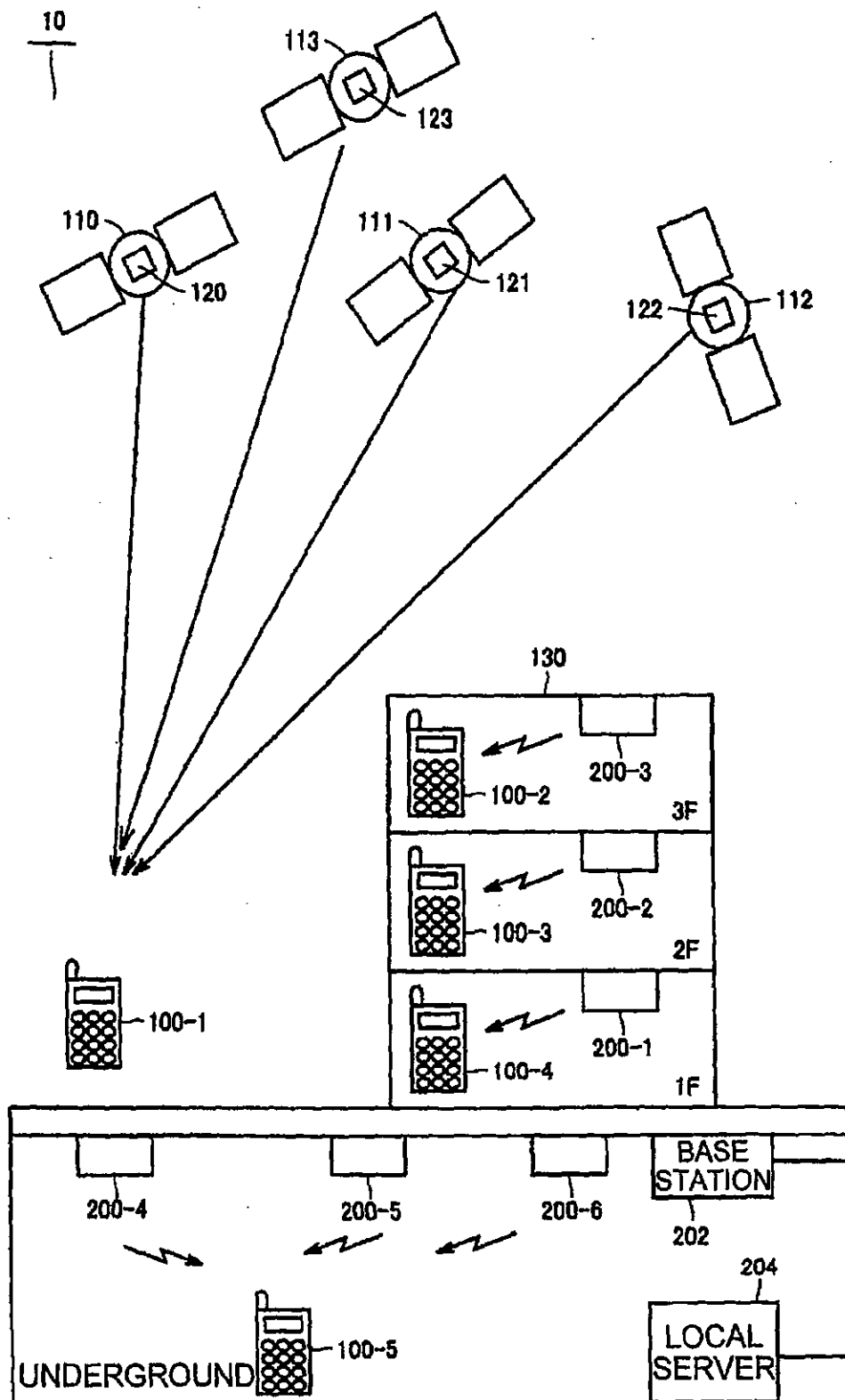


FIG.2

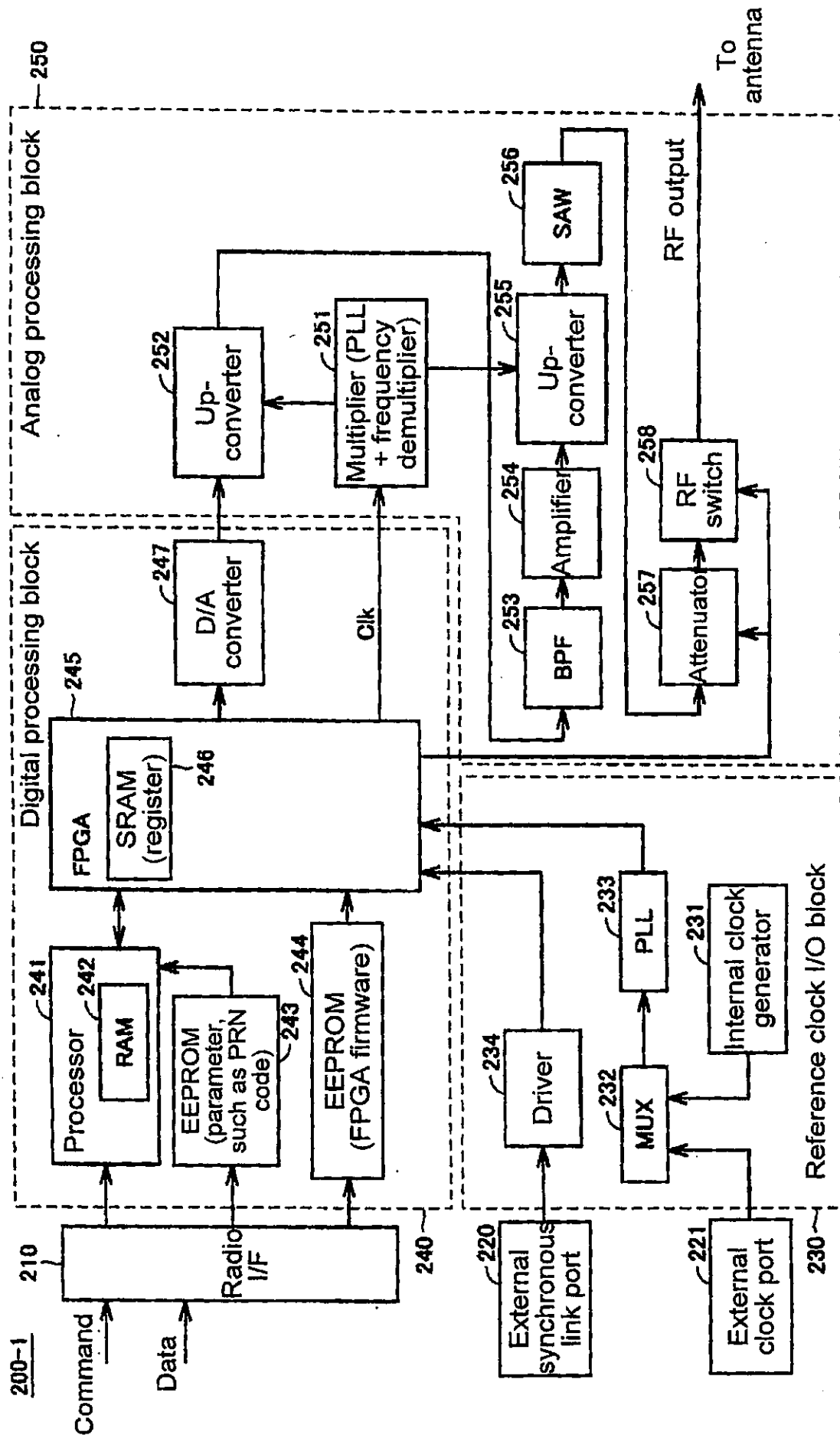


FIG.3

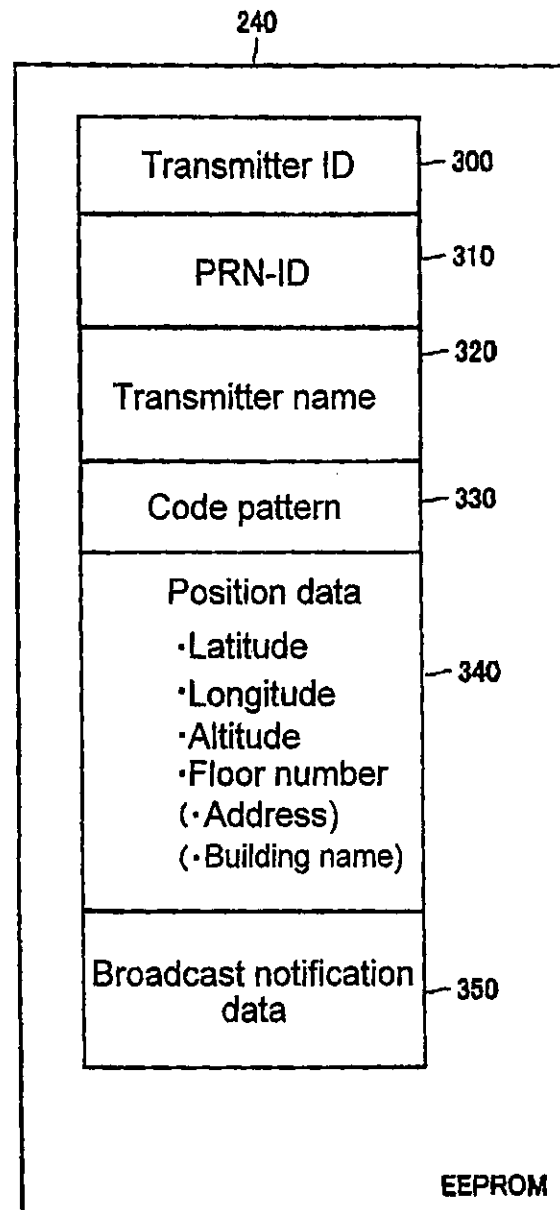


FIG.4

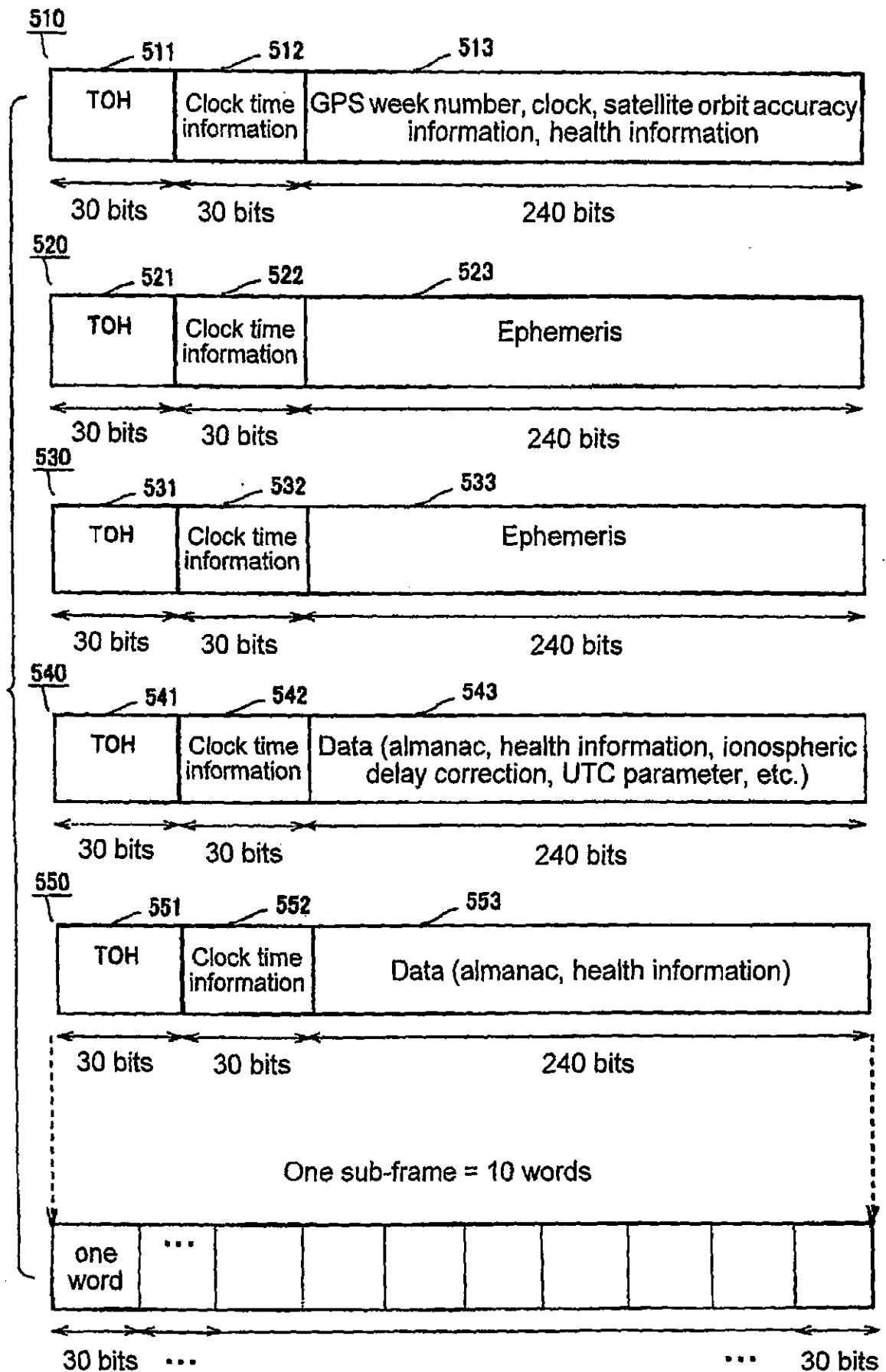


FIG.5

(One word/frame)

|          |                 |          |         |        |
|----------|-----------------|----------|---------|--------|
| Preamble | Message-type ID | Data bit | Counter | Parity |
|----------|-----------------|----------|---------|--------|

(Two word/frame)

|          |                 |          |         |        |          |         |        |
|----------|-----------------|----------|---------|--------|----------|---------|--------|
| Preamble | Message-type ID | Data bit | Counter | Parity | Data bit | Counter | Parity |
|----------|-----------------|----------|---------|--------|----------|---------|--------|

(Three word/frame)

|          |                 |          |         |        |          |         |        |          |         |        |
|----------|-----------------|----------|---------|--------|----------|---------|--------|----------|---------|--------|
| Preamble | Message-type ID | Data bit | Counter | Parity | Data bit | Counter | Parity | Data bit | Counter | Parity |
|----------|-----------------|----------|---------|--------|----------|---------|--------|----------|---------|--------|

FIG.6

| Message-Type ID<br>(MID) | Frame Length<br>(Word) | Counter                | Minimum Repetitive<br>Cycle (sec) |
|--------------------------|------------------------|------------------------|-----------------------------------|
| 0("000")                 | 3                      | position information 1 | 12                                |
| 1("001")                 | 4                      | position information 2 |                                   |
| 2("010")                 | —                      | reserve                | —                                 |
| 3("011")                 | 1                      | short ID               | 6                                 |
| 4("100")                 | 2                      | medium ID              | 12                                |
| 5("101")                 | —                      | reserve                | 24                                |
| 6("110")                 | —                      | reserve                | —                                 |
| 7("111")                 | —                      | reserve                | —                                 |

FIG.7

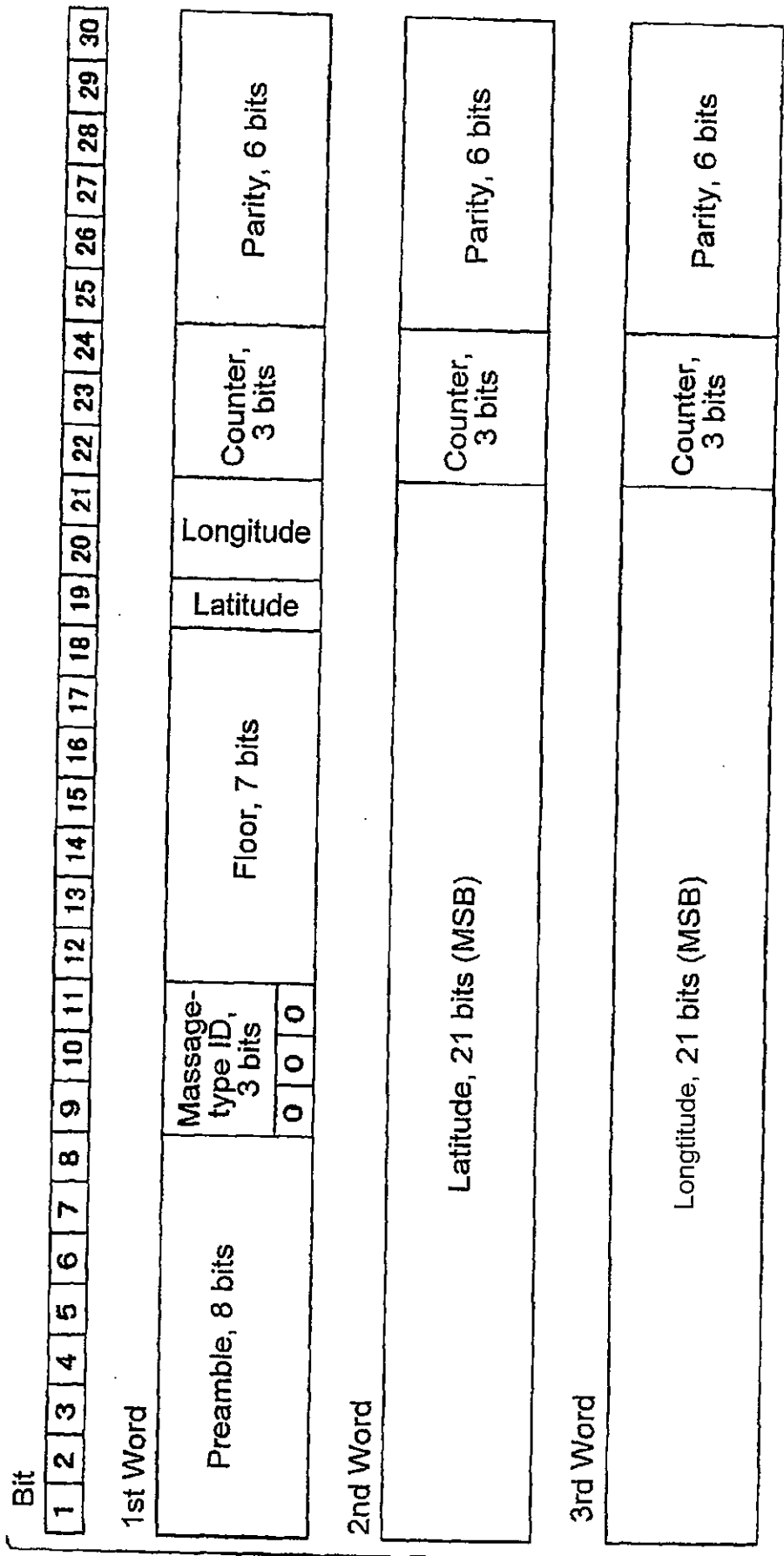


FIG.8

| # | Contents     | Bit Length | LSB                 |         | Range         |   |               |
|---|--------------|------------|---------------------|---------|---------------|---|---------------|
|   |              |            |                     |         | Minimum Value | ~ | Maximum Value |
| 1 | Floor (n-th) | 7          | 1st floor           |         | - 26th floor  | ~ | 100th floor   |
| 2 | Latitude     | 22         | 4.3 E - 0.5 degrees | (4.78m) | - 90 degrees  | ~ | 90 degrees    |
| 3 | Longitude    | 23         | 4.3 E - 0.5 degrees | (4.78m) | - 180 degrees | ~ | 180 degrees   |

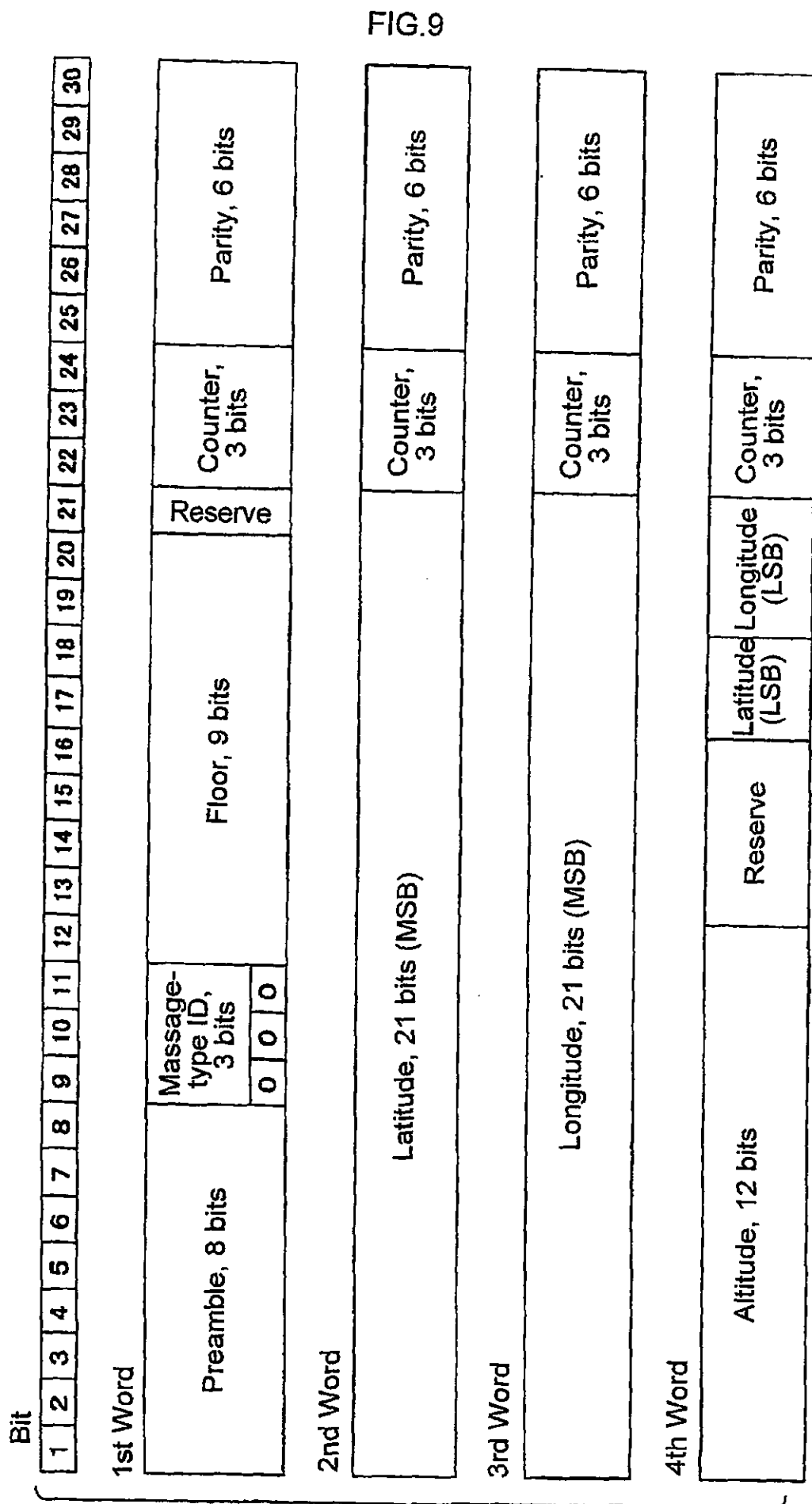


Fig.10

| # | Contents     | Bit Length | LSB               |         | Range         |   |               |
|---|--------------|------------|-------------------|---------|---------------|---|---------------|
|   |              |            |                   |         | Minimum Value | ~ | Maximum Value |
| 1 | Floor (n-th) | 9          | 1st floor         |         | - 26th floor  | ~ | 100th floor   |
| 2 | Latitude     | 23         | 2.1 E-0.5 degrees | (2.39m) | - 90 degrees  | ~ | 90 degrees    |
| 3 | Longitude    | 24         | 2.1 E-0.5 degrees | (2.39m) | - 180 degrees | ~ | 180 degrees   |
| 4 | Altitude     | 12         | 1m                |         | -95m          | ~ | 4000m         |

Fig.11

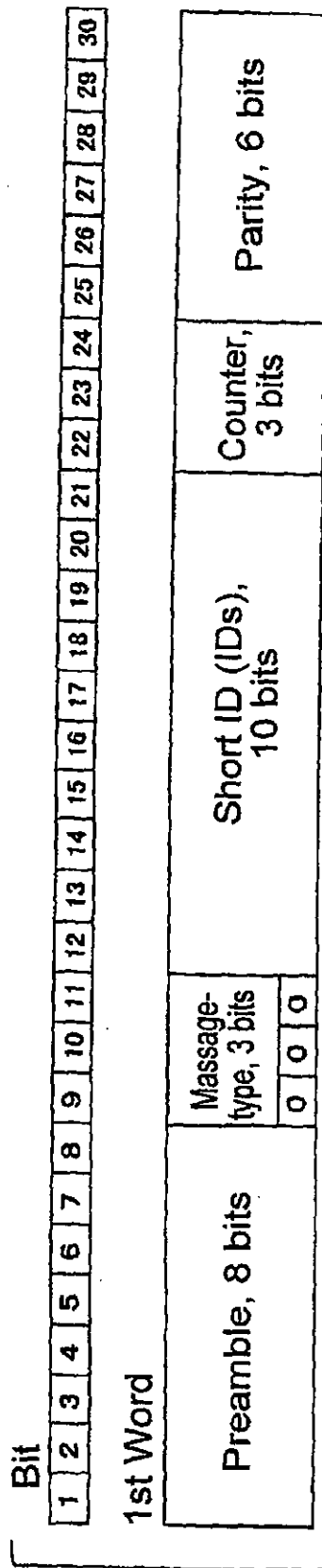


Fig.12

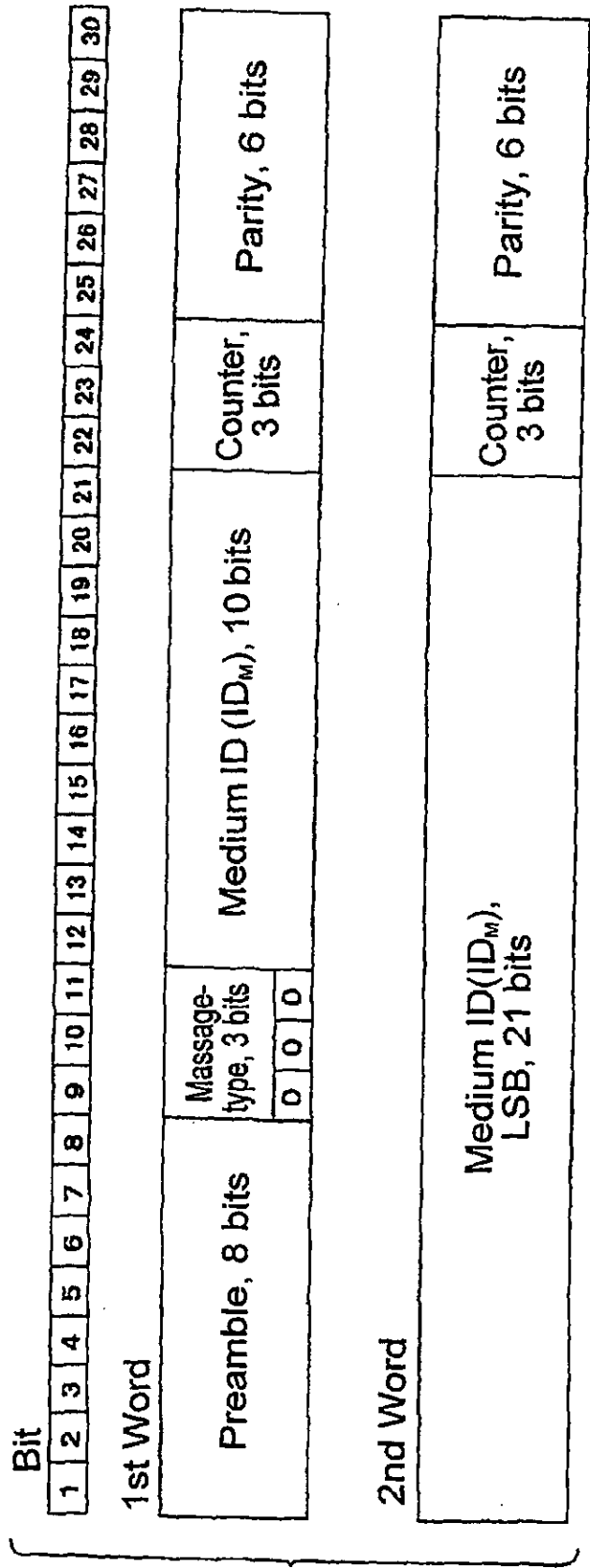


FIG.13

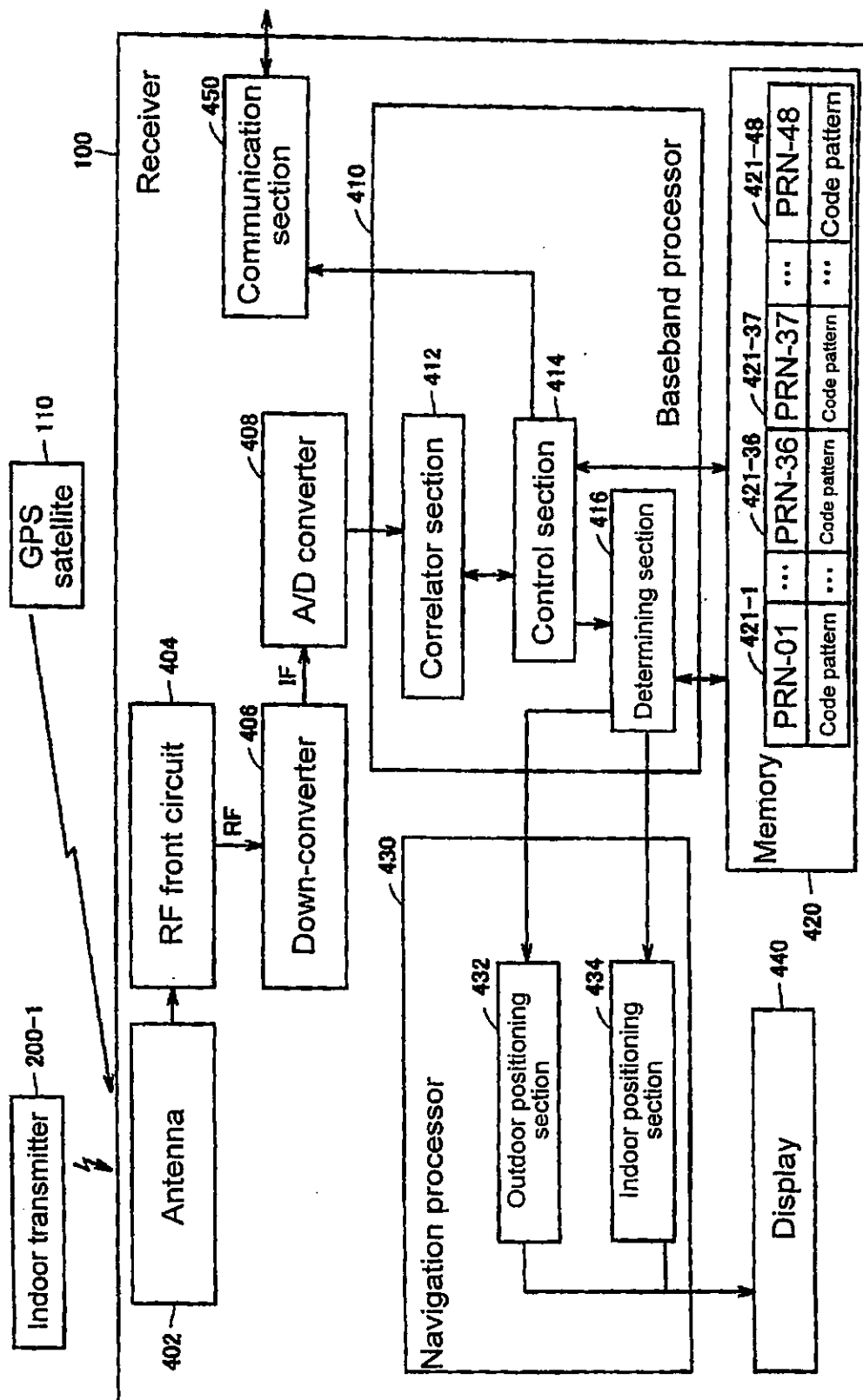


FIG.14

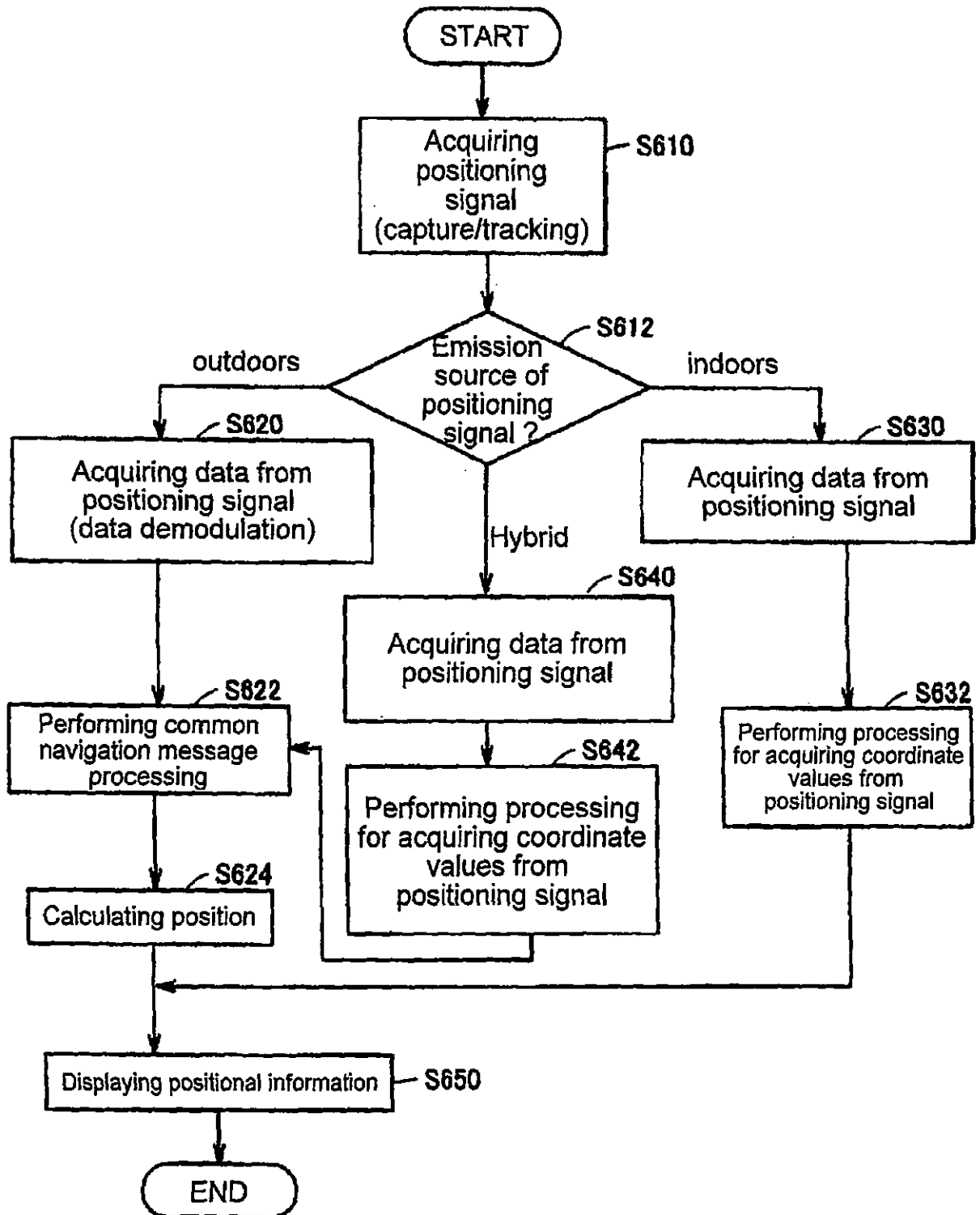


FIG.15

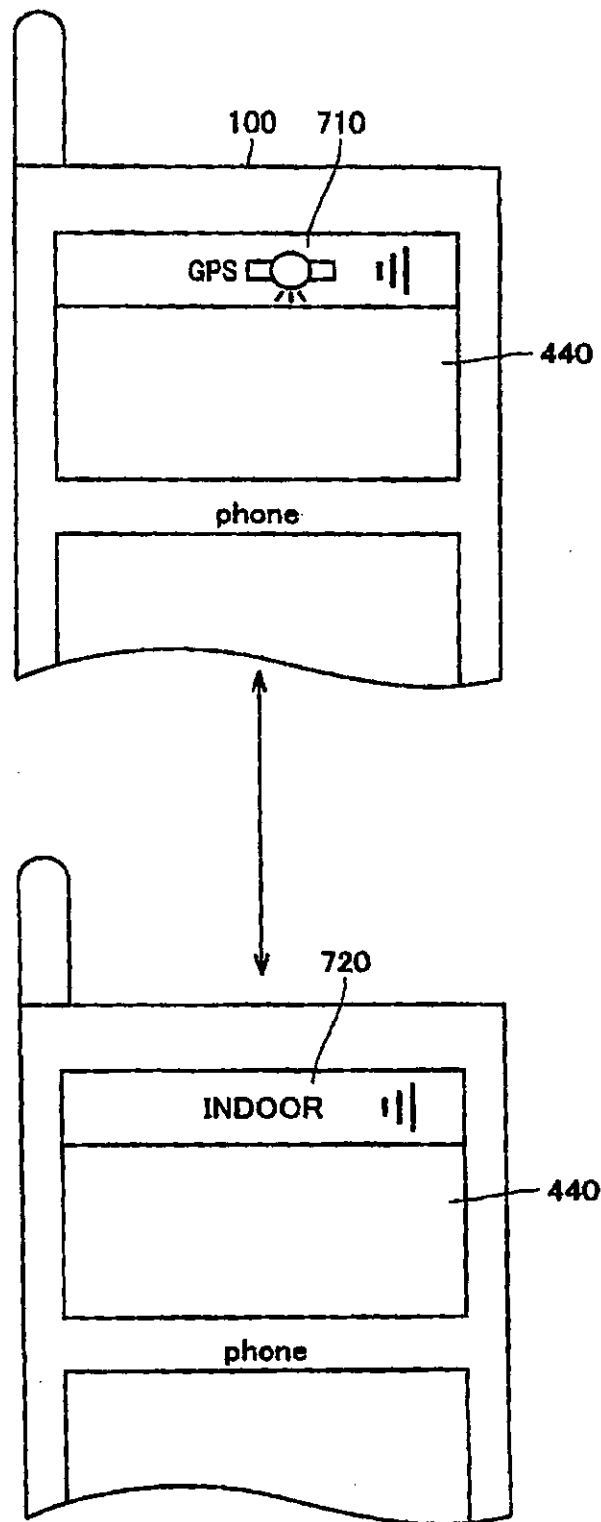


FIG.16

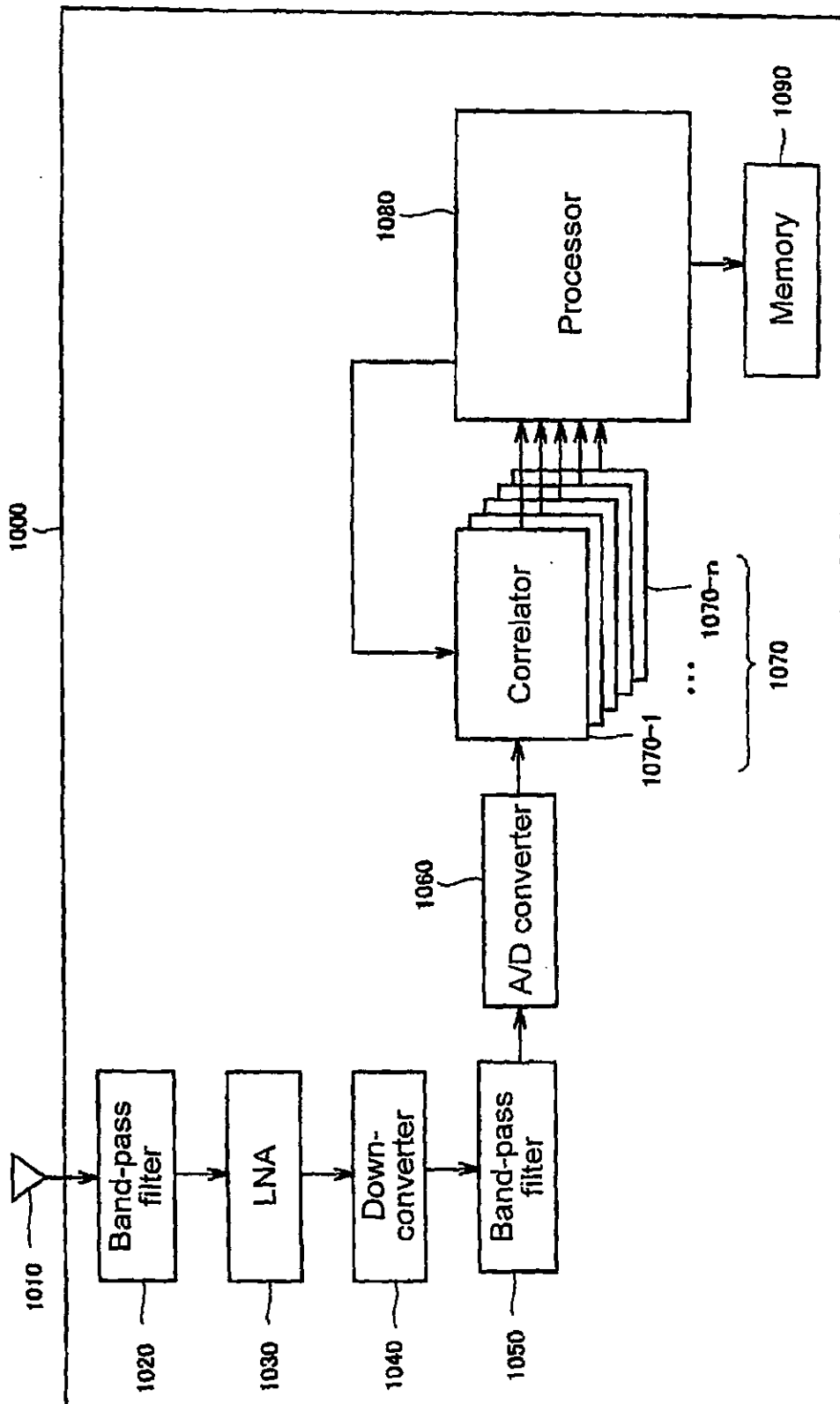


FIG.17

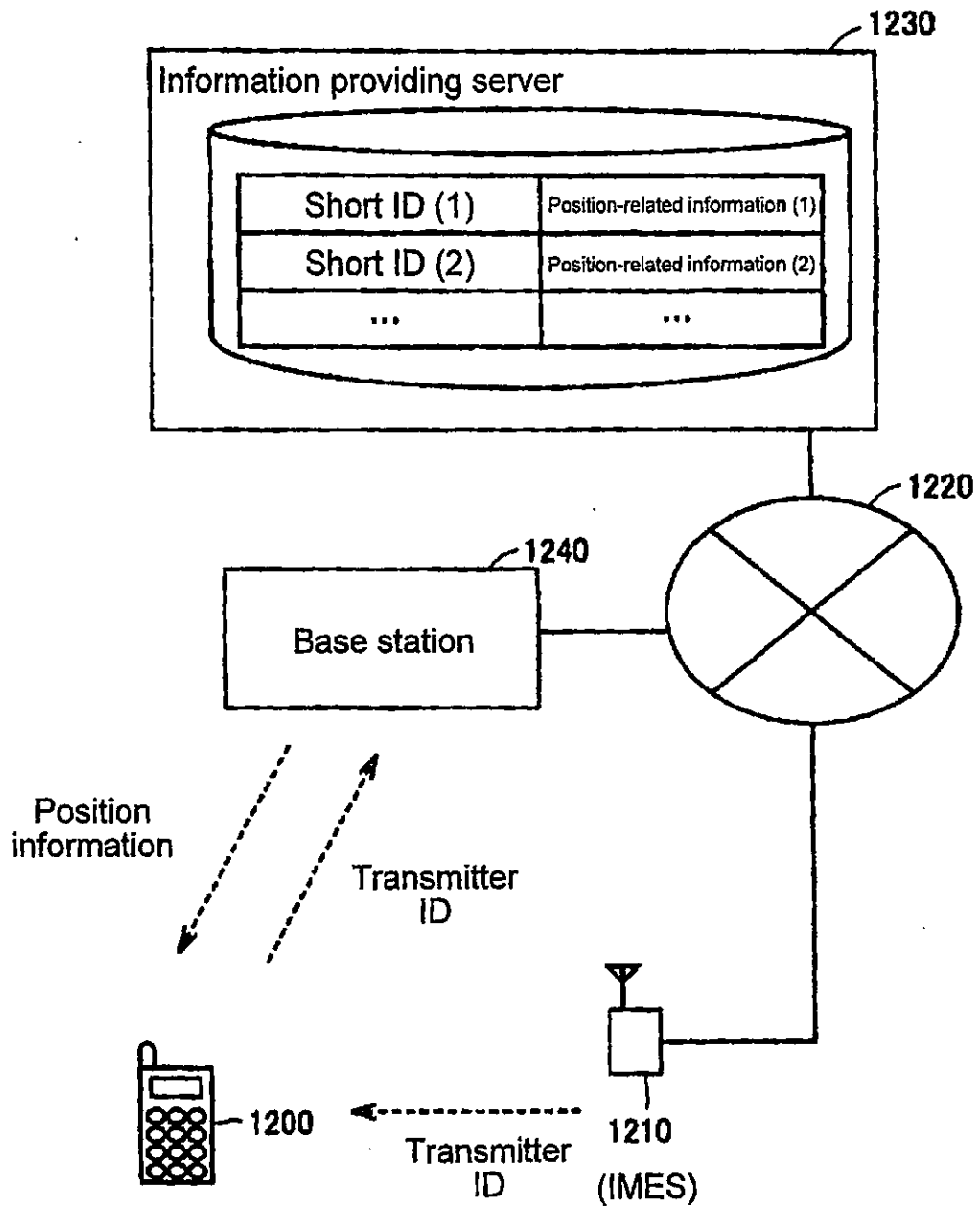


FIG. 18

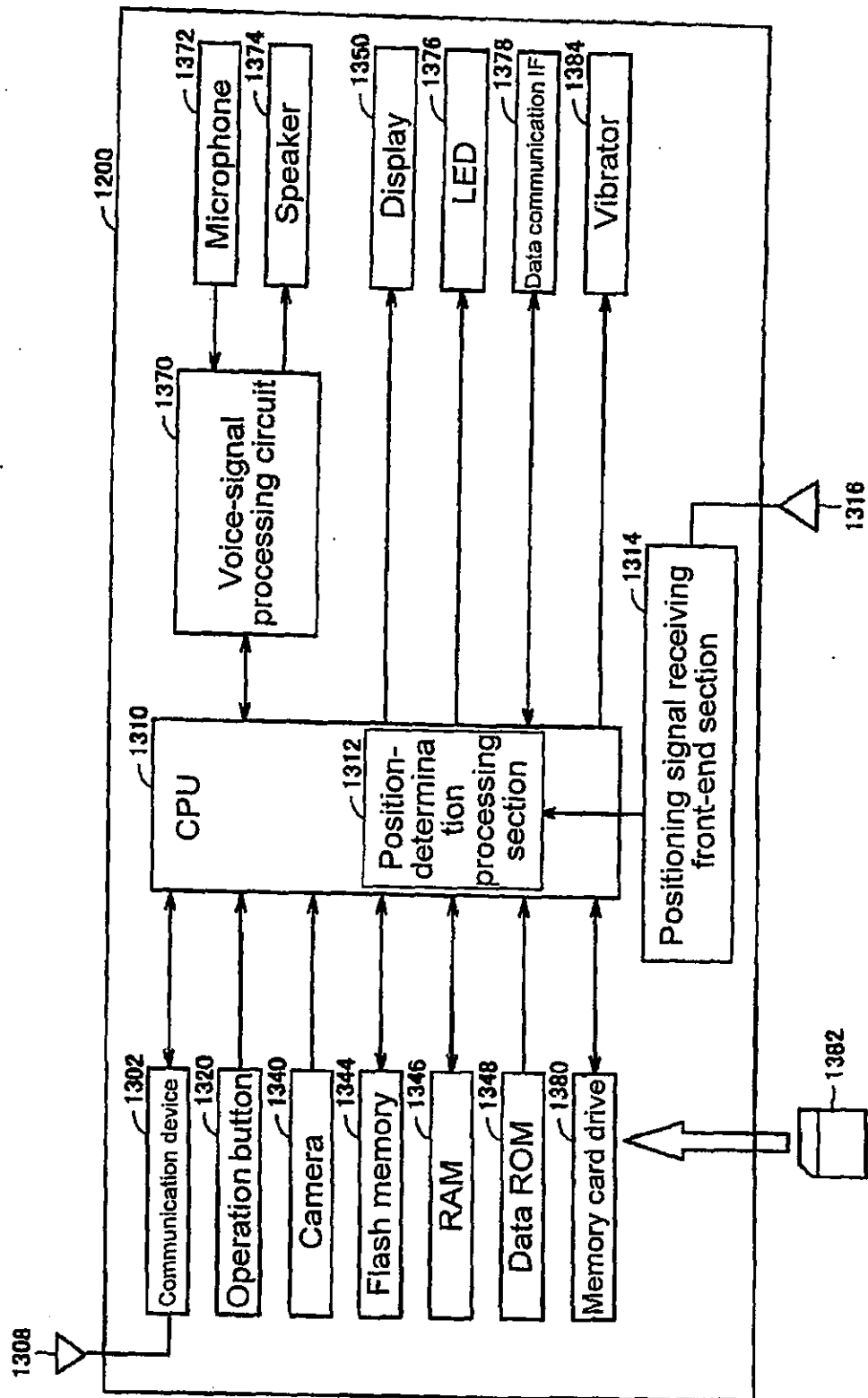


FIG.19

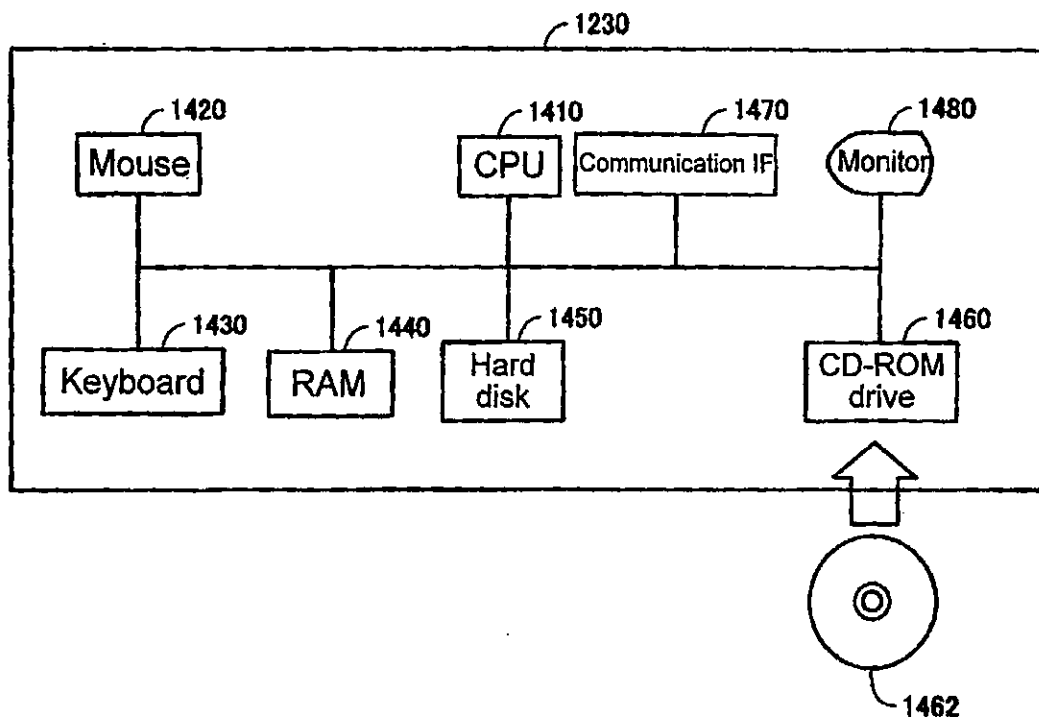


FIG.20

(One word/frame)

|          |                 |          |        |
|----------|-----------------|----------|--------|
| Preamble | Message-type ID | Data bit | Parity |
|----------|-----------------|----------|--------|

(Two word/frame)

|          |                 |          |        |         |          |        |
|----------|-----------------|----------|--------|---------|----------|--------|
| Preamble | Message-type ID | Data bit | Parity | Counter | Data bit | Parity |
|----------|-----------------|----------|--------|---------|----------|--------|

(Three word/frame)

|          |                 |          |        |         |          |        |         |          |        |
|----------|-----------------|----------|--------|---------|----------|--------|---------|----------|--------|
| Preamble | Message-type ID | Data bit | Parity | Counter | Data bit | Parity | Counter | Data bit | Parity |
|----------|-----------------|----------|--------|---------|----------|--------|---------|----------|--------|

FIG.21

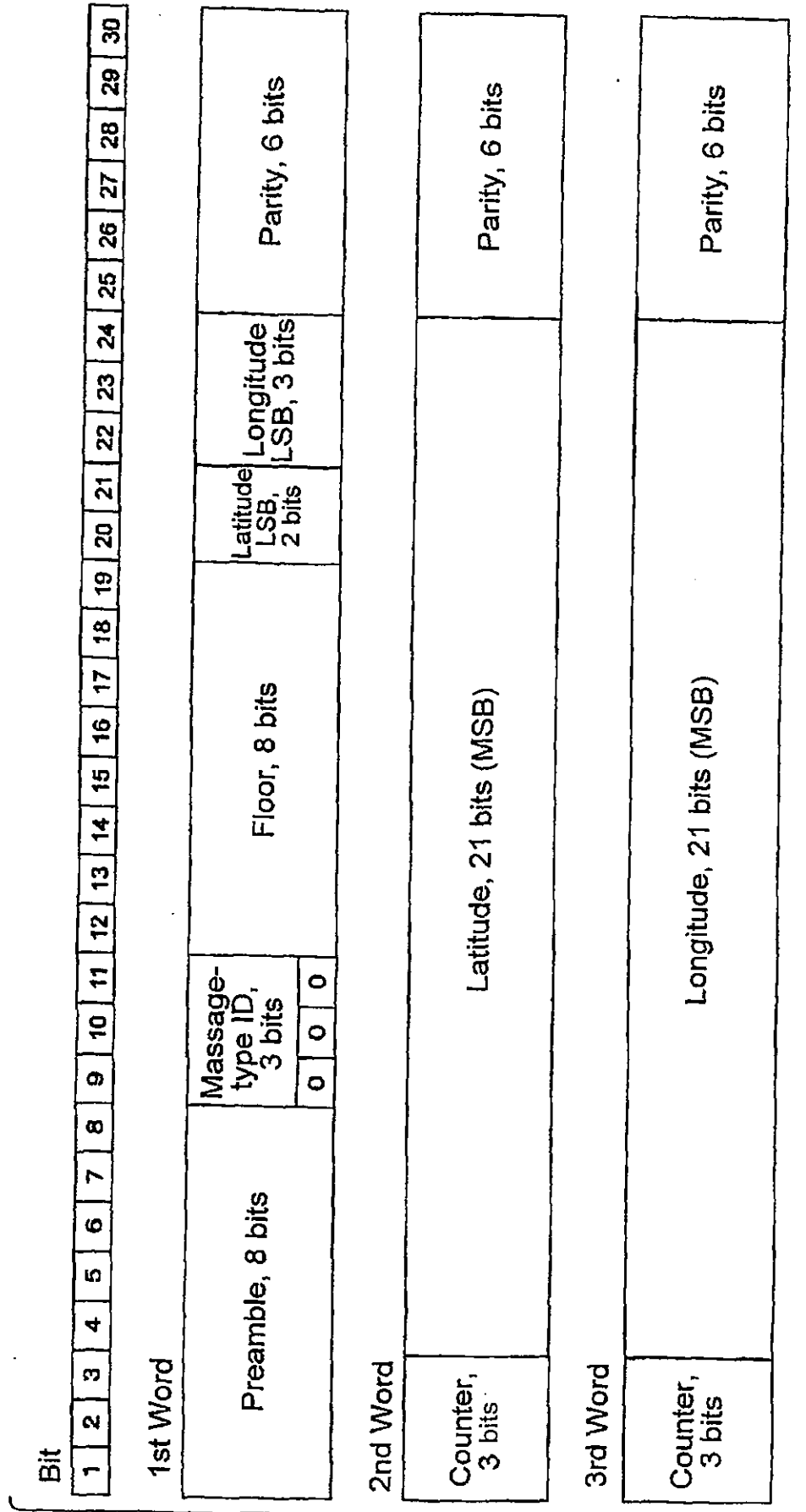


FIG.22

| # | Contents     | Bit Length | LSB                 |         | Range         |   |               |
|---|--------------|------------|---------------------|---------|---------------|---|---------------|
|   |              |            |                     |         | Minimum Value | ~ | Maximum Value |
| 1 | Floor (n-th) | 8          | 1st floor           |         | -50th floor   | ~ | 204th floor   |
| 2 | Latitude     | 23         | 2.1 E - 0.5 degrees | (2.39m) | - 90 degrees  | ~ | 90 degrees    |
| 3 | Longitude    | 24         | 2.1 E - 0.5 degrees | (2.39m) | - 180 degrees | ~ | 180 degrees   |

FIG.23

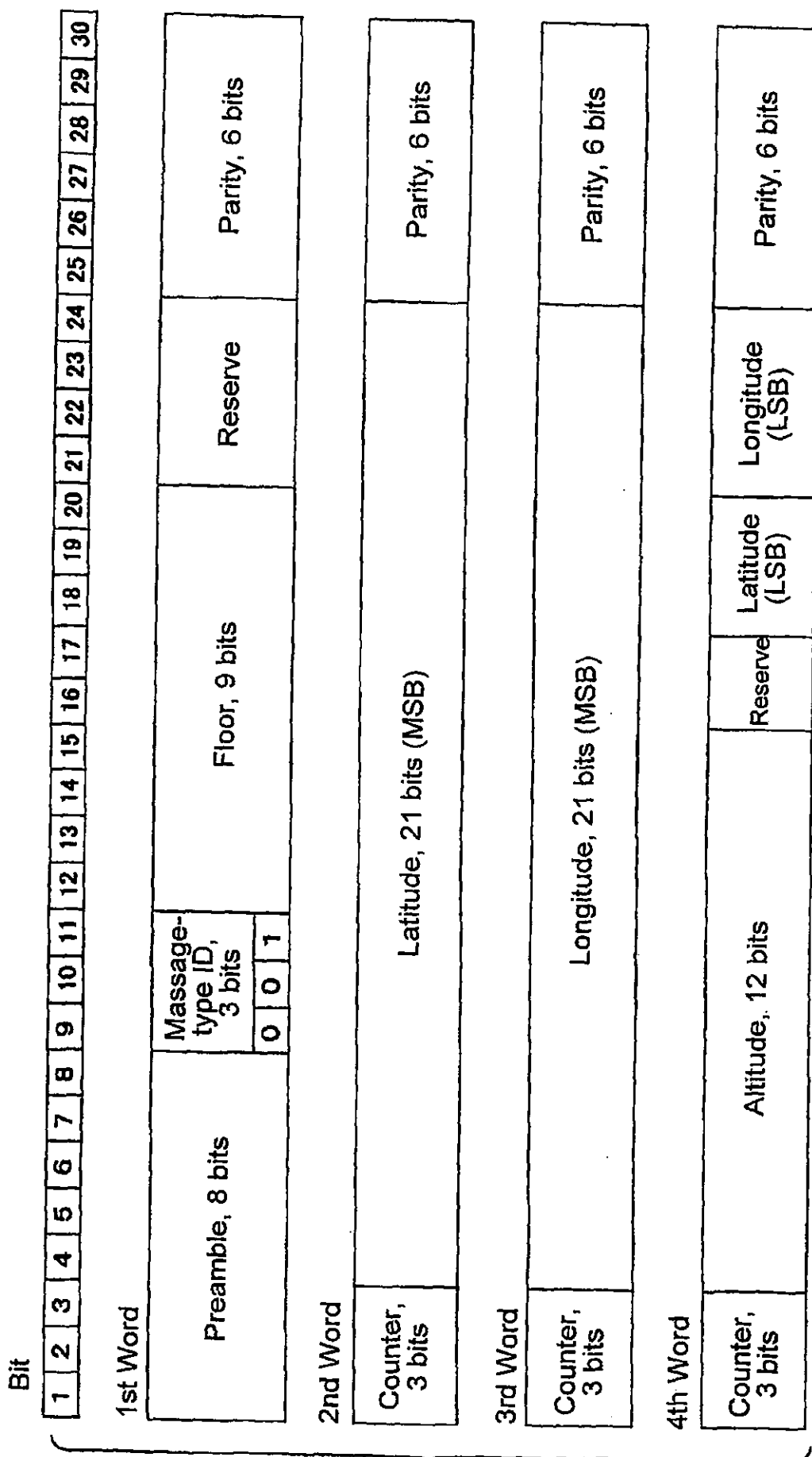
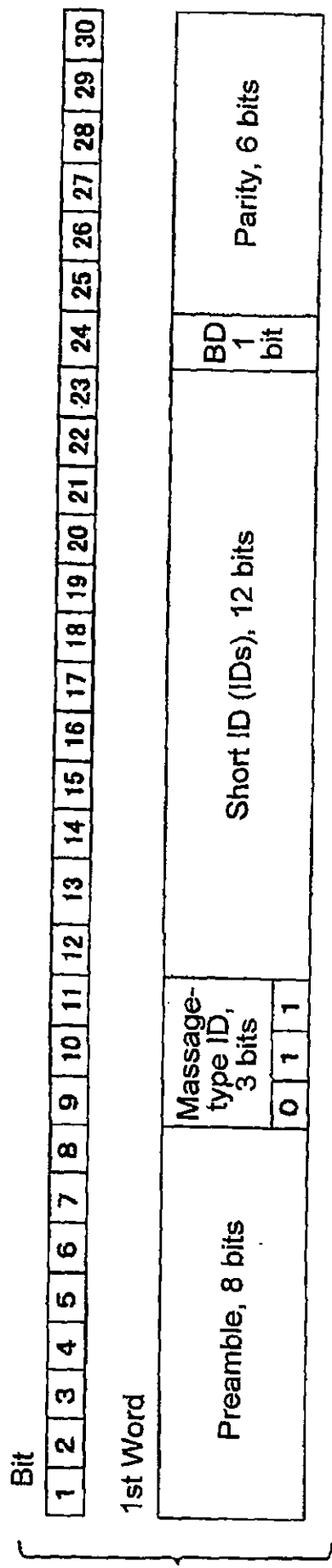


FIG.24

| # | Contents     | Bit Length | LSB                 |         | Range         |   |               |
|---|--------------|------------|---------------------|---------|---------------|---|---------------|
|   |              |            |                     |         | Minimum Value | ~ | Maximum Value |
| 1 | Floor (n-th) | 9          | 1st floor           |         | - 50th floor  | ~ | 205th floor   |
| 2 | Latitude     | 24         | 1.1 E - 0.5 degrees | (1.19m) | - 90 degrees  | ~ | 90 degrees    |
| 3 | Longitude    | 25         | 1.1 E - 0.5 degrees | (1.19m) | - 180 degrees | ~ | 180 degrees   |
| 4 | Altitude     | 12         | 1m                  |         | -95m          | ~ | 4000m         |

FIG.25



A

FIG.26

