



コントロールリソースセット情報要素(ControlResourceSet information element)

```
-- ASN1START
-- TAG-CONTROLRESOURCESET-START

ControlResourceSet ::=
    SEQUENCE {
        -- Corresponds to L1 parameter 'CORESET-ID'
        -- Value 0 identifies the common CORESET configured in MIB and in ServingCellConfigCommon
        -- Values 1..maxNrofControlResourceSets-1 identify CORESETs configured by dedicated signalling
        -- The controlResourceSetId is unique among the BWPs of a ServingCell.
        controlResourceSetId
            INTEGER(0..maxNrofControlResourceSets-1),
        -- Frequency domain resources for the CORESET. Each bit corresponds to a group of 6 RBs, with grouping starting from PRB 0, which is fully
        -- contained in the bandwidth part within which the CORESET is configured.
        -- The most significant bit corresponds to the group of lowest frequency which is fully contained in the bandwidth part within which the
        -- CORESET is configured, each next subsequent lower significance bit corresponds to the next lowest frequency group fully contained within
        -- the bandwidth part within which the CORESET is configured, if any.
        -- Bits corresponding to a group not fully contained within the bandwidth part within which the CORESET is configured are set to zero.
        -- Corresponds to L1 parameter 'CORESET-freq-domain' (see 38.211, section 7.3.2.2)
        frequencyDomainResources
            BIT STRING (SIZE (45)),
        -- Contiguous time duration of the CORESET in number of symbols
        -- Corresponds to L1 parameter 'CORESET-time-duration' (see 38.211, section 7.3.2.2FFS_Section)
        duration
            INTEGER(1..maxCoreSetDuration),
        -- Mapping of Control Channel Elements (CCE) to Resource Element Groups (REG)
        -- Corresponds to L1 parameter 'CORESET-CCE-REG-mapping-type' (see 38.211 Section sections 7.3.2.2 and 7.4.1.3.2)
        cce-REG-MappingType
            CHOICE {
                interleaved
                    -- Resource Element Groups (REGs) can be bundled to create REG bundles. This parameter defines the size of such bundles.
                    -- Corresponds to L1 parameter 'CORESET-REG-bundle-size' (see 38.211, section FFS_Section)
                    reg-BundleSize
                        ENUMERATED {n2, n3, n6},
                    -- Corresponds to L1 parameter 'CORESET-interleaver-size' (see 38.211, 38.213, section FFS_Section)
                    interleaverSize
                        ENUMERATED {n2, n3, n6},
                    -- Corresponds to L1 parameter 'CORESET-shift-index' (see 38.211, section 7.3.2.2)
                    shiftIndex
                        INTEGER(0..maxNrofPhysicalResourceBlocks-1)
                },
                nonInterleaved
                    NULL
            },
        -- Precoder granularity in frequency domain.
        -- Corresponds to L1 parameter 'CORESET-precoder-granularity' (see 38.211, sections 7.3.2.2 and 7.4.1.3.2)
        precoderGranularity
            ENUMERATED {sameAsREG-bundle, allContiguousRBs},
        -- A subset of the TCI states defined in TCI-States used for providing QCL relationships between the DL RS(s) in one RS Set
        -- (TCI-State) and the PDCCH DMRS ports. Corresponds to L1 parameter 'TCI-StatesPDCCH' (see 38.214, section FFS_Section)
        tci-StatesPDCCH
            SEQUENCE (SIZE (1..maxNrofTCI-StatesPDCCH)) OF TCI-StateId,
        -- If at least spatial QCL is configured/indicated, this field indicates if TCI field is present or not present in DL-related DCI.
        -- When the field is absent the UE considers the TCI to be absent/disabled.
        -- Corresponds to L1 parameter 'TCI-PresentInDCI' (see 38.213, section 5.1.5)
        tci-PresentInDCI
            ENUMERATED {enabled},
        -- PDCCH DMRS scrambling initialization. Corresponds to L1 parameter 'PDCCH-DMRS-Scrambling-ID' (see 38.214, section 5.1)
        -- When the field is absent the UE applies the value '0'.
        pdcch-DMRS-ScramblingID
            BIT STRING (SIZE (16))
    }

-- TAG-CONTROLRESOURCESET-STOP
-- ASN1STOP
```

OPTIONAL, -- Need R

-- Need S

OPTIONAL,

OPTIONAL, -- Need S

[図2]

PDCCHコンフィグ共通情報要素
(*PDCCH-ConfigCommon* information element)

```

-- ASN1START
-- TAG-PDCCH-CONFIGCOMMON-START
PDCCH-ConfigCommon ::=
    SEQUENCE {
        -- A list of additional common search spaces.
        commonSearchSpaces
            SEQUENCE (SIZE(1..3)) OF SearchSpace
            OPTIONAL, -- Need R

        -- A list of additional control set resources; One is for SIB1, Other System Information and
        -- paging. The other is for Random Access.
        controlResourceSets
            SEQUENCE (SIZE (1..2)) OF ControlResourceSet
            OPTIONAL,

        -- ID of the search space for SIB1 message.
        searchSpaceSIB1
            SearchSpaceId
            OPTIONAL, -- Need R

        -- Corresponds to L1 parameter 'rmsi-SearchSpace' (see 38.213, section 10)
        searchSpaceOtherSystemInformation
            SearchSpaceId
            OPTIONAL, -- Need R

        -- ID of the Search space for other system information, i.e., SIB2 and beyond.
        searchSpacePaging
            SearchSpaceId
            OPTIONAL, -- Need R

        -- Corresponds to L1 parameter 'osi-SearchSpace' (see 38.213, section 10)
        searchSpaceOtherSystemInformation
            SearchSpaceId
            OPTIONAL, -- Need R

        -- If the field is absent, the monitoring occasions are derived as described in 38.213, section 10.1 and section 13.
        searchSpaceOtherSystemInformation
            SearchSpaceId
            OPTIONAL, -- Need R

        -- ID of the Search space for paging. Corresponds to L1 parameter 'paging-SearchSpace' (see 38.213, section 10)
        searchSpacePaging
            SearchSpaceId
            OPTIONAL, -- Need R

        -- If the field is absent, the monitoring occasions are derived as described in 38.213, section 10.1 and section 13.
        searchSpacePaging
            SearchSpaceId
            OPTIONAL, -- Need R

        -- CORESET configured for random access. When the field is absent the UE uses the CORESET according to pdcchConfigSIB1pdcch-ConfigSIB1
        -- which is associated with ControlResourceSetId = 0.
        ra-ControlResourceSet
            ControlResourceSet
            OPTIONAL, -- Need S

        -- Corresponds to L1 parameter 'rach-coreset-configuration' (see 38.211?, section FFS_Section)
        ra-ControlResourceSet
            ControlResourceSet
            OPTIONAL, -- Need S

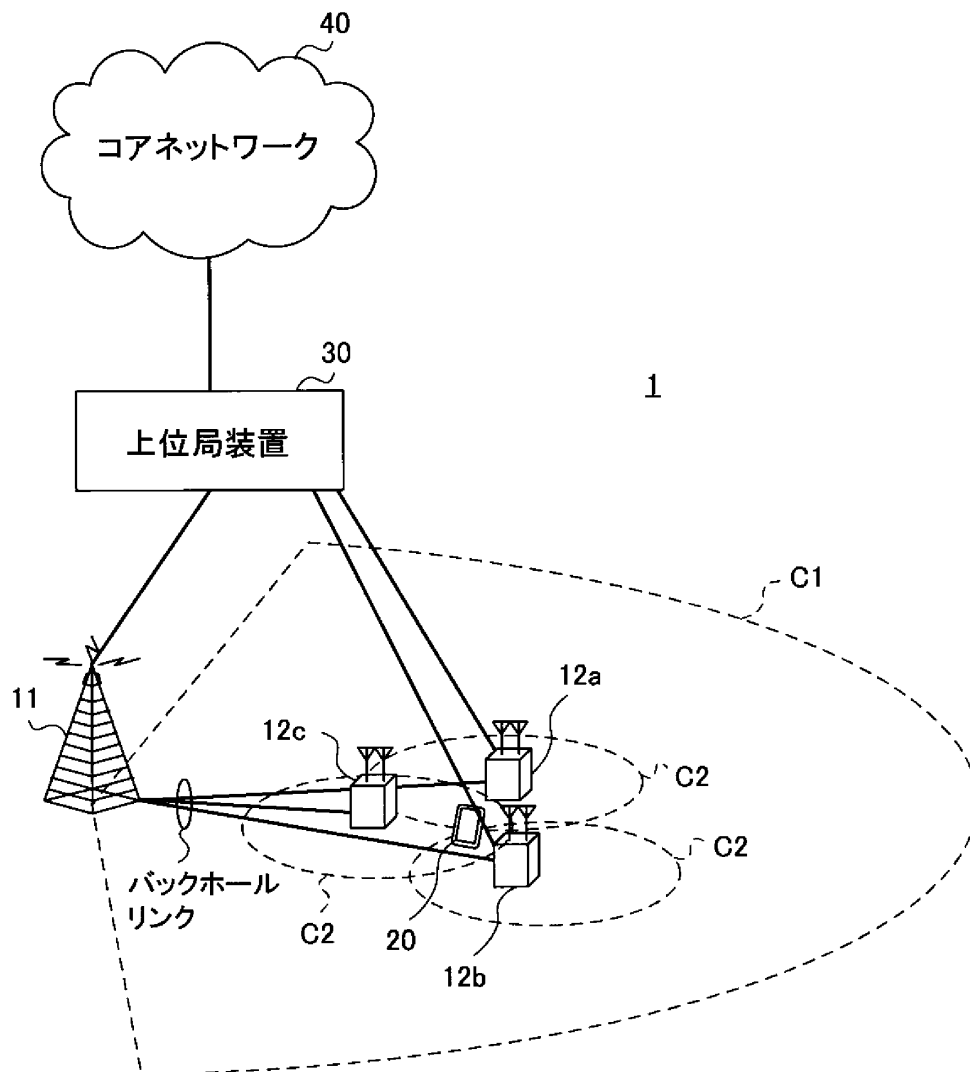
        -- ID of the Search space for random access procedure. Corresponds to L1 parameter 'ra-SearchSpace' (see 38.214?, section FFS_Section)
        ra-SearchSpace
            SearchSpaceId
            OPTIONAL, -- Need R

        -- If the field is absent, the monitoring occasions are derived as described in 38.213, section 10.1 and section 13.
        ra-SearchSpace
            SearchSpaceId
            OPTIONAL, -- Need R

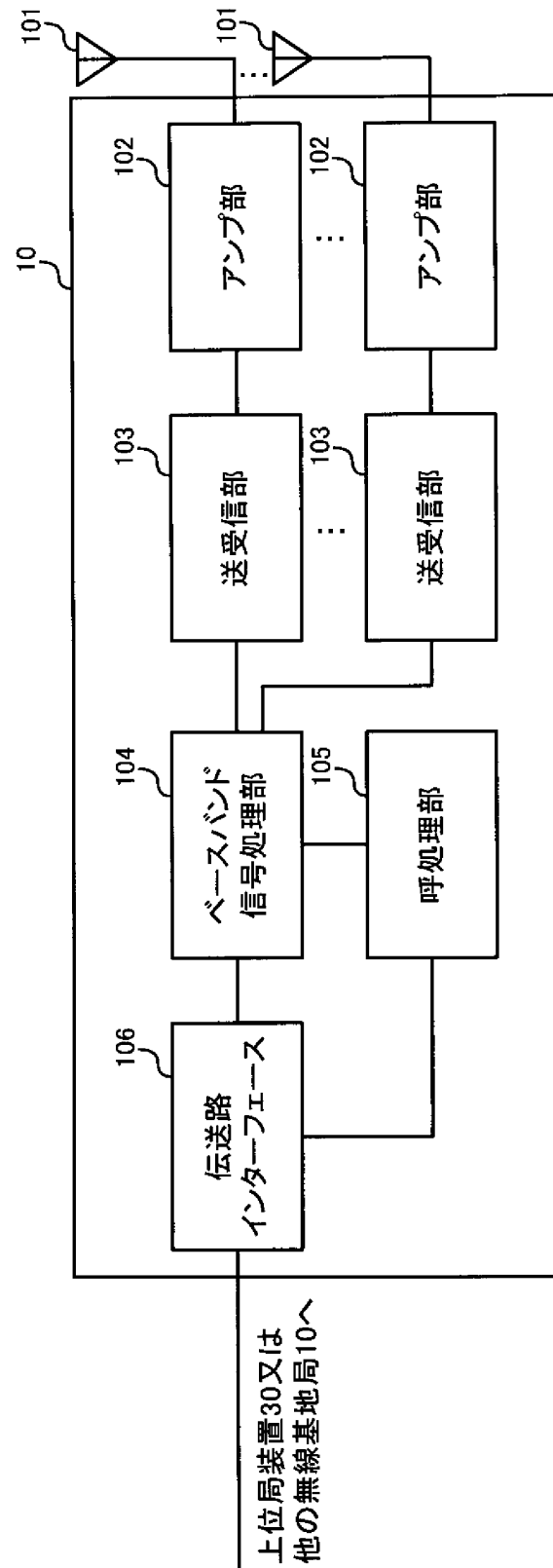
        ...
    }
-- TAG-PDCCH-CONFIGCOMMON-STOP
-- ASN1STOP

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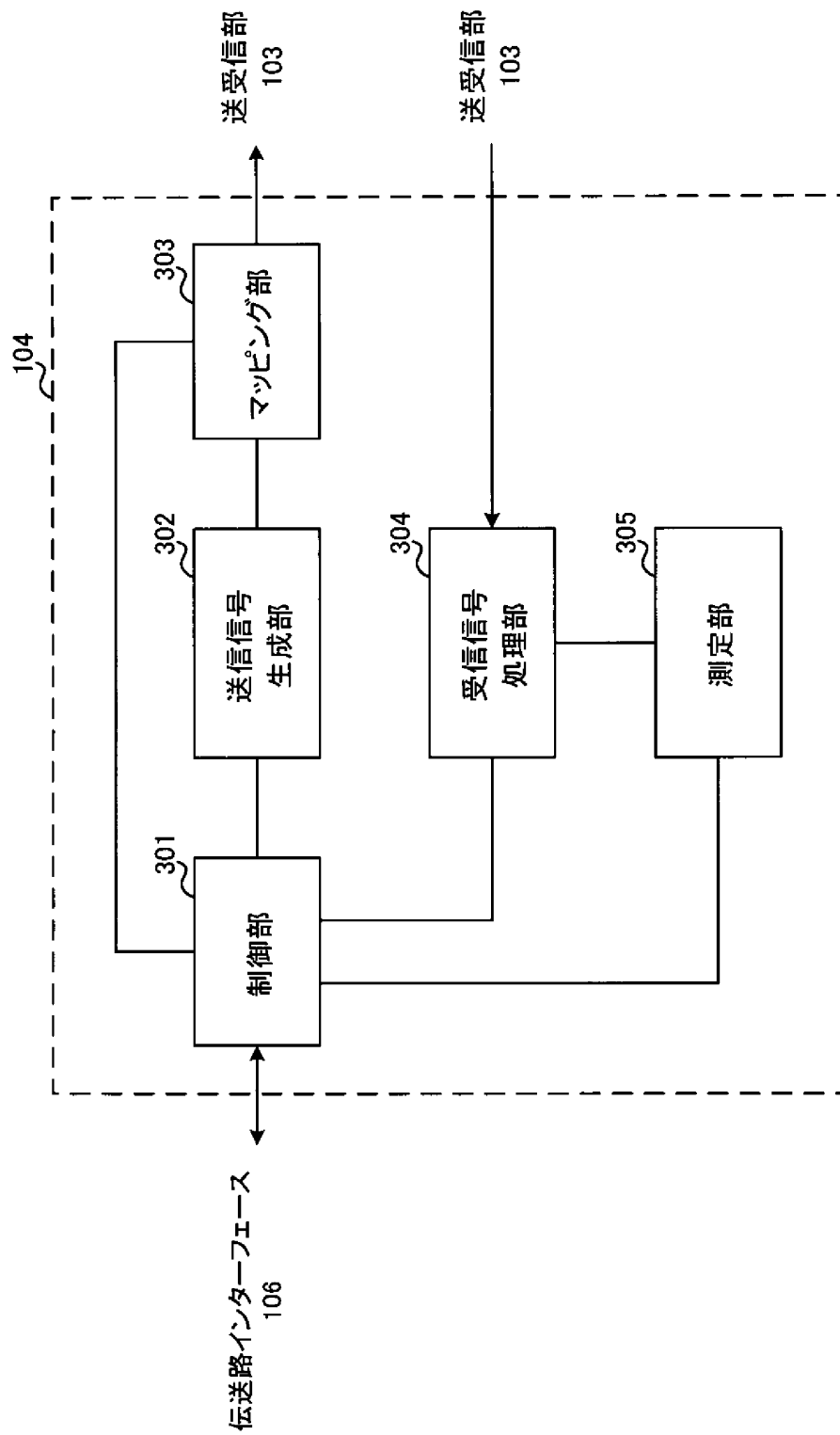
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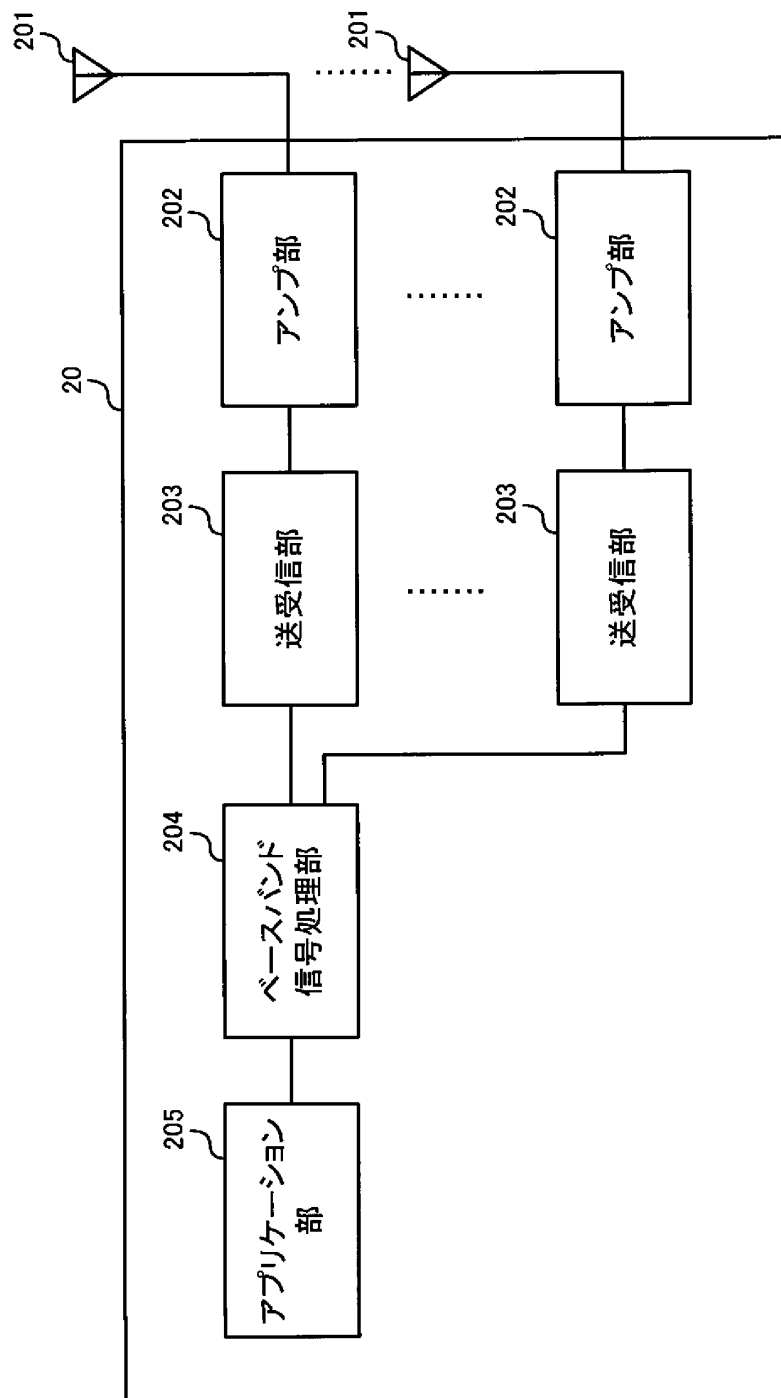
[図4]



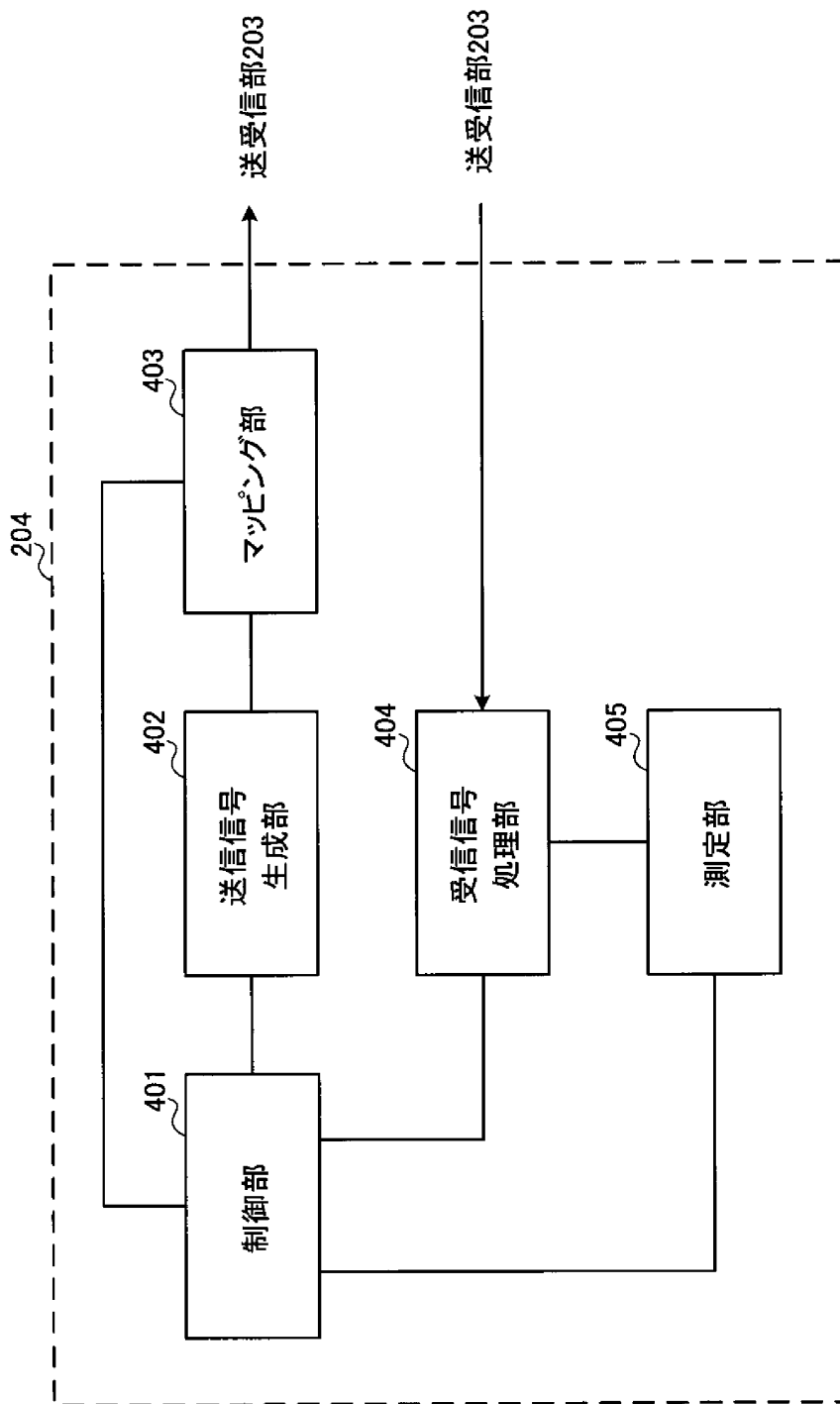
[図5]



[図6]



[図7]



[図8]

