

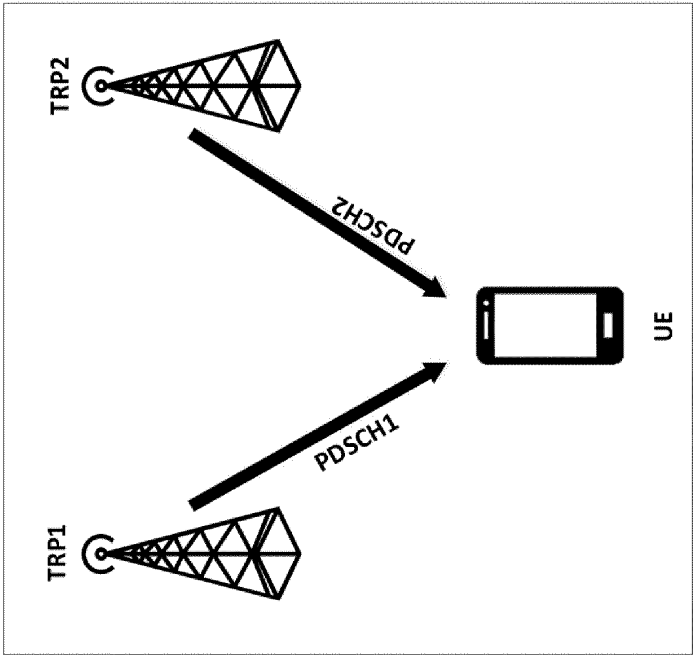


Fig. 2

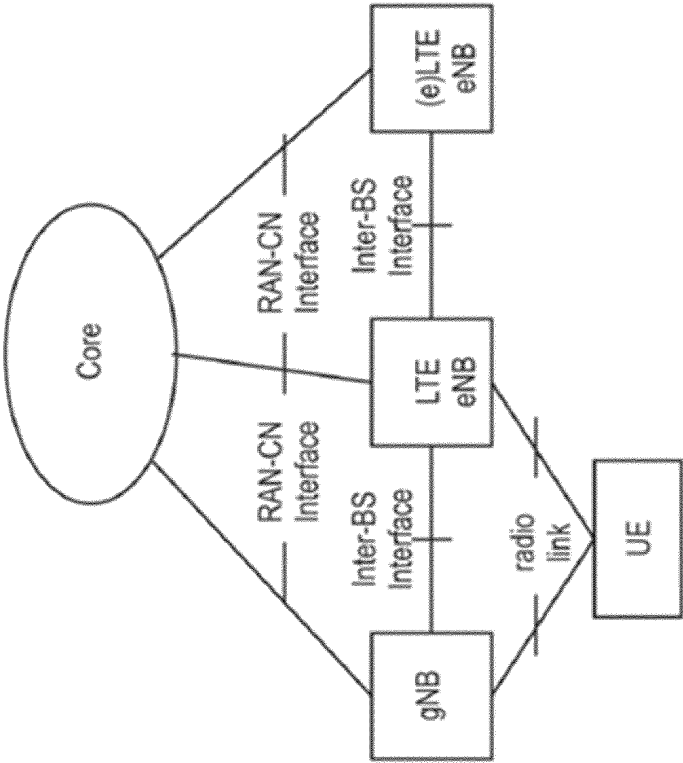


Fig. 1

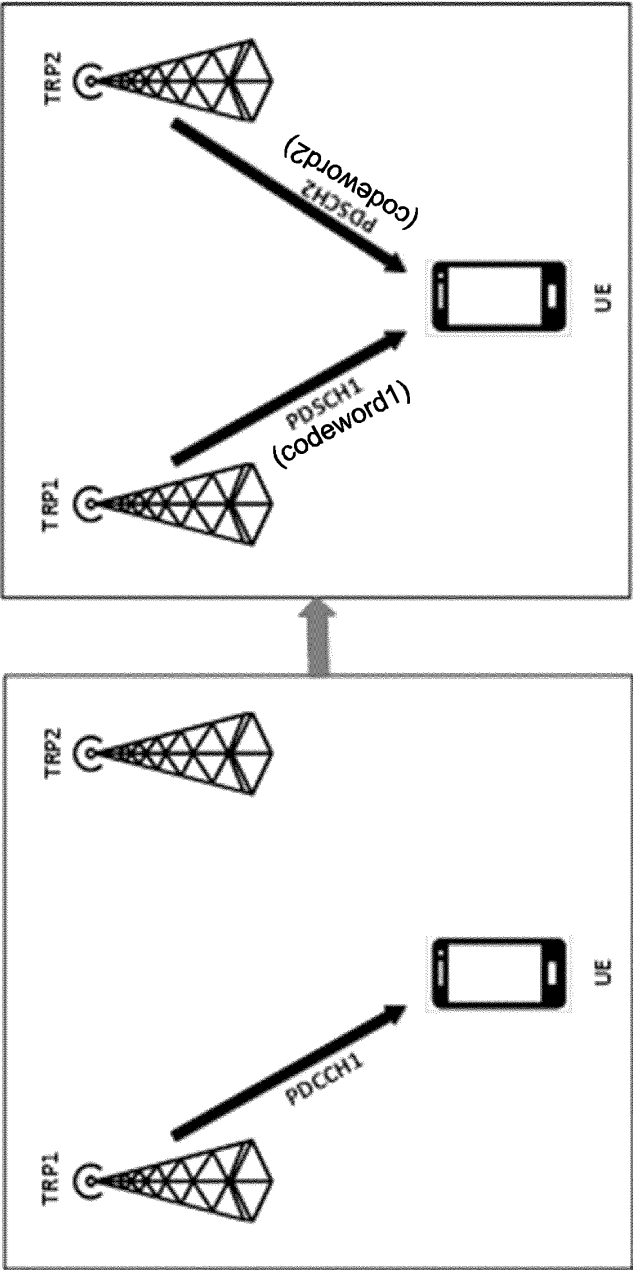


Fig. 3

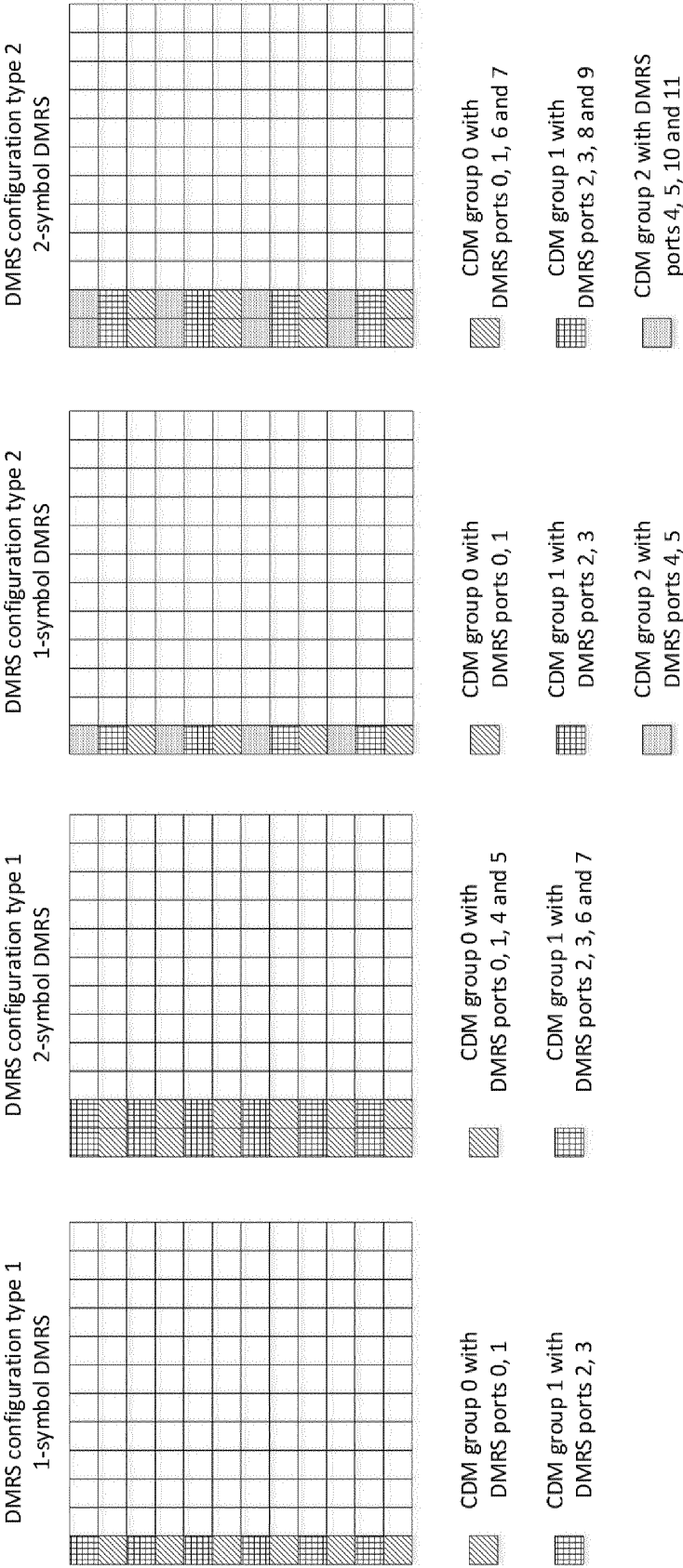


Fig. 4

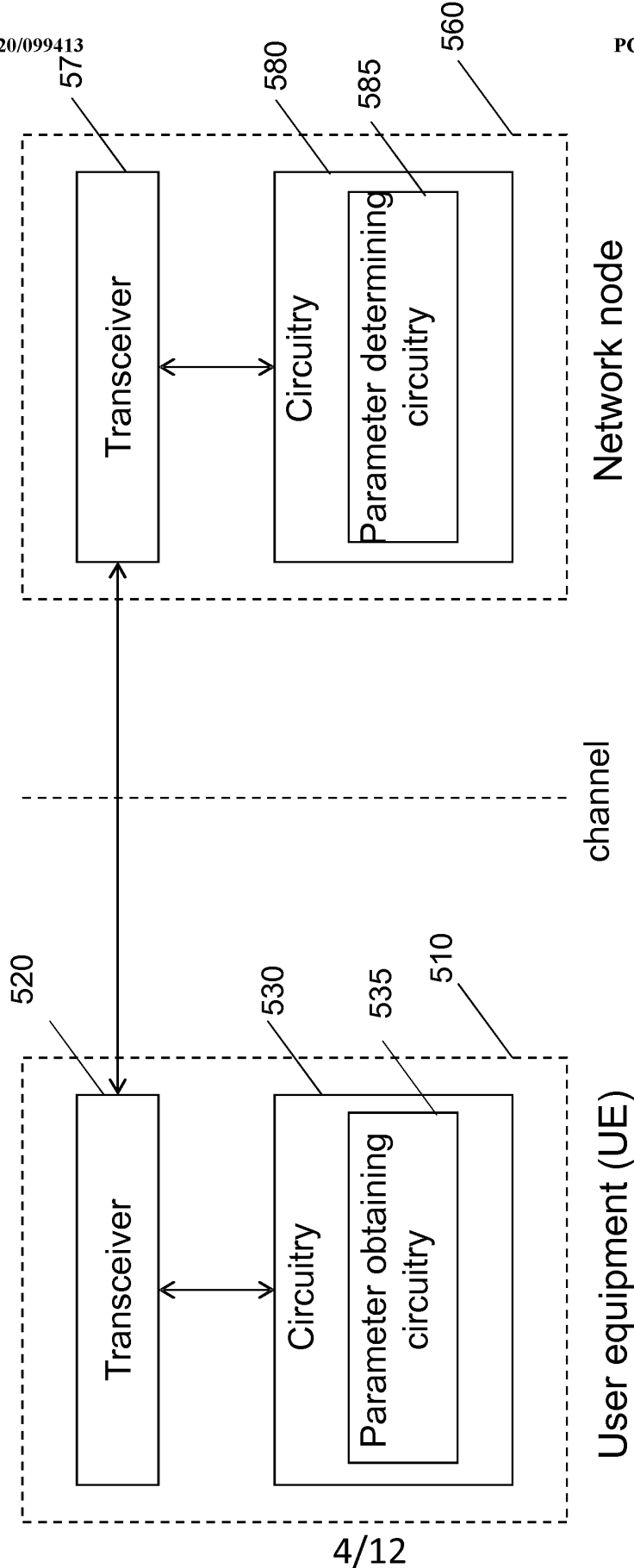


Fig. 5

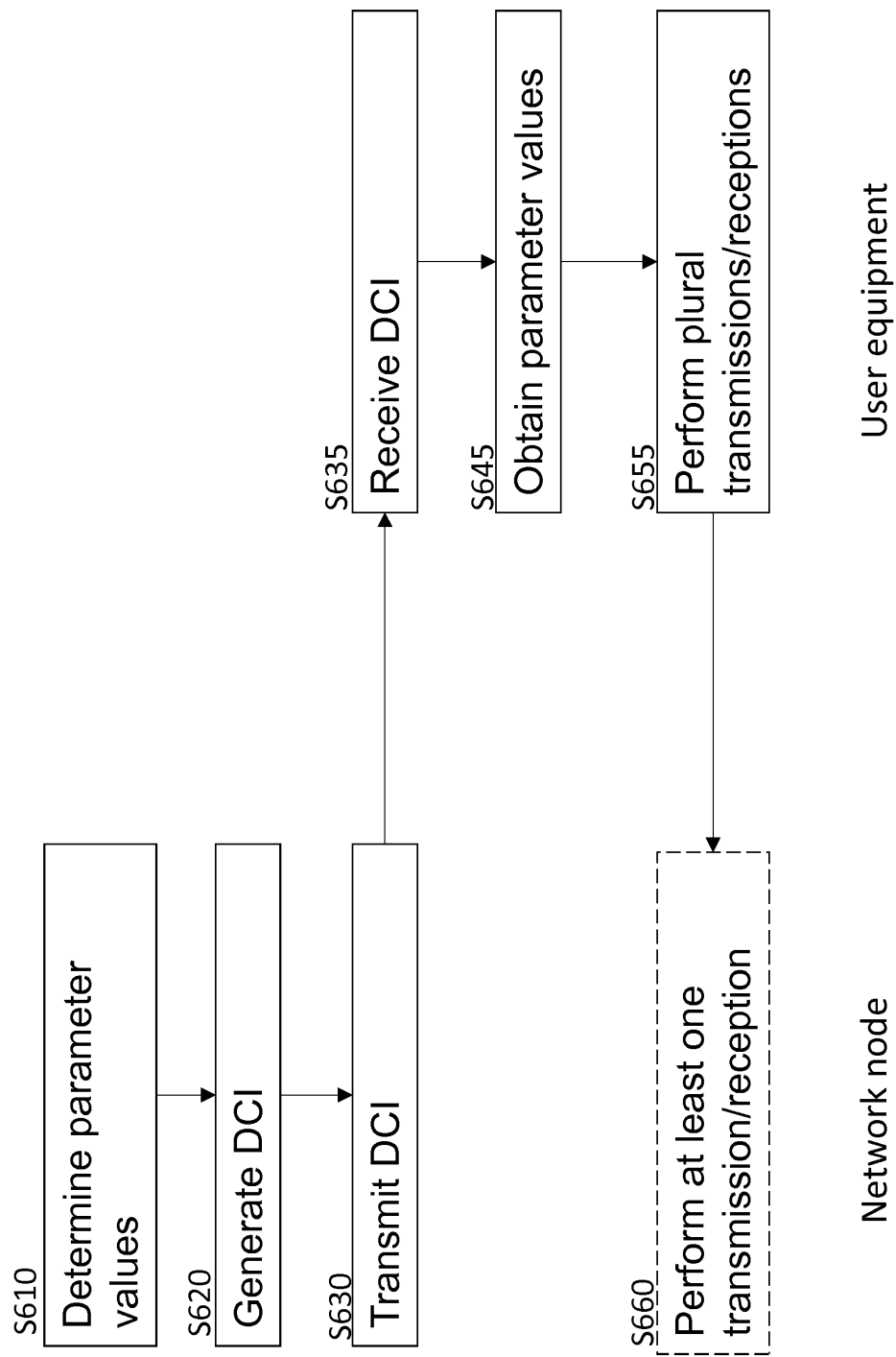


Fig. 6

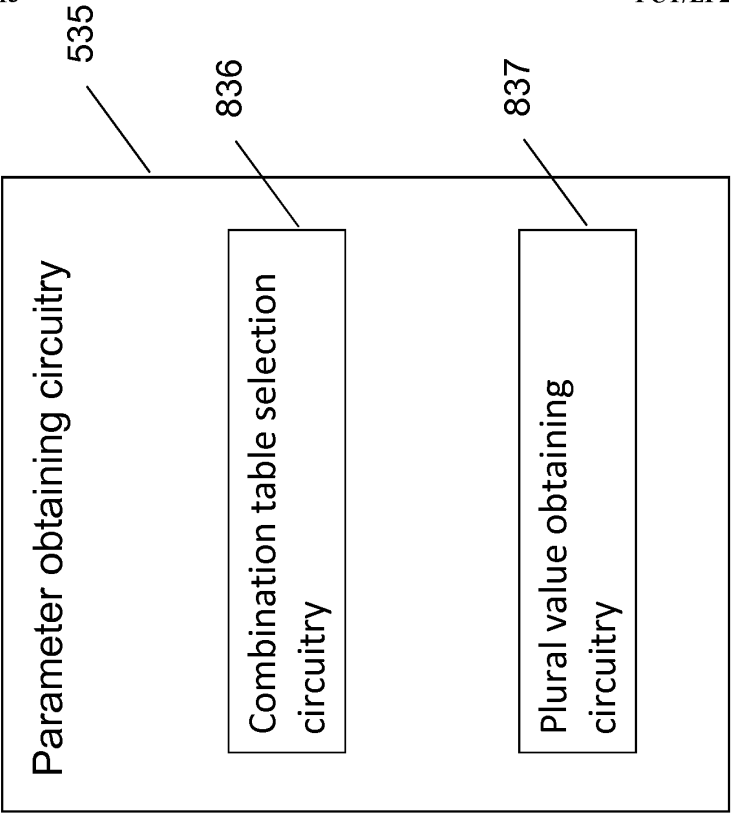


Fig. 7

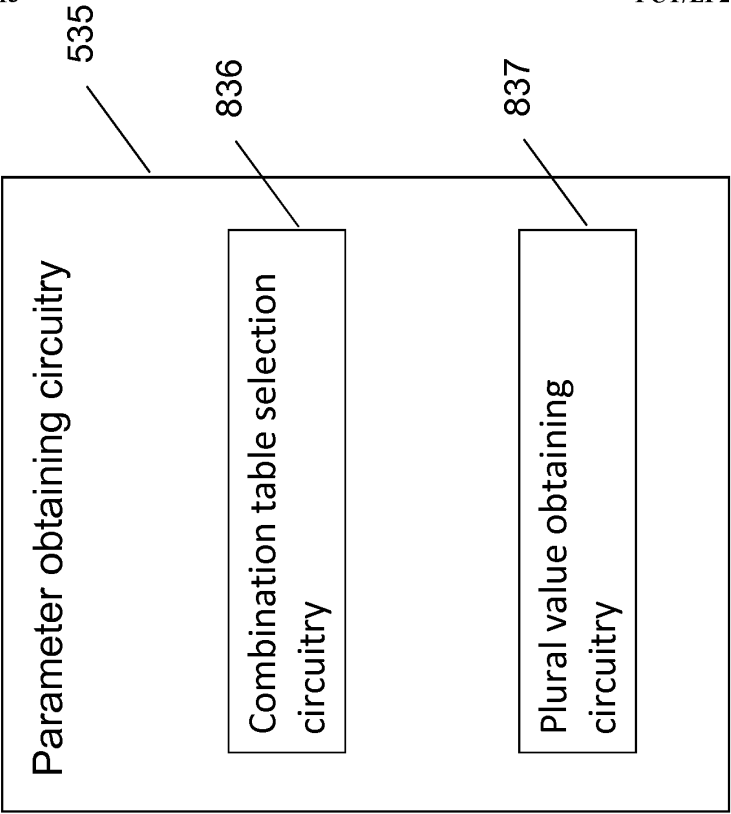


Fig. 8

```

-- ASN1START
-- TAG-PDSCH-CONFIG-START

PDSCH-Config ::=
    dataScramblingIdentityPDSCH          INTEGER (0..1023)
    dmrs-DownlinkForPDSCH-MappingTypeA  SetupRelease { DMRS-DownlinkConfig }
    dmrs-DownlinkForPDSCH-MappingTypeB  SetupRelease { DMRS-DownlinkConfig }

    tci-StatesToAddModList               SEQUENCE (SIZE(1..maxNrofTCI-States)) OF TCI-State
    -- Need N                            OPTIONAL,

    tci-StatesToReleaseList               SEQUENCE (SIZE(1..maxNrofTCI-States)) OF TCI-StateId
    -- Need N                            OPTIONAL,

    vrb-ToPRB-Interleaver                ENUMERATED {n2, n4}
    .....
    .....

    parameter_X_CombinedTableIndicesToAddModList SEQUENCE (SIZE(1..maxNrofparameter_X-Indices)) OF
    Parameter_X_CombinedTable                OPTIONAL, -- Need N

    zp-CSI-RS-ResourceToAddModList       SEQUENCE (SIZE (1..maxNrofZP-CSI-RS-Resources)) OF ZP-CSI-RS-Resource
    OPTIONAL, -- Need N
    .....
-- TAG-PDSCH-CONFIG-STOP
-- ASN1STOP

```

Fig. 9

```

-- ASN1START
-- TAG-PDSCH-CONFIG-START

PDSCH-Config ::=
    dataScramblingIdentityPDSCH          SEQUENCE {
        INTEGER (0..1023)
        dmrs-DownlinkForPDSCH-MappingTypeA  SetupRelease { DMRS-DownlinkConfig }
        Need M
        dmrs-DownlinkForPDSCH-MappingTypeB  SetupRelease { DMRS-DownlinkConfig }
        Need M

        tci-StatesToAddModList              SEQUENCE (SIZE(1..maxNrofTCI-States)) OF TCI-State
        -- Need N
        tci-StatesToReleaseList              SEQUENCE (SIZE(1..maxNrofTCI-States)) OF TCI-StateId
        Need N
        vrb-ToPRB-Interleaver                ENUMERATED {n2, n4}
        Need S
        .....
        .....
        DMRS-PortMultiTRP_CombinedTableIndicesToAddModList SEQUENCE (SIZE(1..maxNrofDMRS-PortMultiTRP-Indices)) OF
        DMRS-PortMultiTRP_CombinedTable
        OPTIONAL, -- Need N

        zp-CSI-RS-ResourceToAddModList      SEQUENCE (SIZE (1..maxNrofZP-CSI-RS-Resources)) OF ZP-CSI-RS-Resource
        OPTIONAL, -- Need N
        .....
        -- TAG-PDSCH-CONFIG-STOP
        -- ASN1STOP

```

Fig. 10

```

-- ASN1START
-- TAG-PDSCH-CONFIG-START

PDSCH-Config ::=
    dataScramblingIdentityPDSCH    INTEGER (0..1023)
    dmrs-DownlinkForPDSCH-MappingTypeA  SetupRelease { DMRS-DownlinkConfig }
    dmrs-DownlinkForPDSCH-MappingTypeB  SetupRelease { DMRS-DownlinkConfig }

    tci-StatesToAddModList
    -- Need N
    tci-StatesToReleaseList
    -- Need N
    vrb-ToPRB-Interleaver
    ENUMERATED {n2, n4}

    TCISStateMultiTRP_CombinedTableIndicesContentToAddModList
    SEQUENCE (SIZE (1..maxNrofTCISStateMultiTRP-Indices)) OF TCISStateMultiTRP_CombinedTable
    OPTIONAL, -- Need N

    zp-CSI-RS-ResourceToAddModList
    SEQUENCE (SIZE (1..maxNrofZP-CSI-RS-Resources)) OF ZP-CSI-RS-Resource
    OPTIONAL, -- Need N

-- TAG-PDSCH-CONFIG-STOP
-- ASN1STOP

```

Fig. 11

```

-- ASN1START
-- TAG-CONTROLRESOURCESET-START

ControlResourceSet ::=
    controlResourceSetId
        SEQUENCE {
            controlResourceSetId,
            frequencyDomainResources
                BIT STRING (SIZE (45)),
            duration
                INTEGER (1..maxCoReSetDuration),
            cce-REG-MappingType
                CHOICE {
                    interleaved
                        SEQUENCE {
                            reg-BundleSize
                                ENUMERATED {n2, n3, n6},
                            interleaverSize
                                ENUMERATED {n2, n3, n6},
                            shiftIndex
                                INTEGER (0..maxNrofPhysicalResourceBlocks-1)
                                OPTIONAL --
                                Need S
                        },
                    nonInterleaved
                        NULL
                },
            precoderGranularity
                ENUMERATED {sameAsREG-bundle, allContiguousRBs},
            tci-StatesPDCCCH-ToAddList
                SEQUENCE (SIZE (1..maxNrofTCI-StatesPDCCCH)) OF TCI-StateId
                -- Need N
                OPTIONAL, -- Need N
            tci-StatesPDCCCH-ToReleaseList
                SEQUENCE (SIZE (1..maxNrofTCI-StatesPDCCCH)) OF TCI-StateId
                OPTIONAL, -- Need S
            tci-PresentInDCI
                ENUMERATED {enabled}
                OPTIONAL, -- Need S
            pdccch-DMRS-ScramblingID
                INTEGER (0..65535)
                OPTIONAL, --
                Need S
            parameter_X-CombinedTableIndicationInDCI
                ENUMERATED {enabled}
                OPTIONAL, -- Need S
            ...
        }

```

Fig. 12

```

-- ASN1START
-- TAG-CONTROLRESOURCESET-START

ControlResourceSet ::=
    controlResourceSetId
        SEQUENCE {
            ControlResourceSetId,

            frequencyDomainResources
                BIT STRING (SIZE (45)),
            duration
                INTEGER (1..maxCoReSetDuration),
            cce-REG-MappingType
                CHOICE {
                    interleaved
                        SEQUENCE {
                            reg-BundleSize
                                ENUMERATED {n2, n3, n6},
                            interleaverSize
                                ENUMERATED {n2, n3, n6},
                            shiftIndex
                                INTEGER(0..maxNrofPhysicalResourceBlocks-1)
                        },
                    nonInterleaved
                        NULL
                },
            precoderGranularity
                ENUMERATED {sameAsREG-bundle, allContiguousRBs},
            tci-StatesPDCCH-ToAddList
                SEQUENCE(SIZE (1..maxNrofTCI-StatesPDCCH)) OF TCI-StateId
                OPTIONAL,
            -- Need N
            tci-StatesPDCCH-ToReleaseList
                SEQUENCE(SIZE (1..maxNrofTCI-StatesPDCCH)) OF TCI-StateId
                OPTIONAL,
            -- Need N
            tci-PresentInDCI
                ENUMERATED {enabled}
                OPTIONAL, -- Need S
            pdcch-DMRS-ScramblingID
                INTEGER (0..65535)
                OPTIONAL, -- Need S
            DMRSPortMultiTRP-CombinedTableIndicationInDCI
                ENUMERATED {enabled}
                OPTIONAL, -- Need S
            ...
        }

```

Fig. 13

```

-- ASN1START
-- TAG-CONTROLRESOURCESET-START

ControlResourceSet ::=
    controlResourceSetId

    frequencyDomainResources
        BIT STRING (SIZE (45)),
    duration
        INTEGER (1..maxCoReSetDuration),
    cce-REG-MappingType
        CHOICE {
            interleaved
                SEQUENCE {
                    reg-BundleSize
                        ENUMERATED {n2, n3, n6},
                    interleaveSize
                        ENUMERATED {n2, n3, n6},
                    shiftIndex
                        INTEGER(0..maxNrofPhysicalResourceBlocks-1)
                },
            nonInterleaved
                NULL
        },
    precoderGranularity
        ENUMERATED {sameAsREG-bundle, allContiguousRBs},
    tci-StatesPDCCCH-ToAddList
        SEQUENCE (SIZE (1..maxNrofTCI-StatesPDCCCH)) OF TCI-StateId
        -- Need N
    tci-StatesPDCCCH-ToReleaseList
        SEQUENCE (SIZE (1..maxNrofTCI-StatesPDCCCH)) OF TCI-StateId
        -- Need N
    tci-PresentInDCI
        ENUMERATED {enabled}
    pdccch-DMRS-ScramblingID
        INTEGER (0..65535)
}
-- TCISStateMultiTRP-CombinedTableIndicationInDCI
-- Need S
...

```

Fig. 14