**OmniAir Conformance Test Case List**

**TCI and AT Command Mapping for C-V2X**

|  |  |
| --- | --- |
| Document Mnemonics: | Omni-Conf-Comm-Mapping |
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# Revision History

|  |  |  |
| --- | --- | --- |
| V0.1.0 | 06/28/20 | Initial Draft |
|  |  |  |
|  |  |  |

# Scope

The scope of this document provides AT and TCI command mapping for the new TCI V3.

# Test Suite Structure (TSS)

## Structure for tests

The test suite is structured as a tree with the root. The tree is of rank 4 with the first rank is Root, second is Group, third is Sub-group and the fourth rank is the standard ISO conformance test categories. The Sub-Group (third rank) belongs to any Group member in the second rank.

## Test groups

The test suite has a total of four levels. The first level is the root. The second level separates the root into various functional areas. The third level is the sub-functional areas if necessary. The fourth level is the standard ISO conformance test categories.

### Root

The root identifies the protocol given in the relevant technical specification.

### Groups

This level contains message types.

### Sub-Groups

This level contains functional areas identified in Table 5‑1.

Table 5‑1: Functional areas

|  |  |
| --- | --- |
| **Functional areas** | **Description** |
| Send/Transmit | The IUT signs and transmits WSM, WSA or Message Type(s) |
| Receive | The IUT receive and verifies WSM, WSA or Message Type(s) |
| Change Certificate | The IUT changes the signing certificate for Message Type(s) |

### Categories

This level contains the standard ISO conformance test categories limited to the behavior valid event and behavior invalid event.

# Test Purposes (TP)

## Introduction

### TP definition conventions

A Test Purpose (TP) is a prose description of a well-defined objective of testing. Applying to conformance testing, it focuses on a single conformance requirement or a set of related conformance requirements from the base standards [i.1]. The TP definition is built according to EG 202 798 [i.1].

The TPs are defined by the rules shown in Table 6‑1.

Table 6‑1: TP definition rules

|  |  |
| --- | --- |
| Test Purpose ID | The Test Purpose ID is a unique identifier. It shall be specified according to the TP naming conventions defined in the clause below. |
| Test objective | Short description of test purpose objective according to the requirements from the base standard. |
| References | The reference indicates the sub-clauses of the reference standard specifications in which the conformance requirement is expressed. |
| Test Configuration | The Config Id references the test configuration selected for this TP. |
| PICS Selection | Reference to the PICS statement involved for selection of the TP. It may contain a Boolean expression. |
| Pre-Test Conditions | A list of test-specific pre-conditions that need to be met by the SUT including information about equipment configuration, i.e., precise description of the initial state of the SUT required to start executing the test sequence |
| Test Sequence | An ordered list of equipment operation and observations. In case of a conformance test description, the test sequence also contains the conformance checks as part of the observations |
| **Event Types** | |
| Stimulus | Corresponds to an event that enforces an IUT to proceed with a specific protocol action, like sending a message for instance. |
| Check | Ensures the receipt of protocol messages on reference points with valid content. |
| Verify | Consists of verifying that the IUT behaves according to the expected behavior (for instance the IUT behavior shows that it receives the expected message). |
| Configure | Corresponds to an action to modify the IUT configuration. |

When a conformance test has a sequencing requirement, these are described using a format in Table 3 derived from [i.1]

### TP Identifier naming conventions

The identifier of the TP is built according to Table 6‑2.

Table 6‑2:TP naming convention

| **Identifier** | **TP-<root>-<gr>-<sgr>-<x>-<nn> or TP-<root>-<gr>-<x>-<nn> when no <sgr>** |  |  |
| --- | --- | --- | --- |
|  | <root> = root | 1609# or J2945 | Like 1609.2 |
|  | <gr> = group | Function | Like BSM |
|  |  |  | Like MST or POP |
|  | <sgr> =sub- group | SEND | Send Message |
|  |  | RECV | Receive Message |
|  | <x> = type of testing | BV | Valid Behaviour tests |
|  |  | BI | Invalid Syntax or Behaviour Tests |
|  | <nn> = sequential number |  | 01 to 99 |

### Rules for the behavior description

The description of the TP is built according to EG 202 798 [i.1].

The base standards are not using finite state machine concept. As a consequence, the test purposes use a generic "Initial State" that corresponds to a state where the IUT is ready for starting the test execution. Furthermore, the IUT shall be left in this "Initial State," when the test is completed.

Being in the "Initial State" refers to the starting point of the initial device configuration. There are no pending actions, no instantiated buffers or variables, which could disturb the execution of a test.

# Supported Parameters

## TCI Commands

TCI messages shall support the following objects

* BW
* Tx Power
* EARFCN
* MCS
* PSCCH/PSSCH contiguous
* RB Size
* RB Count
* SPS
* Event
* PPPP
* Tx and Rx Packet Count
* Packet Size
* RSSI

## AT Command Wrappers

The TCI wrapper will support mandatory AT commands found in the 3GPP TS 27.007 V14 section 15. The commands are as follows:

* AT+CATM
* AT+CCUTLE
* AT+CUSPCREQ
* AT+CUTCR
* AT+CCBRREQ
* AT+CV2XDTS

# Test Case TCI Mapping

This section maps the TCI commands which shall correlate to the C-V2X test case

## 3GPP

* TP-PHY-MxPWR-SEND-BV-01 (6.2.2G)
  + **Summary:** UE Maximum Output Power
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
  + **Steps:**
    - Pass XML Config file or TCI Commands discretely to change parameters
    - Invoke At commands for test mode configuration and E
    - Activate Transmit and Receive
* TP-PHY-MPR-SEND-BV-01 (6.2.3G)
  + **Summary:** Maximum Power Reduction
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, PSCCH/PSSCH Contiguous, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-A-MPR-SEND-BV-01 (6.2.4G)
  + **Summary:** Additional Maximum Power Reduction
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-OPWR-SEND-BV-01 (6.2.5G)
  + **Summary:** Transmit Output Power
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-MNPWR-SEND-BV-01 (6.3.2G)
  + **Summary:** Minimum Output Power
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-OFFPWR-SEND-BV-01 (6.3.3G)
  + **Summary:** Additional Maximum Power Reduction
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, PSCCH/PSSCH Contiguous, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-TIMEMASK-SEND-BV-01 (6.3.4G)
  + **Summary:** Time Mask
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, PSCCH/PSSCH Contiguous, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-ABSPWRTOL-SEND-BV-01 (6.3.5G)
  + **Summary:** Absolute Power Tolerance
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-FREQERR-SEND-BV-01 (6.5.1G)
  + **Summary:** Frequency Error
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-EVM-SEND-BV-01 (6.5.2.1G)
  + **Summary:** Error Vector Magnitude
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-CARRLEAK-SEND-BV-01 (6.5.2.2G)
  + **Summary:** Carrier Leakage
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-INBNDEM-SEND-BV-01 (6.5.2.3G)
  + **Summary:** In-Band Emissions
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-EVMSPECFLAT-SEND-BV-01 (6.5.2.4G)
  + **Summary:** EVM Equalizer Spectrum Flatness
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-OCCBW-SEND-BV-01 (6.6.1G)
  + **Summary:** Occupied Bandwidth
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-ACLR-SEND-BV-01 (6.6.2.1G)
  + **Summary:** Spectrum Emissions Mask
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-SPRSEMM-SEND-BV-01 (6.6.3.1G)
  + **Summary:** Transmitter Spurious Emissions
  + **TCI Commands Needed:** N/A
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-TXINT-SEND-BV-01 (6.7G)
  + **Summary:** Transmit Intermodulation
  + **TCI Commands Needed:** BW, TxPower, EARFCN, MCS, RB Size, RB Count
  + **AT Wrapper Commands Needed:** NA as test mode, E not enabled
* TP-PHY-REFSENS-RECV-BV-01 (7.3G)
  + **Summary:** Reference Sensitivity
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** ATE0, ATQ0E0V1, AT+CATM=0, AT+CATM=1,1, AT+CCUTLE, AT+CUSPCREQ, ATV1, ATV0
  + **Steps:**
    - Pass XML Config file or TCI Commands discretely to change parameters
    - Invoke AT commands for test mode configuration and E
    - Activate Receive
    - Test System Transmit (single transmissions and notifications)
    - TCI and AT commands to continue transmission
* TP-PHY-MXINPLVL -RECV-BV-01 (7.4G)
  + **Summary:** Maximum Input Level
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** ATE0, ATQ0E0V1, AT+CATM=0, AT+CATM=1,1, AT+CCUTLE, AT+CUSPCREQ
* TP-PHY-FREQERR-RECV-BV-01 (7.5G)
  + **Summary:** Adjacent Channel Selectivity
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** N/A
* TP-PHY-IBB-RECV-BV-01 (7.6G)
  + **Summary:** In-Band Blocking
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** N/A
* TP-PHY-OBBB-RECV-BV-01 (7.6G)
  + **Summary:** Out-Of-Band-Band Blocking
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** N/A
* TP-PHY-SPRESP-RECV-BV-01 (7.7G)
  + **Summary:** Spurious Response
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** N/A
* TP-PHY-WBINT-RECV-BV-01 (7.8G)
  + **Summary:** Wide Band Intermodulation
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** N/A
* TP-PHY-SPUR-RECV-BV-01 (7.9G)
  + **Summary:** Spurious Emissions
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** N/A
* TP-PHY-SDLI-SEND-BV-01
  + **Summary:** Demodulation of PSSCH
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP-PHY-SDLI-SEND-BV-02
  + **Summary:** Demodulation of PSSCH
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-SDLI-SEND-BV-03
  + **Summary:** Power Imbalance with Two Links
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-SDLI-SEND-BV-04
  + **Summary:** PSSCH/PSSCH decoding Capability
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-SDLI-SEND-BV-05
  + **Summary:** PDCP SDU Transmission
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-SDLI-SEND-BV-06
  + **Summary:** UE in RRC\_IDLE
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-SDLI-SEND-BV-07
  + **Summary:** UE in RRC\_CONNECTED
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-SDLI-SEND-BV-08
  + **Summary:** UE Camped on E-UTRAN Cell
  + **TCI Commands Needed:** XXXXX
* TP- PHY-SDLI-SEND-BV-09 (24.1.2)
  + **Summary:** Pre-Configured Authorization (Transmission)
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** AT+CATM=1,1, AT+CCUTLE=0,1 , AT+CUTCR, AT+CCUTLE=1 , AT+CATM=0,1
* TP- PHY-SDLI-RECV-BV-10 (24.1.4)
  + **Summary:** Pre-Configured Authorization (Reception)
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** AT+CATM=1,1, AT+CCUTLE=0,0,1,1 “000000000000000010111011”, AT+CUSPCREQ, AT+CCUTLE=1, AT+CATM=0,1
* TP- PHY-SDLI-SEND-BV-11 (24.1.16)
  + **Summary:** Pre-Configured Authorization (CBR Measurement)
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** AT+CATM=1,1, AT+CCUTLE=0,1, AT+CUTCR, AT+CCUTLE=1, AT+CATM=0,1
* TP- PHY-SDLI-SEND-BV-13 (24.1.19)
  + **Summary:** Pre-Configured Authorization (CBR Measurement/Transmission)
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP-PHY-UU-SEND-BV-01
  + **Summary:** V2X Uplink Communication
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP PHY-UU-SEND-BV-02 (6.3.2)
  + **Summary:** Choose MCS, RB per payload size
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-UU-SEND-BV-03 (6.3.2)
  + **Summary:** 3GPP Parameters
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-UU-SEND-BV-04 (6.1.1.6 Note 2)
  + **Summary:** Conform to T2 Limits
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-UU-SEND-BV-05 (6.3.4)
  + **Summary:** Critical BSM
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-UU-SEND-BV-06 (6.5.1)
  + **Summary:** Demodulation of PSSCH
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX
* TP- PHY-UU-SEND-BV-07 (6.5.1)
  + **Summary:** Demodulation of PSSCH
  + **TCI Commands Needed:** XXXXX
  + **AT Wrapper Commands Needed:** XXXX

## IEEE 1609.2 (No TCI Changes from V2)

* TP-16092-SPDU-SEND-BV-01
* TP-16092-SPDU-SEND-BV-02
* TP-16092-SPDU-SEND-BV-03
* TP-16092-SPDU-SEND-BV04
* TP-16092-SPDU-SEND-BV-05
* TP-16092-SPDU-SEND-BV-06
* TP-16092-SPDU-RECV-BV-01
* TP-16092-SPDU-RECV-BV-02
* TP-16092-SPDU-RECV-BV-03
* TP-16092-SPDU-RECV-BV-04
* TP-16092-SPDU-RECV-BV-05
* TP-16092-SPDU-CERTCHG-BV-01
* TP-16092-SPDU-RECV-BI-01
* TP-16092-SPDU-RECV-BI-02
* TP-16092-EXPCERT-SEND-BV-01 (Optional)
* TP-16092-EXPCERT-SEND-BV-02 (Optional)
* TP-16092-EXPCERT-SEND-BV-03
* TP-16092-EXPCERT-RECV-BV-01 (Optional)
* TP-16092-EXPCERT-RECV-BV-02 (Optional)
* TP-16092-EXPCERT-RECV-BV-03
* TP-16092-SECPROF-RECV-BV-01 (Optional)

## IEEE 1609.3 (Input of XML Config File Needed)

* TP-16093-WSM-MST-BV-01
* TP-16093-WSM-MST-BV-01C
* TP-16093-WSM-MST-BV-02
* TP-16093-WSM-ROP-BV-01
* TP-16093-WSM-ROP-BV-02
* TP-16093-WSM-ROP-BV-03
* TP-16093-WSM-PP-BV-01
* TP-16093-WSM-PP-BV-02
* TP-16093-WSM-COM-BV-01
* TP-16093-WSM-COM-BV-02
* TP-16093-WSA-MST-BV-01
* TP-16093-WSA-MST-BV-02
* TP-16093-WSA-MST-BV-03
* TP-16093-WSA-MST-BV-04-X
* TP-16093-WSA-MST-BV-05-X
* TP-16093-WSA-MST-BV-06-X
* TP-16093-WSA-MST-BV-07-X
* TP-16093-WSA-MST-BV-08
* TP-16093-WSA-PP-BV-01
* TP-16093-WSA-PP-BV-02
* TP-16093-WSA-PP-BV-03
* TP-16093-WSA-PP-BV-04
* TP-16093-WSA-ROP-BV-01
* TP-16093-WSA-CHG-BV-01
* TP-16093-WSA-CHG-BV-02
* TP-16093-IP-CFG-BV-01
* TP-16093-IP-CFG-BV-02
* TP-16093-IP-CHG-BV-01
* TP-16093-IP-CHG-BV-02
* TP-16093-IP-COM-BV-01
* TP-16093-IP-COM-BV-02

## SAE J2945/1

* TP-J29451-BSM-ST-BV-01-X
* TP-J29451-BSM-ST-BV-02
* TP-J29451-BSM-ST-BV-03-X
* TP-J29451-BSM-ST-BV-04
* TP-BSM-ST-BV-05
* TP-BSM-ST-BV-06
* TP-BSM-ST-BV-07
* TP-BSM-ST-BV-08
* TP-BSM-ST-BV-09
* TP-BSM-ST-BV-10-X
* TP-BSM-ST-BV-11
* TP-BSM-ST-BV-12
* TP-BSM-ST-BV-13
* TP-BSM-ST-BV-14-V
* TP-BSM-ST-BV-15
* TP-BSM-ST-BV-16-V
* TP-BSM-ST-BV-17-X
* TP-BSM-MV-BV-01
* TP-BSM-ST-BV-18
* TP-BSM-MV-BV-02-V
* TP-BSM-MV-BV-03
* TP-BSM-MV-BV-04
* TP-BSM-MV-BV-05
* TP-BSM-MV-BV-06
* TP-BSM-MV-BV-07-X
* TP-BSM-MV-BV-08
* TP-BSM-MV-BV-09
* TP-BSM-MV-BV-10
* TP-BSM-MV-BV-11
* TP-BSM-MV-BV-12
* TP-BSM-MV-BV-13
* TP-BSM-MV-BV-14
* TP-BSM-ST-BI-19
* TP-BSM-ST-BV-20-V
* TP-BSM-ST-BV-21-V
* TP-BSM-ST-BV-22-V
* TP-BSM-ST-BV-23-V
* TP-BSM-ST-BV-24

## SAE J3161/1

* TP-31611-MUTE-Recv-BV-01
  + **Summary:** Muting
  + **TCI Commands Needed:** BW, EARFCN, MCS, RB Size, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-RESCSEL-Recv-BV-01
  + **Summary:** Resource Selection
  + **TCI Commands Needed:** BW, EARFCN, MCS, RB Size, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-MCSRB-Recv-BV-01
  + **Summary:** MCS and RB
  + **TCI Commands Needed:** BW, EARFCN, MCS, RB Size, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-SPEED-Recv-BV-01
  + **Summary:** Speed
  + **TCI Commands Needed:** BW, EARFCN, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-T2-Recv-BV-01
  + **Summary:** T2
  + **TCI Commands Needed:** BW, EARFCN, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-CritBSM-Recv-BV-01
  + **Summary:** Critical BSM
  + **TCI Commands Needed:** BW, EARFCN, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-L2ID-Recv-BV-01
  + **Summary:** L2-ID
  + **TCI Commands Needed:** BW, EARFCN, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-L2ID-Recv-BV-02
  + **Summary:** L2-ID
  + **TCI Commands Needed:** BW, EARFCN, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-SEGM-Recv-BV-01
  + **Summary:** Segmentation
  + **TCI Commands Needed:** BW, EARFCN, MCS, RB Size, SPS, Event, Packet Count, Packet Size, PPPP
  + **AT Wrapper Commands Needed:** N/A
* TP-31611-RECVSEN-Recv-BV-02
  + **Summary:** Receiver Sensitivity
  + **TCI Commands Needed:** BW, EARFCN
  + **AT Wrapper Commands Needed:** N/A

## RSU Testing (TBD)

# Appendix A

## Configuration A

value SL-V2X-Preconfiguration-r14 ::=   
{  
 v2x-PreconfigFreqList-r14   
 {  
 {  
 v2x-CommPreconfigGeneral-r14   
 {  
 rohc-Profiles-r12   
 {  
 profile0x0001-r12 FALSE,  
 profile0x0002-r12 FALSE,  
 profile0x0004-r12 FALSE,  
 profile0x0006-r12 FALSE,  
 profile0x0101-r12 FALSE,  
 profile0x0102-r12 FALSE,  
 profile0x0104-r12 FALSE  
 },  
 carrierFreq-r12 55140,  
 maxTxPower-r12 23,  
 additionalSpectrumEmission-r12 32,  
 sl-bandwidth-r12 n100,  
 tdd-ConfigSL-r12   
 {  
 subframeAssignmentSL-r12 none  
 },  
 reserved-r12 '00000000 00000000 000'B  
 },  
 v2x-CommRxPoolList-r14   
 {  
 {  
 sl-Subframe-r14 bs20-r14 : '11111111 11111111 1111'B,  
 adjacencyPSCCH-PSSCH-r14 TRUE,  
 sizeSubchannel-r14 n10,  
 numSubchannel-r14 n10,  
 startRB-Subchannel-r14 0,  
 dataTxParameters-r14 23,  
 syncAllowed-r14   
 {  
 gnss-Sync-r14 true  
 }  
 }  
 },  
 v2x-CommTxPoolList-r14   
 {  
 {  
 sl-Subframe-r14 bs20-r14 : '11111111 11111111 1111'B,  
 adjacencyPSCCH-PSSCH-r14 TRUE,  
 sizeSubchannel-r14 n10,  
 numSubchannel-r14 n10,  
 startRB-Subchannel-r14 0,  
 dataTxParameters-r14 23,  
 threshS-RSSI-CBR-r14 10,  
 cbr-pssch-TxConfigList-r14   
 {  
 {  
 priorityThreshold-r14 2,  
 defaultTxConfigIndex-r14 1,  
 cbr-ConfigIndex-r14 0,  
 tx-ConfigIndexList-r14   
 {  
 0,  
 1  
 }  
 },  
 {  
 priorityThreshold-r14 5,  
 defaultTxConfigIndex-r14 3,  
 cbr-ConfigIndex-r14 1,  
 tx-ConfigIndexList-r14   
 {  
 0,  
 2,  
 3,  
 4  
 }  
 }  
 },  
 syncAllowed-r14   
 {  
 gnss-Sync-r14 true  
 }  
 }  
 },  
 p2x-CommTxPoolList-r14   
 {  
 {  
 sl-Subframe-r14 bs10-r14 : '00000000 00'B,  
 adjacencyPSCCH-PSSCH-r14 FALSE,  
 sizeSubchannel-r14 n4,  
 numSubchannel-r14 n1,  
 startRB-Subchannel-r14 0,  
 dataTxParameters-r14 -126  
 }  
 },  
 v2x-ResourceSelectionConfig-r14   
 {  
 pssch-TxConfigList-r14   
 {  
 {  
 thresUE-Speed-r14 kmph120,  
 parametersAboveThres-r14   
 {  
 minMCS-PSSCH-r14 0,  
 maxMCS-PSSCH-r14 7,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 5,  
 allowedRetxNumberPSSCH-r14 n1  
 },  
 parametersBelowThres-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1  
 }  
 }  
 },  
 thresPSSCH-RSRP-List-r14   
 {  
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 },  
 restrictResourceReservationPeriod-r14   
 {  
 v1  
 },  
 probResourceKeep-r14 v0dot8,  
 sl-ReselectAfter-r14 n5  
 },  
 syncPriority-r14 gnss  
 }  
 },  
 cbr-PreconfigList-r14   
 {  
 cbr-RangeCommonConfigList-r14   
 {  
 {  
 65,  
 100  
 },  
 {  
 30,  
 65,  
 80,  
 100  
 }  
 },  
 sl-CBR-PSSCH-TxConfigList-r14   
 {  
 {  
 cr-Limit-r14 10000,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 200,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 300,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 60,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 30,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 }  
 }  
 }  
}

## Configuration B

value SL-V2X-Preconfiguration-r14 ::=   
{  
 v2x-PreconfigFreqList-r14   
 {  
 {  
 v2x-CommPreconfigGeneral-r14   
 {  
 rohc-Profiles-r12   
 {  
 profile0x0001-r12 FALSE,  
 profile0x0002-r12 FALSE,  
 profile0x0004-r12 FALSE,  
 profile0x0006-r12 FALSE,  
 profile0x0101-r12 FALSE,  
 profile0x0102-r12 FALSE,  
 profile0x0104-r12 FALSE  
 },  
 carrierFreq-r12 55140,  
 maxTxPower-r12 23,  
 additionalSpectrumEmission-r12 32,  
 sl-bandwidth-r12 n50,  
 tdd-ConfigSL-r12   
 {  
 subframeAssignmentSL-r12 none  
 },  
 reserved-r12 '00000000 00000000 000'B  
 },  
 v2x-CommRxPoolList-r14   
 {  
 {  
 sl-Subframe-r14 bs20-r14 : '11111111 11111111 1111'B,  
 adjacencyPSCCH-PSSCH-r14 TRUE,  
 sizeSubchannel-r14 n10,  
 numSubchannel-r14 n5,  
 startRB-Subchannel-r14 0,  
 dataTxParameters-r14 23,  
 syncAllowed-r14   
 {  
 gnss-Sync-r14 true  
 }  
 }  
 },  
 v2x-CommTxPoolList-r14   
 {  
 {  
 sl-Subframe-r14 bs20-r14 : '11111111 11111111 1111'B,  
 adjacencyPSCCH-PSSCH-r14 TRUE,  
 sizeSubchannel-r14 n10,  
 numSubchannel-r14 n5,  
 startRB-Subchannel-r14 0,  
 dataTxParameters-r14 23,  
 threshS-RSSI-CBR-r14 10,  
 cbr-pssch-TxConfigList-r14   
 {  
 {  
 priorityThreshold-r14 2,  
 defaultTxConfigIndex-r14 1,  
 cbr-ConfigIndex-r14 0,  
 tx-ConfigIndexList-r14   
 {  
 0,  
 1  
 }  
 },  
 {  
 priorityThreshold-r14 5,  
 defaultTxConfigIndex-r14 3,  
 cbr-ConfigIndex-r14 1,  
 tx-ConfigIndexList-r14   
 {  
 0,  
 2,  
 3,  
 4  
 }  
 }  
 },  
 syncAllowed-r14   
 {  
 gnss-Sync-r14 true  
 }  
 }  
 },  
 p2x-CommTxPoolList-r14   
 {  
 {  
 sl-Subframe-r14 bs10-r14 : '00000000 00'B,  
 adjacencyPSCCH-PSSCH-r14 FALSE,  
 sizeSubchannel-r14 n4,  
 numSubchannel-r14 n1,  
 startRB-Subchannel-r14 0,  
 dataTxParameters-r14 -126  
 }  
 },  
 v2x-ResourceSelectionConfig-r14   
 {  
 pssch-TxConfigList-r14   
 {  
 {  
 thresUE-Speed-r14 kmph120,  
 parametersAboveThres-r14   
 {  
 minMCS-PSSCH-r14 0,  
 maxMCS-PSSCH-r14 7,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 5,  
 allowedRetxNumberPSSCH-r14 n1  
 },  
 parametersBelowThres-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1  
 }  
 }  
 },  
 thresPSSCH-RSRP-List-r14   
 {  
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 },  
 restrictResourceReservationPeriod-r14   
 {  
 v1  
 },  
 probResourceKeep-r14 v0dot8,  
 sl-ReselectAfter-r14 n5  
 },  
 syncPriority-r14 gnss  
 }  
 },  
 cbr-PreconfigList-r14   
 {  
 cbr-RangeCommonConfigList-r14   
 {  
 {  
 65,  
 100  
 },  
 {  
 30,  
 65,  
 80,  
 100  
 }  
 },  
 sl-CBR-PSSCH-TxConfigList-r14   
 {  
 {  
 cr-Limit-r14 10000,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 200,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 300,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 60,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 },  
 {  
 cr-Limit-r14 30,  
 tx-Parameters-r14   
 {  
 minMCS-PSSCH-r14 5,  
 maxMCS-PSSCH-r14 11,  
 minSubChannel-NumberPSSCH-r14 1,  
 maxSubchannel-NumberPSSCH-r14 2,  
 allowedRetxNumberPSSCH-r14 n1,  
 maxTxPower-r14 txPower-r14 : 23  
 }  
 }  
 }  
 }  
}

◙ End of Document ◙