**3GPP TSG- Meeting # *rev1***

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | Stage 3 Add configuredMaxTxEIRP on NRSectorCarrier | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 3GPP TS 28.541 v.15.5.0 defines configuredMaxTxPower in NRSectorCarrier in the unit of milliwatts (mW) and leaves the value range out of scope. The TS 28.541 v.16.4.1 has not been updated accordingly.  Defining Tx power in mW may be applicable for radios that has a defined reference point at the antenna port. Integrated radios, using a different building practise, may need to be configured using the emitted isotropic radiated power, EIRP.  A radio can only be configured using either Tx power at a reference point or using the emitted RF power. | | | | | | | | |
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| ***Summary of change:*** | | Addition of attribute configuredMaxTxEIRP on NRSectorCarrier.  Updated definition of and constraint on configuredMaxTxPower | | | | | | | | |
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| ***Consequences if not approved:*** | | Not clear what reference point is used to when configuring radio transmission power. | | | | | | | | |
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| ***Clauses affected:*** | | E.5.25 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This is the stage 3 YANG solution for CR-0315 originally in S5-203283.  Checked locally with pyang –strict  Not present in Forge. | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st modified section** |

## E.5.25 module \_3gpp-nr-nrm-nrsectorcarrier.yang

module \_3gpp-nr-nrm-nrsectorcarrier {

yang-version 1.1;

namespace "urn:3gpp:sa5:\_3gpp-nr-nrm-nrnetwork-nrsectorcarrier";

prefix "nrsectcarr3gpp";

import \_3gpp-common-yang-types { prefix types3gpp; }

import \_3gpp-common-managed-function { prefix mf3gpp; }

import \_3gpp-common-managed-element { prefix me3gpp; }

import \_3gpp-nr-nrm-gnbdufunction { prefix gnbdu3gpp; }

import \_3gpp-common-top { prefix top3gpp; }

organization "3GPP SA5";

contact "https://www.3gpp.org/DynaReport/TSG-WG--S5--officials.htm?Itemid=464";

description "Defines the YANG mapping of the NRSectorCarrier Information

Object Class (IOC) that is part of the NR Network Resource Model (NRM).";

reference "3GPP TS 28.541 5G Network Resource Model (NRM)";

revision 2020-05-28 { reference CR-0316 ; }

revision 2019-10-28 { reference S5-193518 ; }

revision 2019-06-17 {

description "Initial revision";

}

grouping NRSectorCarrierGrp {

description "Represents the NRSectorCarrier IOC.";

reference "3GPP TS 28.541";

uses mf3gpp:ManagedFunctionGrp;

leaf txDirection {

description "Indicates if the transmission direction is downlink,

uplink, or both downlink and uplink.";

mandatory true;

type types3gpp:TxDirection;

}

leaf configuredMaxTxPower {

description "Maximum transmisssion power at the antenna port for all

downlink channels, used simultaneously in a cell, added together.

Condition: The sector-carrier has a downlink and the

configuration of Tx power at antenna port reference point is supported.";

mandatory true;

type int32;

units mW;

}

leaf configuredMaxTxEIRP {

type int64;

units dBm;

mandatory true;

description "The maximum emitted isotroptic radiated power (EIRP) in dBm

for all downlink channels, used simultaneously in a cell, added together.

Condition: the sector-carrier has a downlink and the

configuration of emitted isotropic radiated power is supported";

}

leaf arfcnDL {

description "NR Absolute Radio Frequency Channel Number (NR-ARFCN)

for downlink.

Condition: The sector-carrier has a downlink AND the value

differs from the referring cell's value of arfcnDL.";

reference "3GPP TS 38.104";

mandatory true;

type int32 { range "0..3279165"; }

}

leaf arfcnUL {

description "NR Absolute Radio Frequency Channel Number (NR-ARFCN)

for uplink.

Condition: The sector-carrier has an uplink AND the value

differs from the referring cell's value of arfcnUL.";

reference "3GPP TS 38.104";

mandatory true;

type int32 { range "0..3279165"; }

}

leaf bSChannelBwDL {

description "Base station channel bandwitdth for downlink.

Condition: The sector-carrier has a downlink AND the value

differs from the referring cell's value of bSChannelBwDL.";

reference "3GPP TS 38.104";

mandatory true;

type int32 { range "5 | 10 | 15 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |

90 | 100"; }

units MHz;

}

leaf bSChannelBwUL {

description "Base station channel bandwitdth for uplink.

Condition: The sector-carrier has an uplink AND the value differs

from the referring cell's value of bSChannelBwUL.";

reference "3GPP TS 38.104";

mandatory true;

type int32 { range "5 | 10 | 15 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |

90 | 100"; }

units MHz;

}

leaf sectorEquipmentFunctionRef {

description "Reference to corresponding SectorEquipmentFunction

instance.";

reference "3GPP TS 23.622";

mandatory true;

type types3gpp:DistinguishedName;

}

}

augment "/me3gpp:ManagedElement/gnbdu3gpp:GNBDUFunction" {

list NRSectorCarrier {

description "Represents the resources of each transmission point

included in the cell.";

reference "3GPP TS 28.541";

key id;

uses top3gpp:Top\_Grp;

container attributes {

uses NRSectorCarrierGrp;

}

uses mf3gpp:ManagedFunctionContainedClasses;

}

}

}

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| **End of modified section** |