

# Act No. 3151, of June 12, 2020

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**Note** : This text does not replace the one published in the Electronic Service Bulletin on 12/6/2020

**THE SUPERINTENDENT OF GRANT AND RESOURCES TO PROVISION - ANATEL** , in the use of the powers conferred on him by Resolution No. 715, of October 23, 2019 , and

WHEREAS the competence given by Items XIII and XIV of art. 19 of Law No. 9,472 / 97 - General Telecommunications Law;

WHEREAS the Technical Requirements establish the parameters and technical criteria verified in the Conformity Assessment of one or more types of telecommunications product, pursuant to art. 22 of the Regulations for Conformity Assessment and Homologation of Telecommunications Products, approved by Resolution No. 715, of October 23, 2019;

CONSIDERING the need to publish minimum requirements for quality, safety, interoperability and protection of the radio spectrum applied to devices to be inserted into the country's fifth generation mobile networks (5G), considered essential to meet the growing demand for increasing the capacity of mobile networks, with high data transmission rates and low latency, for emerging applications such as: industry 4.0, intelligent transport systems (ITS) and smart cities; and

CONSIDERING the case file of case number 53500.005609 / 2020-52 .

## **RESOLVES:**

Art. 1 To approve the updating of the technical requirements for assessing the conformity of the Access Terminal Station in the form of the Annex to this Act.

Art. 2 This Act enters into force on the date of its publication in Anatel's Electronic Service Bulletin.

VINICIUS OLIVEIRA CARAM GUIMARÃES

Superintendent of Granting and Provision of Resources

APPENDIX TO ACT No. 3151, OF JUNE 12, 2020

## **TECHNICAL REQUIREMENTS FOR ASSESSMENT OF COMPLIANCE OF ACCESS TERMINAL STATION**

### 1. OBJECTIVE

1.1. Establish minimum technical requirements for conformity assessment with the National Terminal Telecommunications Agency of Access Terminal Station - ETA.

### 2. NORMATIVE REFERENCES

2.1. Act No. 1120, of February 19, 2018 , which approves the Technical Requirements for Electromagnetic Compatibility for the Conformity Assessment of Telecommunications Products.

2.2. Act No. 950, of February 8, 2018 , which approves the Technical Requirements for Electrical Safety for Conformity Assessment of Telecommunications Products.

- 2.3. Act No. 946, of February 8, 2018 , which approves the Technical Requirements for Conformity Assessment of Digital Transmitters and Transceivers for Fixed Service in Point-Multipoint Applications in Frequency Bands Below 1 GHz.
- 2.4. Act No. 934, of February 8, 2018 , which approves the Technical Requirements for Conformity Assessment of Digital Transmitters and Transceivers for Fixed Service in Point-Multipoint Applications in Frequency Bands above 1 GHz.
- 2.5. Resolution n° 700, of September 28, 2018 , which approves the Regulation on the Evaluation of Human Exposure to Electric, Magnetic and Electromagnetic Fields Associated with the Operation of Radiocommunication Transmitting Stations.
- 2.6. Resolution 146, of July 16, 1999 , which approves the Regulation for certification of fixed wireless access systems for the provision of STFC.
- 2.7. ETSI - EN 300733 - *Satellite Personal Communications Networks (S-PCN); Mobile Earth Stations (MES), including handheld earth stations, for S-PCN in the 1.6 / 2.4 GHz bands, providing voice and / or data communications under the Mobile Satellite Service (MSS)* .
- 2.8. ETSI - EN 300734 - *Satellite Personal Communications Networks (S-PCN); Mobile Earth Stations (MES), including handheld earth stations, for S-PCN in the 2 GHz bands, providing voice and / or data communications under the Mobile Satellite Service (MSS)*.
- 2.9. ETSI - ETS 300 254 - *Satellite Earth Stations and Systems (SES); Land Mobile Earth Stations (LMESs) operating in the 1.5 / 1.6 GHz bands providing Low Bit Rate Data Communications (LBRDCs)* .
- 2.10. ETSI - ETS 300 423 - *Satellite Earth Stations and Systems (SES); Land Mobile Earth Stations (LMESs) operating in the 1.5 / 1.6GHz bands providing voice and / or data communications*.
- 2.11. TIA / EIA-98-C - *Recommended Minimum Performance Standards for Dual-Mode Spread Spectrum Mobile Stations* .
- 2.12. TIA / EIA / IS-137-A - *TDMA Cellular / PCS - Radio Interface - Minimum Performance Standard for Mobile Stations* .
- 2.13. 3GPP TS 51.010-1 V6.5.0 (2005-11) - *3rd Generation Partnership Project; Technical Specification Group GSM / EDGE Radio Access Network Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (Release 6)*.
- 2.14. 3GPP2 C.S0011-A: *Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations* .
- 2.15. ETSI TS 134 121-1 V9.1.0 (2010-07) - *Universal Mobile Telecommunications System (UMTS); User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 1: Conformance specification (3GPP TS 34.121-1 version 9.0.0 Release 9)* .
- 2.16. ETSI TS 134 121-1 V9.4.0 (2011-03) - *Universal Mobile Telecommunications System (UMTS); User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 1: Conformance specification (3GPP TS 34.121-1 version 9.4.0 Release 9)*.
- 2.17. 3GPP TS 36.521-1 V9.5.0 (2011-06) - *3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception Part 1: Conformance Testing; (Release 9)* .
- 2.18. ETSI TS 136 521-1 V14.4.0 (2017-11) - *LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing (3GPP TS 36.521-1 version 14.4.0 Release 14)* .
- 2.19. ETSI TS 136 521-1 V14.4.0 (2017-11) - *LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing (3GPP TS 36.521-1 version 14.4.0 Release 14)* .
- 2.20. ETS 300086 - *Radio Equipment and Systems; Land mobile served; Technical characteristics and test conditions for radio equipment with an internal or external RF connector intended primarily for analogue speech* .
- 2.21. 3GPP TS 38.521-1 V16.2.0 (2019-12) - *3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone; (Release 16)* .

2.22. 3GPP TS 38.521-3 V16.2.0 (2019-12) - *3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios (Release 16)*.

### 3. DEFINITIONS

3.1. The definitions contained in the normative references listed in the previous item apply.

### 4. GENERAL REQUIREMENTS

4.1. The requirements established in this document cover the minimum mandatory characteristics to be observed in the process of assessing the conformity of Terminal Access Stations - ETA for the purpose of approval by the National Telecommunications Agency.

4.2. Those interested in approval shall observe, in addition to the minimum requirements established by the Agency, standards, norms and criteria for the correct operation of the product in the networks of telecommunications providers in Brazil, as well as those established by other competent institutions.

4.3. The requirements established in this document are complemented by those contained in the current regulation on channeling and conditions of use of the radio spectrum and the Plan for the Assignment, Destination and Distribution of Frequency Bands in Brazil, in the frequency bands of operation of the equipment.

4.3.1. The equipment under conformity assessment must meet the limits of power, spurious emissions, emissions outside the range, the authorized frequency bands and other conditions contained in the respective regulations in force on channeling and conditions of use of the spectrum, even if the normative references point to different limits.

### 5. REQUIREMENTS APPLICABLE TO ALL TECHNOLOGIES

5.1. Meet, where applicable, the Technical Requirements for Electromagnetic Compatibility for the Conformity Assessment of Telecommunications Products.

5.2. Meet, wherever applicable, the Technical Requirements for Electrical Safety for Conformity Assessment of Telecommunications Products.

5.3. Meet the following items of the Regulation on the Evaluation of Human Exposure to Electric, Magnetic and Electromagnetic Fields Associated with the Operation of Radiocommunication Transmitting Stations:

a) Title II - Chapter I - Art. 4, § 1, applying the test procedures defined in Title II - Chapter III (On the Evaluation Procedures of Portable Terminal Stations).

### 6. REQUIREMENTS APPLICABLE TO SATELLITE GLOBAL MOBILE SERVICE EQUIPMENT - SMGS

6.1. Normative references:

a) ETSI - EN 300733.

b) ETSI - EN 300734.

6.2. Requirements:

6.2.1. Compliance with the following items of the ETSI standard - EN 300733:

a) 5 - Unwanted emissions outside the band.

b) 6 - Unwanted broadcasts within the band.

c) 7 - EIRP density (equivalent power radiated by an isotropic source) within the operational band.

d) 8 - Unwanted emission with transmitter at rest.

6.2.2. Present compliance with the following items of the ETSI standard - EN 300734:

a) 5 - Unwanted emissions outside the band.

b) 6 - Unwanted broadcasts within the band.

c) 7 - Unwanted emission with transmitter at rest.

6.2.3. Compliance with the following items of the ETSI - ETS 300 254 standard:

a) 4.2.1 - Unwanted emissions outside the 1626.5 - 1645.5 MHz and 1656.5 - 1660.5 MHz bands.

b) 4.2.2 - Maximum unwanted emissions within the 1626.5 - 1645.5 MHz and 1656.5 - 1660.5 MHz bands.

c) 4.2.4 - Protection of the radio astronomy service against LMES operating in the 1660.0 - 1660.5 MHz bands.

6.2.4. Compliance with the following items of the ETSI - ETS 300 423 standard:

a) 6.1 - Unwanted emission outside the bands of 1631.5 to 1634.5 MHz and 1656.5 to 1660.5 MHz.

b) 6.2 - Maximum unwanted emission within the bands of 1631.5 to 1634.5 MHz and 1656.5 to 1660.5 MHz.

c) 6.3 - Maximum EIRP emission density in the nominal band.

d) 6.5 - Protection of the radio astronomy service against emissions produced by LMES operating in the 1660.0 to 1660.5 MHz band.

6.3. Test procedures:

a) The test procedures are found in the normative references.

## 7. REQUIREMENTS APPLICABLE TO MOBILE SERVICES EQUIPMENT IN POINT-MULTIPONT APPLICATIONS

7.1. Normative references:

a) Technical requirements for conformity assessment of digital transmitters and transceivers for fixed service in point-multipoint applications in frequency bands below 1 GHz.

b) Technical requirements for conformity assessment of digital transmitters and transceivers for fixed service in point-multipoint applications in the frequency bands above 1 GHz.

7.2. Requirements:

a) Present compliance, in full, with the normative references.

7.3. Test procedures:

a) The test procedures are found in the normative references.

## 8. REQUIREMENTS APPLICABLE TO FIXED FIXED TELEPHONY SERVICE EQUIPMENT - STFC (WITH WIRELESS ACCESS)

8.1. Normative references:

a) Regulation for certification of fixed wireless access systems for the provision of STFC.

b) ETS 300086.

8.2. Requirements:

8.2.1. Compliance with the following items of the Regulation for certification of fixed wireless access systems for the provision of STFC:

a) Art. 15. Spurious emission outside the transmission range.

b) Art. 16. Spurious issue.

c) Art. 17. Spurious issue.

d) Art. 18. Immunity of the recipient.

8.3. Test procedures:

a) The test procedures are found in the normative references.

b) For the recipient's immunity test, the limited search method specified by ETSI, ETS 300086, item 8.6, may be adopted.

## 9. REQUIREMENTS FOR EQUIPMENT FOR ACCESS TO MULTIMEDIA CONTENT

### 9.1. Normative reference:

a) Technical Requirements for Electromagnetic Compatibility for Conformity Assessment of Telecommunications Products.

b) Technical Electrical Safety Requirements for Conformity Assessment of Telecommunications Products.

### 9.2. Requirements:

a) Present compliance, where applicable, with the requirements of the normative references.

b) The requirements for the Multimedia Content Access Terminal Station apply to the product that uses communication between restricted radiation devices to gain access to a telecommunications service, such as, for example, the Multimedia Communication Service (SCM) offered by an operator.

c) These requirements do not apply to televisions and computers.

#### 9.2.1.

### 9.3. Test procedures:

a) The test procedures are found in the normative references.

## 10. REQUIREMENTS APPLICABLE TO THE CDMA TECHNOLOGY OF THE PERSONAL MOBILE SERVICE - SMP

### 10.1. Normative reference:

a) TIA / EIA-g8-C.

### 10.2. Requirements:

#### 10.2.1. Compliance with the following items of the regulatory reference:

a) 4.1.1 - Frequency accuracy.

b) 4.4.1 - Output power range in *open loop* .

c) 4.4.5 - Maximum RF output power.

d) 4.4.6 - Minimum controlled output power.

e) 4.5.1 - Emission of spurious conduct.

### 10.3. Test procedures:

a) The test procedures are found in the normative reference.

b) The tests should not take into account variations in temperature and supply voltage.

## 11. REQUIREMENTS FOR SMP TDMA TECHNOLOGY

### 11.1. Normative reference:

a) TIA / EIA / IS-137-A.

### 11.2. Requirements:

#### 11.2.1. Compliance with the following items of the regulatory reference:

a) 3.1.2.2 - Frequency stability.

b) 3.2.1.2 - Digital RF output power.

c) 3.4.2.2 - Emission of spurious and harmonics conducted.

### 11.3. Test procedures:

- a) The test procedures are found in the normative reference.
- b) The tests should not take into account variations in temperature and supply voltage

## 12. REQUIREMENTS FOR SMP GSM / GPRS / EDGE TECHNOLOGIES

### 12.1. Normative reference:

- a) 3GPP TS 51.010-1 V6.5.0 (2005-11).

### 12.2. Requirements:

#### 12.2.1. Compliance with the following items of the regulatory reference:

- a) 12.1.1 - Spurious emission conducted - communication terminal.
- b) 12.1.2 - Spurious emission conducted - inactive terminal.
- c) 13.1 - Frequency and phase error.
- d) 13.3 - Transmission output power, power control and *burst* time , with the exception of temperature and supply voltage variations.
- e) 13.4 - Output RF spectrum.
- f) 13.16.1 - Frequency and phase error in the multi-frame GPRS configuration.
- g) 13.16.2 - Transmission output power in the multi-frame GPRS configuration.
- h) 13.16.3 - Output RF spectrum in multi-frame GPRS configuration.
- i) 13.17.1- Frequency error and modulation accuracy in the EGPRS (EDGE) configuration.
- j) 13.17.3 - Output power of the EGPRS (EDGE) transmitter.
- k) 13.17.4 - Output RF spectrum in the EGPRS (EDGE) configuration.

### 12.3. Test procedures:

- a) The test procedures are found in the normative reference.
- b) The tests should not take into account variations in temperature and supply voltage.

## 13. REQUIREMENTS FOR SMP CDMA2000 TECHNOLOGY

### 13.1. Normative reference:

- a) 3GPP2 C.S0011-A.

### 13.2 Requirements:

#### 13.2.1. Compliance with the following items of the regulatory reference:

- a) 4.1 - Frequency accuracy.
- b) 4.4.1 - Output power range in *open loop* .
- c) 4.4.5 - Maximum RF output power.
- d) 4.5.1 - Emission of spurious conduct.

### 13.3. Test procedures:

- a) The test procedures are found in the normative reference.
- b) The tests should not take into account variations in temperature and supply voltage.

## 14. REQUIREMENTS FOR SMP WCDMA / HSDPA / HSUPA TECHNOLOGIES

### 14.1. Normative reference:

- a) ETSI TS 134 121-1 V9.1.0 (2010-07).

## 14.2. Requirements:

### 14.2.1. Compliance with the following items of the regulatory reference:

- a) 5.2 - Maximum Output Power.
- b) 5.2AA - Maximum Output Power with HS-DPCCH.
- c) 5.2B - Maximum Output Power with HS-DPCCH and E-DCH.
- d) 5.2C - Accuracy of the EU relative power domain code.
- e) 5.2D - Accuracy of the relative power domain code for HS-DPCCH and E-DCH.
- f) 5.3 - Frequency error.
- g) 5.4.1 - Open *loop* power control on the *uplink*.
- h) 5.4.2 - Power control in internal *loop* in the *uplink*.
- i) 5.4.3 - Minimum Output Power.
- J) 5.5.1 - Power emitted with the transmitter turned off.
- k) 5.5.2 - Transmitter temporal mask.
- l) 5.7 - Power configuration in compressed mode - *uplink*.
- m) 5.7 A - HS-DPCCH power control.
- n) 5.9 - Spectral mask of emission.
- o) 5.9A - HS-DPCCH emission spectral mask.
- p) 5.9B - E-DCH emission spectral mask.
- q) 5.11 - Conducted Spurious Emissions.
- r) 5.13.1 - Magnitude vector error.
- s) 5.13.1 A - Error of the magnitude vector with HS-DPCCH.
- t) 5.13.1 AA - Magnitude vector error and phase discontinuity with HS-DPCCH.
- u) 5.13.2A - Error of relative code domain with HS-DPCCH.
- v) 5.13.2B - Error of relative code domain with HS-DPCCH and E-DCH.

### 14.3. Test procedures:

- a) The test procedures are found in the normative reference.
- b) The tests should not take into account variations in temperature and supply voltage.

## 15. REQUIREMENTS FOR HSPA + SMP TECHNOLOGY

### 15.1. Normative reference:

- a) ETSI TS 134 121-1 V9.4.0 (2011-03).

### 15.2. Requirements:

#### 15.2.1. Compliance with the following items of the regulatory reference:

- a) 5.2E - Relative power accuracy in the code domain for HS-DPCCH and E-DCH with 16QAM.
- b) 5.13.1AAA - EVM and original displacement from IQ to HS-DPCCH and E-DCH with 16QAM.
- c) 5.13.2C - Relative error in the code domain for HS-DPCCH and E-DCH with 16QAM.

### 15.3. Test procedures:

a) The test procedures are found in the normative reference.

b) The tests should not take into account variations in temperature and supply voltage.

## 16. REQUIREMENTS FOR SMP LTE TECHNOLOGY

### 16.1. Normative reference:

a) 3GPP TS 36.521-1 V9.5.0 (2011-06).

### 16.2. Requirements:

#### 16.2.1. Compliance with the following items of the regulatory reference:

- a) 6.2.2 - Transmission power.
- b) 6.2.3 - Maximum power reduction.
- c) 6.2.5 - Configured transmission power.
- d) 6.3.2 - Minimum transmission power.
- e) 6.3.4.1 - Transmission / reception time mask (for TDD mode).
- f) 6.5.1 - Frequency stability.
- g) 6.5.2.1 - Magnitude of the Error Vector - EVM.
- h) 6.5.2.2 - Deviation from carrier power.
- i) 6.5.2.3 - Undesirable emissions in the operating band.
- j) 6.6.1 - Occupied bandwidth.
- k) 6.6.2.1 - Spectral mask of emission.
- l) 6.6.2.3 - Interference ratio to the adjacent channel.
- m) 6.6.3.1 - Conducted spurious emissions.

### 16.3. Test procedures:

a) The test procedures are found in the normative reference.

b) The tests should not take into account variations in temperature and supply voltage.

## 17. REQUIREMENTS FOR NB-IOT LTE CAT TECHNOLOGY. SMP M1

### 17.1. Normative reference:

a) ETSI TS 136 521-1 V14.4.0 (2017-11).

### 17.2. Requirements:

17.2.1. Present compliance with the following items of the normative reference, except for tests related to *Multi-Carrier, Carrier-Aggregation and Up Link - MIMO technologies*:

- a) 6.2.2EA - UE Maximum Output Power for UE category M1.
- b) 6.2.3EA - Maximum Power Reduction (MPR) for UE category M1.
- c) 6.2.4EA - Additional Maximum Power Reduction (A-MPR) for UE category M1.
- d) 6.2.5EA - Configured UE transmitted Output Power for UE category M1.
- e) 6.3.2EA - Minimum Output Power for UE category M1.
- f) 6.3.3EA - UE Transmit OFF power for UE category M1.
- g) 6.3.4EA - ON / OFF time mask for UE category M1.
- h) 6.3.5EA - Power Control for UE category M1.
- i) 6.5.1EA - Frequency Error for UE category M1.

- j) 6.5.1EA\_1 - Frequency Error for UE category M1 (CEmodeB).
- k) 6.5.2.1EA - Error Vector Magnitude (EVM) for UE category M1.
- l) 6.5.2.2EA - Carrier leakage for UE category M1.
- m) 6.5.2.3EA - In-band emissions for non allocated RB for UE category M1.
- n) 6.5.2.4EA - EVM equalizer spectrum flatness for UE category M1.
- o) 6.6.1EA - Occupied bandwidth for UE category M1.
- p) 6.6.2.1EA - Spectrum Emission Mask for UE category M1.
- q) 6.6.2.2EA - Additional Spectrum Emission Mask for UE category M1.
- r) 6.6.2.3EA - Adjacent Channel Leakage power Ratio for UE category M1.
- s) 6.6.3EA - Spurious emission for UE category M1.
- t) 6.7EA - Transmit intermodulation for UE category M1.
- u) 7.3EA - Reference sensitivity level for UE category M1.
- v) 7.4EA - Maximum input level for UE category M1.
- w) 7.5EA - Adjacent Channel Selectivity (ACS) for category M1.
- x) 7.6.1EA - In-band blocking for UE category M1.
- y) 7.6.3EA - Narrow band blocking for UE category M1.
- z) 7.8.1EA - Wide band Intermodulation for UE category M1.
- aa) 7.9EA - Spurious emissions for UE category M1.

### 17.3. Test procedures:

- a) The test procedures are found in the normative reference.
- b) The tests should not take into account variations in temperature and supply voltage.

## 18. REQUIREMENTS FOR NB-IOT CAT TECHNOLOGY. SMP NB1

### 18.1. Normative reference:

- a) ETSI TS 136 521-1 V14.4.0 (2017-11).

### 18.2. Requirements:

18.2.1. Present compliance with the following items of the normative reference, except for tests related to *Multi-Carrier, Carrier-Aggregation and Up Link - MIMO technologies*:

- a) 6.2.2F - UE Maximum Output Power for UE category NB1.
- b) 6.2.3F - Maximum Power Reduction (MPR) for UE category NB1.
- c) 6.2.5F - Configured UE transmitted Output Power for UE category NB1.
- d) 6.3.2F - Minimum Output Power for UE category NB1.
- e) 6.3.3F - UE Transmit OFF power for UE category NB1.
- f) 6.3.4F - ON / OFF time mask for UE category NB1.
- g) 6.3.5F - Power Control for UE category NB1.
- h) 6.5.1F - Frequency Error for UE category NB1.
- i) 6.5.2.1F.1 - Error Vector Magnitude (EVM) for UE category NB1.
- j) 6.5.2.2F - Carrier leakage for UE category NB1.
- k) 6.5.2.3F - In-band emissions for non allocated RB for UE category NB1.

- l) 6.6.1F - Occupied bandwidth for UE category NB1.
- m) 6.6.2.1F - Spectrum Emission Mask for UE category NB1.
- n) 6.6.2.3.F - Adjacent Channel Leakage power Ratio for UE category NB1.
- o) 6.6.3F - Spurious emission for UE category NB1.
- p) 6.7F - Transmit intermodulation for UE category NB1.
- q) 7.3F - Reference sensitivity level for UE category NB1.
- r) 7.4F - Maximum input level for UE category NB1.
- s) 7.5F - Adjacent Channel Selectivity (ACS) for category NB1.
- t) 7.6.1F - In-band blocking for UE category NB1.
- u) 7.8.1F - Wide band Intermodulation for UE category NB1.

18.3. Test procedures:

- a) The test procedures are found in the normative reference.
- b) The tests should not take into account variations in temperature and supply voltage.

19. REQUIREMENTS APPLICABLE TO 5G NR TECHNOLOGY ( *NEW RADIO* ) *FREQUENCY RANGE 1 STANDALONE* AND SMP

19.1. Normative reference:

- a) 3GPP TS 38.521-1 V16.3.0 (2020-03).

19.2. Requirements:

- a) 6.2.1 *UE maximum output power* .
- b) 6.2.4 Configured transmitted power.
- c) 6.3.1 *Minimum output power* .
- d) 6.3.3.2 *General ON / OFF time mask* .
- e) 6.4.1 *Frequency Error* .
- f) 6.4.2.1 *Error Vector Magnitude* .
- g) 6.4.2.2 *Carrier leakage* .
- h) 6.4.2.3 *In-band emissions* .
- i) 6.5.1 *Occupied bandwidth* .
- j) 6.5.2.2 *Spectrum emission mask* .
- k) 6.5.2.4.1 *NR ACLR* .
- l) 6.5.3.1 *General spurious emissions* .
- m) 7.9 *Spurious emissions* .

19.2.1. Test procedures:

- a) The test procedures are found in the normative reference.

20. REQUIREMENTS APPLICABLE TO 5G NR TECHNOLOGY ( *NEW RADIO* ) *FREQUENCY RANGE 1 NON-STANDALONE INTRA-BAND NON- CONTIGUOUS* SMP

20.1. Normative reference:

- a) 3GPP TS 38.521-3 V16.3.0 (2020-03).

20.2. Requirements:

- a) 6.2B.1.2 *UE Maximum Output Power for intra-band non-contiguous EN-DC.*
- b) 6.3B.1.2 *Minimum output power for intra-band non-contiguous EN-DC.*
- c) 6.3B.3.2 *Tx ON / OFF time mask for intra-band non-contiguous EN-DC.*
- d) 6.4B.1.2 *Frequency error for Intra-band non-contiguous EN-DC.*
- e) 6.4B.2.2.1 *Error Vector Magnitude for intra-band non-contiguous EN-DC.*
- f) 6.4B.2.2.2 *Carrier Leakage for intra-band non-contiguous EN-DC.*
- g) 6.4B.2.2.3 *In-band Emissions for intra-band non-contiguous EN-DC.*
- h) 7.9B.2 *Spurious Emissions for non-contiguous intra-band EN-DC in FR1 (2 CCs).*

20.3. Test procedures:

- a) The test procedures are found in the normative reference.

21. REQUIREMENTS APPLICABLE TO 5G NR TECHNOLOGY ( *NEW RADIO* ) *FREQUENCY RANGE 1 NON-STANDALONE INTER-BAND SMP*

21.1. Normative reference:

- a) 3GPP TS 38.521-3 V16.3.0 (2020-03).

21.2. Requirements:

- a) 6.2B.1.3 *UE Maximum Output Power for inter-band EN-DC within FR1.*
- b) 6.2B.2.3 *UE Maximum Output Power reduction for inter-band EN-DC within FR1.*
- c) 6.3B.1.3 *Minimum output power for inter-band EN-DC within FR1.*
- d) 6.3B.3.3 *Tx ON / OFF time mask for inter-band EN-DC within FR1.*
- e) 6.4B.1.3 *Frequency error for Inter-band EN-DC within FR1.*
- f) 6.4B.2.3.1 *Error Vector Magnitude for inter-band EN-DC within FR1.*
- g) 6.4B.2.3.2 *Carrier Leakage for inter-band EN-DC within FR1.*
- h) 6.4B.2.3.3 *In-band Emissions for inter-band EN-DC within FR1.*
- i) 6.5B.1.3 *Occupied bandwidth for Inter-Band EN-DC within FR1.*
- j) 6.5B.2.3.1 *Spectrum emissions mask for Inter-band EN-DC within FR1.*
- k) 6.5B.3.3 *Spurious Emissions for Inter-band EN-DC within FR1.*
- l) 7.9B.3 *Spurious Emissions for inter-band EN-DC within FR1 (2 CCs).*

21.3. Test procedures:

- a) The test procedures are found in the normative reference.
- b) Tests in which the normative reference does not allow the application of the " *LTE anchor agnostic* " approach may be performed with anchoring in 3 (three) LTE bands (band with lower frequency, band with intermediate frequency and band with higher frequency), performing the combination of the 3 LTE bands with all NR 5G bands is used.