

PUBLIC CONSULTATION Nº 18

Introduction

Public Consultation 18/2019 proposes to update the technical requirements and test procedures applicable to the conformity assessment of the Transceiver to Radio Base Station product, in order to include criteria for the certification of equipment that operates with *Active Antenna System (AAS)* technology.

THE SUPERINTENDENT OF AWARD AND RESOURCES TO THE BENEFIT - ANATEL, in the use of the attributions granted to him by Ordinance nº 419, of May 24, 2013, and

CONSIDERING the competence given by Sections XIII and XIV of Article 19 of Law No. 9,472 / 97 - General Telecommunications Law;

CONSIDERING Item II of Article 9 of the Regulation for Certification and Certification of Products for Telecommunications, approved by Resolution No. 242 of November 30, 2000;

CONSIDERING Article 1 of Ordinance No. 419 of May 24, 2013; and

CONSIDERING the record of case file no. 53500.012724 / 2019-40.

RESOLVES:

Art. 1 Update the requirements for conformity assessment of the product "Transceiver for Base Station" in the List of Technical Requirements for Telecommunications Products - Category II, inserting conditions for the evaluation of the "*Active Antenna System (AAS) Base Station (BS)*" pursuant to Annex I to this Act.

Article 2 This Act shall enter into force on the date of its publication in the Anatel Electronic Services Bulletin.

ANNEX I

TECHNICAL REQUIREMENTS FOR THE ASSESSMENT OF TRANSCEIVER CONFORMITY FOR BASE RADIO STATION

Active Antenna System technology (AAS) Base Station (BS) - Driven Testing:

Product: Radio Station Base Transceiver		
Normative Document	Applicable Requirements (see note II)	Test Procedures
REQUIREMENTS APPLICABLE TO ALL SERVICES		
(...)		
<p>Technology Active Antenna System (AAS) Base Station (BS) - Tests Conducted:</p> <p><i>ETSI TS 137 145-1 V15.2.0 (2019-04) - Universal Mobile Telecommunications System (UMTS); LTE; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 1: Conducted conformance testing (3GPP TS 37.145-1 version 15.2.0 Release 15) .</i></p>	<p>Apply the following items from the reference standard except for the <i>Multi-Carrier and Carrier-Aggregation</i> tests .</p> <p><i>6.2 Base station output power</i></p> <p><i>6.4 Transmit ON / OFF power (TDD)</i></p> <p><i>6.5.2 Frequency error</i></p> <p><i>6.6.2 Occupied bandwidth</i></p> <p><i>6.6.3 Adjacent channel leakage power ratio (ACLR)</i></p> <p><i>6.6.5 Operating band unwanted emissions</i></p> <p><i>6.6.6 Spurious emissions</i></p> <p><i>6.7 Transmitter intermodulation</i></p> <p><i>7.6 Receiver spurious emission</i></p>	<p>- The test procedures are found in the normative document itself and must be carried out in accordance with the guidelines contained in Chapter 4 (<i>General Test Conditions and Declarations</i>) and Chapter 5 (<i>Applicability of Requirements</i>) of the normative document in question.</p> <p>- For the transmission power test, the maximum output power tolerance shall be $\pm 2,7$ dB for carrier frequency $f \leq 3,0$ GHz and $\pm 3,0$ dB for carrier frequency $f > 3,0$ GHz. The assessment shall be carried out under the conditions of temperature and relative humidity ranges defined in the Climate Cycle test defined in the Technical Requirements for the environmental conditions and tests</p>

		<p>applicable in the conformity assessment of products for telecommunications. Act No. 14098 of November 23, 2017 . The room class to be used must be the one specified by the manufacturer for the operation of the equipment.</p>
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Active Antenna System technology (AAS) Base Station (BS) - Radiated Testing:

<p>Technology Active Antenna System (AAS) Base Station (BS) - Testing radiated:</p> <p><i>ETSI TS 137 145-2 V15.2.0 (2019-04) - Universal Mobile Telecommunications System (UMTS); LTE; Active Antenna System (AAS) Base Station (BS) conformance testing; Part 2: Radiated conformance testing (3GPP TS 37.145-2 version 15.2.0 Release 15) .</i></p>	<p>Equipment that does not permit conducting tests shall be evaluated in a radiated form, as per requirements below referenced.</p> <p>Apply the following items from the reference standard except for the <i>Multi-Carrier and Carrier-Aggregation tests.</i></p> <p><i>6.2 Radiated transmit power</i></p> <p><i>6.3 OTA Base station output power</i></p> <p><i>6.5 OTA Transmit ON / OFF power</i></p> <p><i>6.6.2 OTA Frequency error</i></p>	<p>- The test procedures are found in the normative document itself and must be carried out in accordance with the guidelines contained in Chapter 4 (<i>General Test Conditions and Declarations</i>) and Chapter 5 (<i>Applicability of Requirements</i>) of the normative document in question.</p> <p>- For the transmission power test, the maximum output power tolerance shall be $\pm 2,7$ dB for carrier frequency $f \leq 3,0$ GHz and $\pm 3,0$ dB for carrier frequency $f > 3,0$ GHz. The assessment shall be carried out under the conditions of temperature and relative humidity ranges defined in the Climate Cycle test defined in the Technical Requirements for the environmental conditions and tests applicable in the conformity assessment of products for telecommunications. Act No. 14098 of November 23,</p>
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	<p><i>6.7.2 OTA Occupied bandwidth</i></p> <p><i>6.7.3 OTA Adjacent channel leakage power ratio</i></p> <p><i>6.7.5 OTA Operating band unwanted emissions</i></p> <p><i>6.7.6 OTA Spurious emission</i></p> <p><i>6.8 OTA Transmitter intermodulation</i></p> <p><i>7.7 OTA Receiver spurious emission</i></p>	<p>2017 . The room class to be used must be the one specified by the manufacturer for the operation of the equipment.</p>
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