

European Aviation Safety Agency

European Technical Standard Order (ETSO)

SUBJECT: ACTIVE AIRBORNE GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)
ANTENNA

1 – Applicability

This ETSO gives the requirements for new models of Active Airborne Global Navigation Satellite System (GNSS) Antenna that are manufactured on or after the date of this ETSO must meet in order to be identified with the applicable ETSO marking.

This ETSO apply to equipment intended to receive and provide signals to global positioning system (GPS)/satellite based augmentation system (SBAS) sensors or systems of all operational classes, and GPS/ground based augmentation system (GBAS) sensors or systems that will provide flight path deviation commands to the pilot or autopilot. These standards do not address the use of the signals received through this antenna for other applications. GPS/SBAS receiver operational classes are defined in RTCA document DO-229D “Minimum Operational Performance Standards for Global Positioning System/Wide Area Augmentation System Airborne Equipment” dated December 13, 2006, Section 1.4.2.

Note: For Passive Airborne Global Navigation Satellite System (GNSS) Antenna, see ETSO-C144a

2 - Procedures

2.1. - General

Applicable procedures are detailed in CS-ETSO Subpart A.

2.2 - Specific

None

3 - Technical Conditions

3.1 - Basic

3.1.1 - Minimum Performance Standard

Standards set forth in the RTCA document DO-301 “Minimum Operational Performance Standards for Global Navigation Satellite System (GNSS) Airborne Active Antenna Equipment for the L1 Frequency Band” dated December 13, 2006, Section 2.

3.1.2 - Environmental Standard

See CS-ETSO Subpart A paragraph 2.1

3.1.3 - Computer Software

See CS-ETSO Subpart A paragraph 2.2

3.1.4 Electronic Hardware Qualification.

See CS-ETSO Subpart A paragraph 2.3

3.2 - Specific

3.2.1 Failure Condition Classification

See CS-ETSO Subpart A paragraph 2.4

Failure of the function defined in paragraphs 3.1.1 of this ETSO constitutes a loss of navigation which is a major failure condition.

4 - Marking

4.1 - General

Marking is detailed in CS-ETSO Subpart A paragraph 1.2

4.2 – Specific

None

5 - Availability of Referenced Document

See CS-ETSO Subpart A paragraph 3