

# European Aviation Safety Agency

## European Technical Standard Order

**Subject:** Attitude and Heading Reference Systems (AHRS)

### 1 — Applicability

This ETSO provides the requirements which Attitude and Heading Reference Systems (AHRSs) that are designed and manufactured on or after the date of this ETSO must meet in order to be identified with the applicable ETSO marking.

### 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 No RTCA/DO-334 'Minimum Operational Performance Standards (MOPS) for Solid-State Strap-Down Attitude and Heading Reference Systems (AHRS)', dated 21.3.2012.

This ETSO applies to solid state strap-down AHRS intended to output pitch and roll attitude that does not use gimballed sensors. It also addresses the optional functions of heading, turn, slip and the display of information provided by an AHRS.

When the article provides heading, turn and slip, degraded mode, uses aiding, includes a display, or provides information generated by the AHRS to a stand-alone display, it must, in particular, meet the requirements as listed in the table below.

Optional Functions/Mode/Source	Requirement
Heading	2.2.3
Turn and Slip	2.2.5
Degraded Mode	2.2.4
Aiding	2.2.6
Display	2.5

**ETSO-C201**

3.1.2 — Environmental Standard

See CS-ETSO, Subpart A, paragraph 2.1.

3.1.3 — 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  
None.

3.2.1 — Failure Condition Classification

See CS-ETSO, Subpart A, paragraph 2.4.

4 — Marking

4.1 — General

Marking as 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.