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

This ETSO applies to solid state strap-down AHRS intended to output pitch and roll attitude that does not use gimbaled 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.

<table>
<thead>
<tr>
<th>Optional Functions/Mode/Source</th>
<th>Requirement</th>
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<tr>
<td>Heading</td>
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<td>Turn and Slip</td>
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<td>Degraded Mode</td>
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<td>Display</td>
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</table>
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.