

# ISO 5109:2023-07 (E)

## Evaluation method for the resonance frequency of the multi-copter UA (unmanned aircraft) by measurement of rotor and body frequencies

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Test method .....	2
4.1	Test setup .....	2
4.1.1	General .....	2
4.1.2	Hammering method .....	2
4.1.3	Excitation table method .....	4
4.2	Concept of an operation frequency .....	4
5	Analysis of natural frequency and operation frequency .....	5
5.1	Natural frequency .....	5
5.1.1	General .....	5
5.1.2	Natural frequency measurement .....	6
5.2	Operation frequency .....	6
5.2.1	Operation frequency measurement .....	6
5.2.2	Thrust force measurement .....	6
6	Evaluation of resonance .....	7
6.1	General .....	7
6.2	Operating frequency and natural frequency overlapping .....	7
Bibliography .....		9