

**DO-160F TEST REPORT**

*for:*  
**Ventilator**

**Model:**  
**HT70**

Prepared for

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	REPORT	APPENDICES	TOTAL
	BODY	A	PAGES
Pages	13	20	33

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**8. GENERAL TEST PROCEDURES****8.1 Emissions of Radio Frequency Energy****8.1.1 Conducted RF Emission**

The EUT was configured as described in section 7.2 of this test report. The EUT was set up to operate as specified in section 7.5 of this test report. The photographs of the test setup are shown with the data sheets in Appendix A.

The radio frequency emissions tests were performed as described in the RTCA standard DO-160F to determine the emissions levels of electromagnetic energy in the frequency range of 150 kHz to 152 MHz. The EUT was tested to measure if the RF conducted emissions were within the Category M levels specified in the RTCA standard DO-160F. The conducted emissions on power leads were measured using the current probe method.

The conducted emissions were measured using the Fischer F-42 current probe and the HP spectrum analyzer under program control. The Compatible Electronics Shield Room Emissions EMI measurement software (Version SR21) was used to collect the data. The plotted data is shown with respect to the actual specification limit. The data has been corrected for all factors, including current probe and cable loss factors.

**Test Results:**

The summary of the test is listed below.

<b>Cable Description</b>	<b>Result</b>
Power Input	PASS

The EUT meets RTCA DO-160F, Section 21.3, Category M requirements.

### 8.1.2 Radiated RF Emission

The EUT was configured as described in section 7.2 of this test report. The EUT was set up to operate as specified in section 7.5 of this test report. The photographs of the test setup are shown with the data sheets in Appendix A.

The receiving antenna was placed one meter away from the EUT facing the area of maximum emission. The antennas used and their applicable frequency ranges are listed below.

Antenna	Frequency Range
Biconical Antenna	100 MHz to 300 MHz
Log Periodic Antenna	300 MHz to 1 GHz
Horn Antenna	1 GHz to 6 GHz

The radiated emissions were measured using the broadband antennas listed above and the HP spectrum analyzer under program control. The Compatible Electronics Shield Room Emissions EMI measurement software (Version SR21) was used to collect the data. The EUT was tested to measure if the RF radiated emissions were within the Category M levels specified in the RTCA standard DO-160F. The data is shown with respect to the actual specification limit, i.e., it has been corrected for antenna factors, amplifier gain and cable loss factors.

#### Test Results:

The summary of the test is listed below.

Frequency Range (MHz)	Antenna	Polarization	Result
100 to 300	Biconical	Horizontal	PASS
100 to 300	Biconical	Vertical	PASS
300 to 1000	Log Periodic	Horizontal	PASS
300 to 1000	Log Periodic	Vertical	PASS
1000 to 6000	Horn	Horizontal	PASS
1000 to 6000	Horn	Vertical	PASS

The EUT meets RTCA DO-160F, Section 21.4, Category M requirements.

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**9. CONCLUSION**

The Ventilator Model: HT70 was tested as specified in the RTCA document DO-160F “Environmental Conditions and Test Procedures for Airborne Equipment” and meets the applicable requirements as specified in Section 21 of RTCA DO-160F.