Letter of Certification

Water Intrusion Test

Prepared for:	**Test Dates**	
Southern Avionics Company P.O. Box 5345 Beaumont, TX 77726-5345	**Start:**	1/18/2010
	Completion:	1/18/2010
	Environ Test Number:	**41415-4**
Attention: Ms. Caroline Morales	**Purchase Order Number:**	**09111801**
	Purchase Date:	12/18/2009

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Environ Laboratories LLC certifies that one Small and one Large Enclosure were subjected to an IPX6 Water Intrusion Test as specified in *IEC 60529,* Edition 2.1, 2001-02, Paragraph 14.2.6, 12.5 mm nozzle, as requested in Southern Avionics Company purchase order 09111801, dated November 18, 2009.

Manufacturer	Southern Avionics Company	
Device	Small Enclosure	Large Enclosure
Part Number	SLM33001	SLM33002
Serial Number	SE125 Single	SE125 Dual

The results of this test apply only to the units identified in this Engineering Report by device identifier and model / part number, or serial number.

The small enclosure was mounted on the test stand. All closure bolts were torqued to 20 in-lbs. The 12.5 mm diameter test nozzle was positioned at a distance of 2.5 meters from the test unit and the water pressure was adjusted to deliver 100 liters per minute (26.4 gallons per minute). The test unit was sprayed for 3 minutes. The test was then repeated for the large enclosure. Visual examination of the test units upon completion of the exposure revealed no evidence of water infiltration. The test units met the requirements of the Water Intrusion Test of *IEC 60529,* Edition 2.1, 2001-02, Paragraph 14.2.6, at Degree of Protection IPX6. The test units were retained at Environ Laboratories.

Ian R. Campbell, Test Engineer

David M. Gillen, Vice President

Instrumentation

All instrumentation is calibrated regularly by instruments directly traceable to the National Institute of Standards and Technology, and in accordance with *MIL-I-45208A, ANSI/NCSL Z540.3-2006,* and *ISO/IEC 17025: 2005*.

Equipment Number	Description	Manufacturer	Model Number	Last Calibration	Due Calibration	Range
200-232	Digital Thermometer	Fluke	51 II	3/26/2009	3/26/2010	-250° to +400°C
400-047	Stopwatch	Extech Instruments	365510	11/23/2009	11/23/2010	0 to 23 hrs 59 mins 59 sec
504-042	Nozzle	TRW	EW-4	3/24/2009	3/24/2010	12.5 mm
717-042	Flowmeter	Omega Instruments	FL-75L	10/12/2009	10/12/2010	8 to 80 GPM
740-064	Dial Torque Wrench	MAC Quality Tools	TWD X 150IN	8/4/2009	8/4/2010	0 to 150 in/lbs; 0 to 18 Newton Meters
770-049	Measuring Tape	Lufkin	HW226	8/18/2009	8/18/2010	0 to 100 feet