

# INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRiP Implementation Society (NATIS), Govt. of India]

## TEST REPORT

Non-Transferable

Date: 31.01.2018

C D O M N O O 2 6


1.0 NAME AND ADDRESS OF THE CUSTOMER

:M/s. iTriangle Info Tech Pvt. Ltd  
No. 803/A (A-1-3) 76th 'A' cro west of chord road, 6th Block Rajaji Nagar Industrial Estate Bangalore-560010 Karnataka INDIA

2.0 CUSTOMER REFERENCE

: CCDITRIMNEMC56923; Dated:20-Dec-2017

3.0 DESCRIPTION OF DEVICE UNDER TEST (DUT) :

VTS (Vehicle Tracking System)	Emergency Button
Model No: aQuila BHARAT101	Model No: aQuila SOS
Part No: ITR-BH-0019	Part No: ITR-PB-0023
Assembly Drawing No. : ITR000-10_128_G2.2	
B.O.M. (Bill of Material): ITR000-10_128_B2.2	
Schematic No.: ITR000-10_128_S2.2	
GSM/GPRS Module: SIM800	
GNSS Module: Quectel L-86	
Accelerometer & Gyroscope Module: LSM6DSL	
Voltage System: 12V & 24V	

4.0 TEST OBJECTIVE AND OBSERVATION:

To conduct tests as per clause no. 6.3.2 (4 and 12) of AIS 140 as amended up to Dec' 2017 further referring to AIS004 Part 3 as amended up to April 2015 and ISO 7637-2:2004. Test observations, photographs & graphs are mentioned in Annexure – I to Annexure – IV of this test report.

5.0 FUNCTIONAL VERIFICATION:




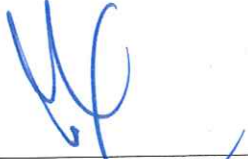

DUT was powered on with 27V DC (24V DC system) for all tests (as mentioned in Sr. No. 8.0 below) as per AIS 140 as amended up to Dec' 2017 and also with 13.5V DC (12V DC system) for conducted immunity and conducted transient emission tests. Performance was observed during and after each test by observing performance of the Vehicle Tracking System through data strings.

6.0 CONCLUSION:

The component mentioned in Sr. No. 3 above meets the requirements as per clause no. 6.3.2 (4 and 12) of AIS 140 as amended up to Dec' 2017.

**Disclaimer**

This test report pertains only to the test samples / components / parts/ assemblies/ gensets/ materials /fuels/chemicals/engines/vehicles/Agri. Tractors etc. actually tested /witnessed / verified by ICAT in the presented condition based on the documents / information produced / submitted by the customer. The issuance of this test report alone does not indicate any measure of approval, certification, supervision, COP, control of quality surveillance by ICAT of the test samples / items/ components. No extract, abridgment or abstraction from this test report may be published or used to advertise the product without the written consent of the Director, ICAT, who reserves the absolute right to agree or reject all or any of the details of any items of publicity for which consent may be sought. ICAT is in no way responsible for any misuse or copying of any design in connection with entire vehicle / components / systems and assemblies. Breach of any statutory provisions, of Indian laws or laws of other countries, will be sole responsibility of the customer. ICAT shall not be liable for any claims or damages made by the customer, whatsoever. The customer shall alone be liable for the same and undertakes to indemnify ICAT in this regard. Further, ICAT has the right to initiate cancellation / withdrawal of the certificate / report issued, in case of any fraud, misrepresentation, when it comes to the knowledge of ICAT. The appropriate local court at Gurgaon shall have the jurisdiction in respect of any dispute, claim or liability arising out of this report.

Prepared By	Checked By		Approved By	
 ADITI SETHI Deputy Manager	 MADHUSUDAN JOSHI Deputy General Manager		 S. K. KALIA CBO ICAT Centre-2	




7.0 CLASSIFICATION OF FUNCTIONAL STATUS:

CLASSIFICATION OF FUNCTIONAL STATUS AS PER (A.4) ANNEX-A, ISO 7637-2:2004:	
CLASSES	DESCRIPTION
<u>CLASS A</u>	All functions of the device/system perform as designed during and after the test.
<u>CLASS B</u>	All functions of the device/system perform as designed during the test. However, one or more may go beyond the specified tolerance. All functions return automatically to within normal limits after the exposure is removed.
<u>CLASS C</u>	One or more functions of a device/system do not perform as designed during the test but return automatically to normal operation after the exposure is removed.
<u>CLASS D</u>	One or more functions of a device/system do not perform as designed during the exposure and do not return to normal operation until exposure is removed and the device/system is reset by simple 'operator/use' action.
<u>CLASS E</u>	One or more functions of a device/system do not perform as designed during and after exposure and cannot be returned to proper operation without repairing or replacing the device/system.

8.0 TEST DETAILS:

Sr. No.	TEST TITLE	SAMPLE ID	REF. STD.	OBSERVATIONS/ RESULTS
1	Radiated emission measurement	ICAT/EMC/56923/01	AIS004 - Part 3: 2009 as amended up to April 2015	PASS
2	Radiated Immunity			PASS
3	Conducted Transient Emission		ISO 7637-2:2004	PASS
4	Conducted Immunity-Test Pulse 1, 2a, 2b, 4, 5a (Load Dump)			PASS

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Prepared By		Checked By	
 ADITI SETHI Deputy Manager		 MADHUSUDAN JOSHI Deputy General Manager	Page 2 of 27 + Dwg. (03) [56923]