# Test Certificate

CERTIFICATE No: TRA-030624-37-02A

ISSUE: A

DATE: 19/2/2016

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|---|---|
| PURPOSE OF TEST: | EMC Emissions and Susceptibility Testing |
| CLIENT ORDER No: | 1771 |
| CLIENT: | C2UK Ltd, Unit 1, Twyford Court, Rotherwas, Hereford, HR2 6JR, United Kingdom |
| EQUIPMENT UNDER TEST: | C-LITE TAC<br>Data Logger<br>Model 10-009-02<br>Serial No.001 |
| TEST SPECIFICATIONS: | Defence Standard 59-411 Part 3, Issue 2, March 2014 |
| TEST DATE: | 8/2/2016 |
| TEST LOCATION: | Element Materials Technology, 100 Frobisher Business Park, Malvern, Worcestershire, WR14 1BX |
| TESTS CARRIED OUT: | See Page 2 |
| TEST RESULTS: | Measured as compliant<br>(Measurement uncertainty as per RF522 current issue) |

| WRITTEN BY: | APPROVED BY: |
|---|---|
| D Robinson<br>EMC Test Engineer | A Bitcon<br>Technical Authority |





Element Materials Technology Warwick Ltd.
Registered in England and Wales. Registered Office: 5 Fleet Place, London, EC4M 7RD
Company Reg No. 02536659

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TESTS CARRIED OUT:

| Test Method and Description | Test Result |
|---|---|
| **DRE01.B** Radiated Emissions Electric (E) Field 10 kHz to 18 GHz | Pass |
| **DRE03.B** Radiated Emissions E Field (Land Service) Tuned Antenna 1.6 MHz to 30 MHz | Pass |

**NOTES:**

1. Full test detail contained in Element report TRA-030624-37-01A



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# Test Certificate

CERTIFICATE No: TRA030624CC01

ISSUE: A

DATE: 29/02/2016

| | |
|---|---|
| PURPOSE OF TEST: | Environmental Testing |
| CLIENT ORDER No: | 1771 |
| CLIENT: | Andrew Atkinson<br>C2UK Ltd, Unit 1, Twyford Court, Rotherwas, Hereford, GB. HR2 6JR. |
| EQUIPMENT UNDER TEST: | Part Number: C-Lite TAC<br>Element Stores Number: TRA-030624-S1<br>Receipt date: 11th February |
| TEST SPECIFICATIONS: | Tested in accordance with Element quotation TRA-030624-02 date 3rd February 2016 which refers to DEF STAN 00-35, Part 3, Issue 4 and MIL-STD-810G |
| TEST DATE: | 11th February 2016 to 15th February 2016 |
| TEST LOCATION: | Element Materials Technology, Rothwell Road, Warwick, Warwickshire, CV34 5JX |

WRITTEN BY:

Richard Santhouse
Test Engineer

APPROVED BY:

Matthew Pitham
Department Manager - Environmental





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**TESTS CARRIED OUT:**

High Temperature and Humidity Test
The specimen was operational and placed in a chamber. A platinum resistance thermometer (PRT) and humidity probe was placed adjacent to the specimen to measure the air temperature and humidity. An additional one PRT was attached to the specimen. The sensors were connected to an external digital chart recorder to record the temperatures and humidity throughout the test.

The air temperature and humidity were stabilised at the required start levels, and the specimen was tested in accordance with the specification. On completion the specimen was returned to laboratory ambient conditions where it was visually inspected and function checked

Low Temperature Test
The specimen remained operational in the same chamber from the previous test in the same configuration.

The air temperature was stabilised at the required start levels, and the specimen was tested in accordance with the specification. On completion the specimen was returned to laboratory ambient conditions where it was visually inspected and function checked

Vibration and Shock Test
The specimen was fixed to an adapter plate, which in turn was attached to an electrodynamics vibration system for the Z axis and a hydrostatic slip plate for the X and Y axes. Two control accelerometers were attached at the specimen/fixture interface in diametrically opposite corners and an averaged control strategy was employed.

The specimen was operational and subjected to the vibration test in the Z axis in accordance with the specification. On completion the specimen was visually inspected by the Element Test Engineer and function checked by the C2UK Limited representative.

The specimen remained operational and was subjected to the shock test in accordance with the specification in the same axis, using control accelerometer 1 utilising a single point control strategy. On completion the specimen was visually inspected and function checked.

On completion the specimen was reconfigured into the X axis and the vibration and shock test sequence was repeated. Finally the specimen was rotated into the Y axis and the test sequence was repeated.

**TEST RESULTS:**
The specimen completed the test in accordance with the specifications. No visible sign of damage or degradation was noted to the specimen upon completion of the test. The C2UK Limited representative reported the specimen operated correctly without any issues throughout and upon completion of the test.