



**EMC Engineering Test Report**  
**Ingenium Project Number: JCEAQ1201**

**EMC Testing of:**  
Dickson Company “WiZARD2 - 2.4 GHz Transceiver”

**Prepared for:**  
Dickson Company  
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**Test Date(s):**  
August 31<sup>ST</sup> through September 10<sup>TH</sup>, 2010

**Photo set extracted from report**

*All results of this report relate only to the items that were tested.  
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Figure 1: The Dickson 'Wizard2' telemetry system, as tested: Front view, right side view, and rear view.

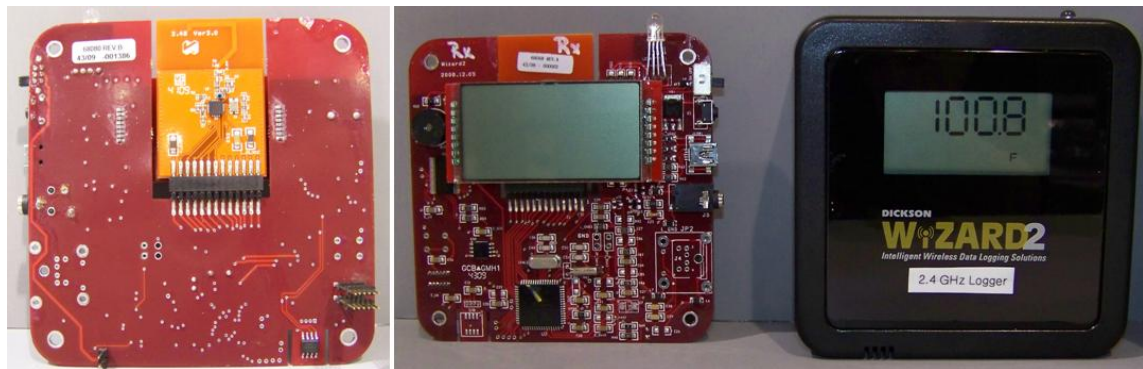


Figure 2: The transceiver section shown with the connector, in the left photo in the photo set.



Figure 3: Power source options of Battery, USB, and Wall-type Step-Down transformer may be used with the WiZARD2.

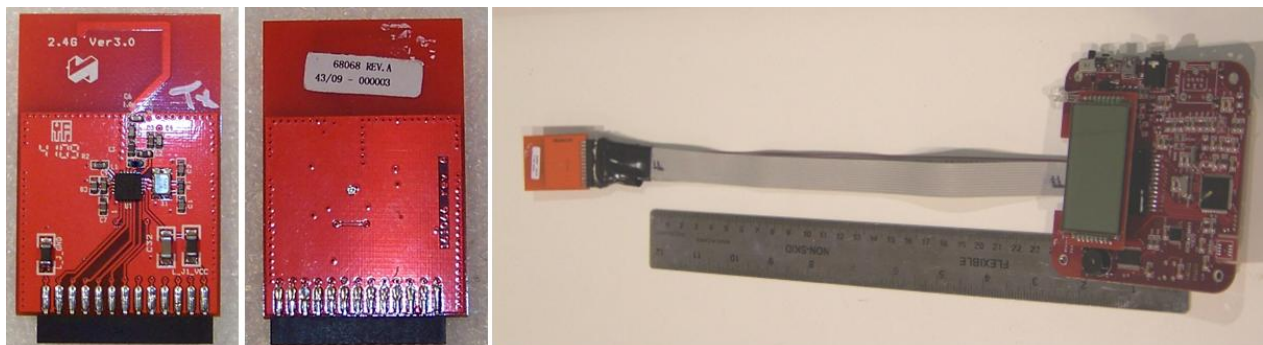


Figure 4: Vie of the RF Module and Extension Harness used for Limited Modular qualification tests.

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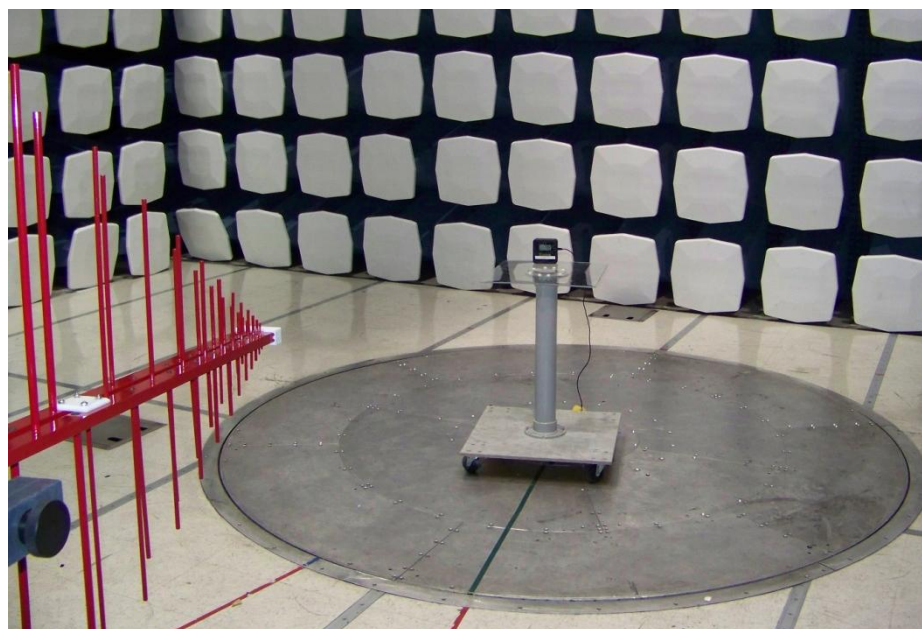


Figure 5: EUT on Test Pedestal as viewed from the sense antenna; emission testing below 1 GHz, at 3m separation distance.

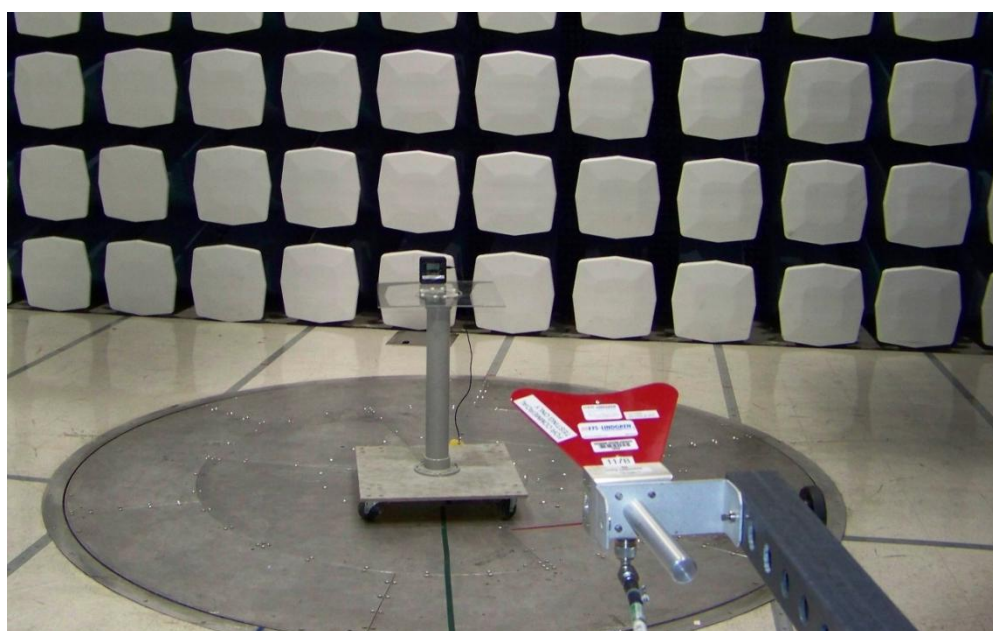


Figure 6: EUT on Test Pedestal; emission testing above 1 GHz, at 3m separation distance.

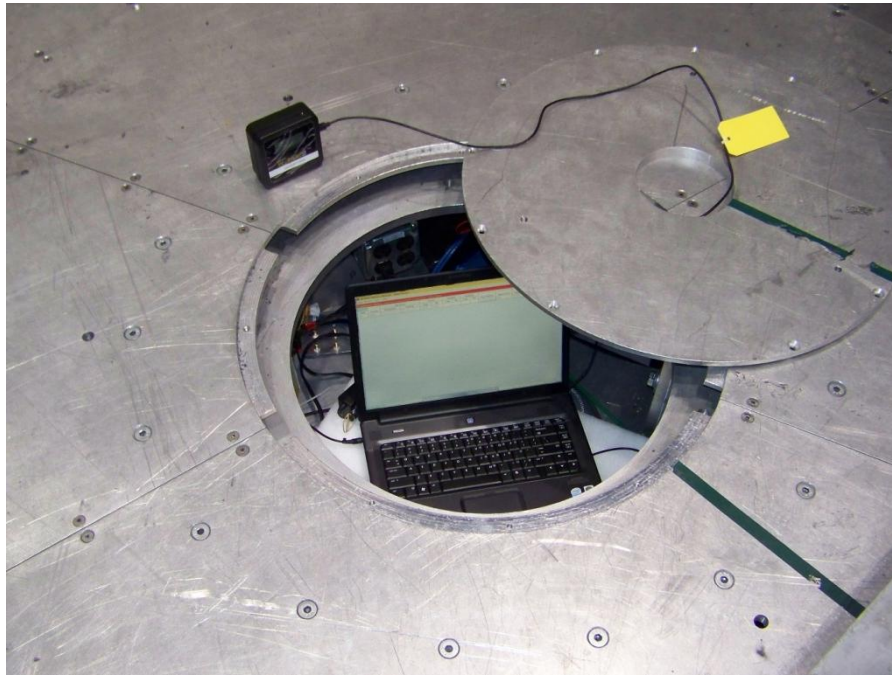


Figure 7: The Lap-top computer providing the power through USB port was placed beneath the turn-table during testing.

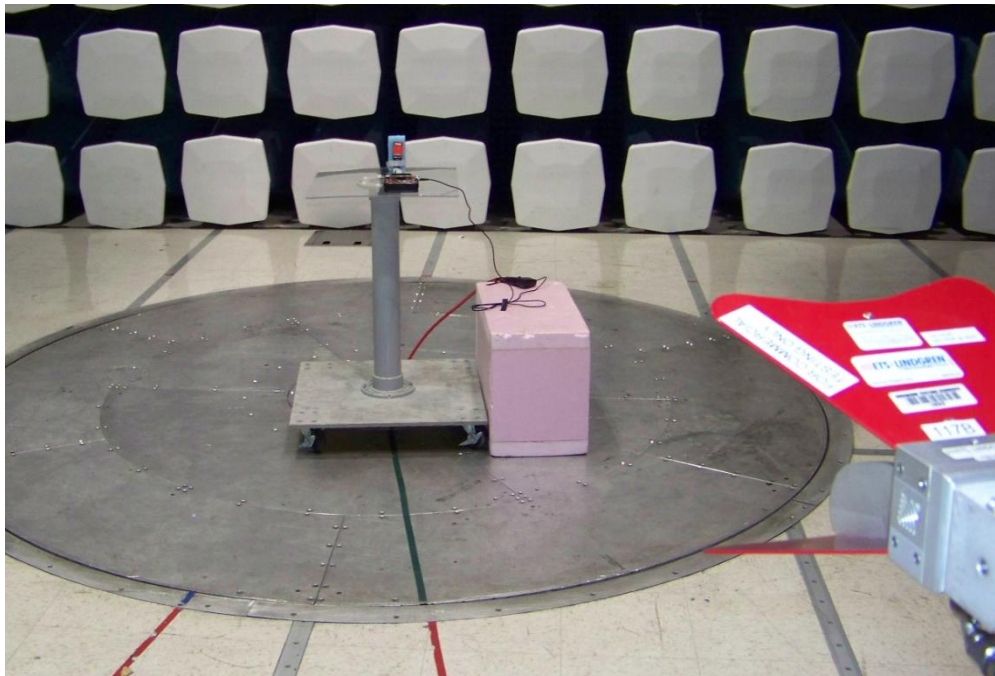


Figure 8: The Wall-type step-down transformer was placed on a non-conductive pedestal 40 cm above ground plane.



**Test Setup Photos: Orientations and views during investigation in three orthogonal axis in host mode:**



Figure 9: Vertical orientation reference point - tests for host qualification.



Figure 10: Horizontal orientation reference point- tests for host qualification.



Figure 11: Side orientation reference point- tests for host qualification.

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**Test Setup Photos: Orientations and views during investigation in (LMA) mode:**

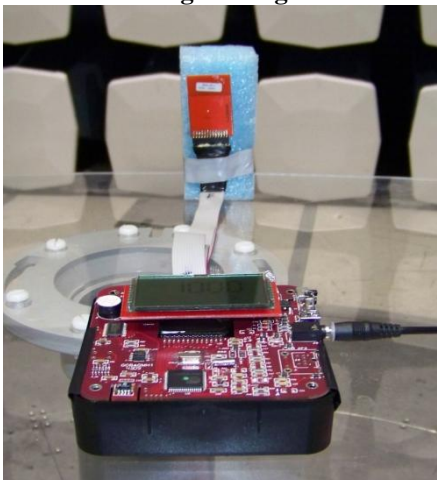


Figure 12: Vertical orientation reference point – tests for (LMA) qualifications.

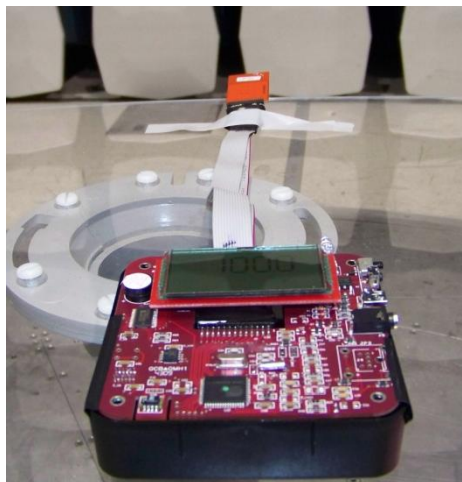


Figure 13: Horizontal orientation reference point– tests for (LMA) qualifications.

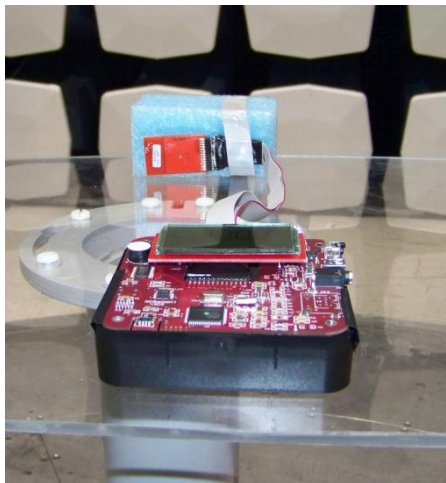


Figure 14: Side orientation reference point– tests for (LMA) qualifications.

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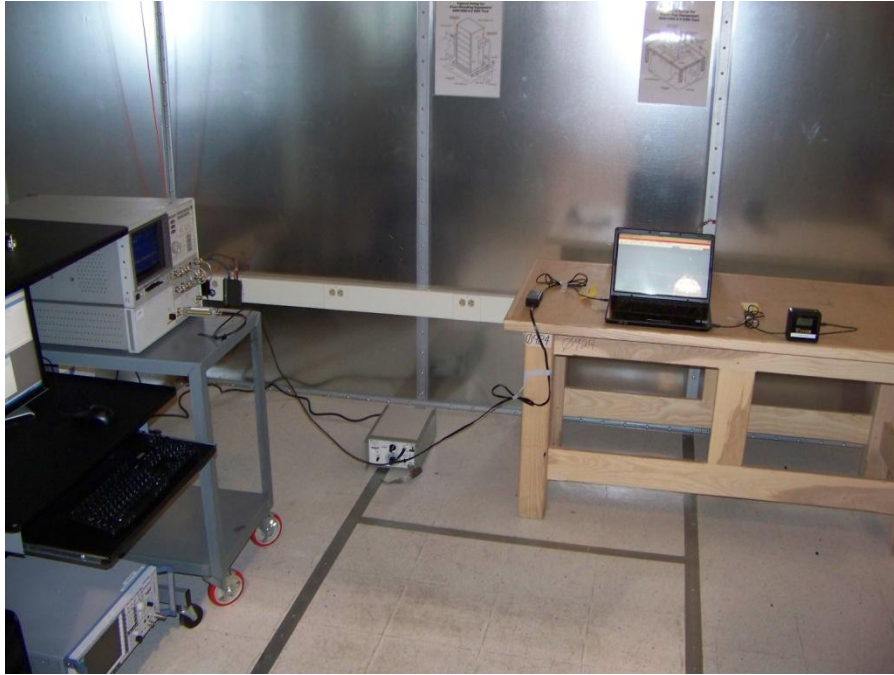


Figure 15: Equipment setup during Conducted RF Emissions tests – showing test instruments relative to EUT

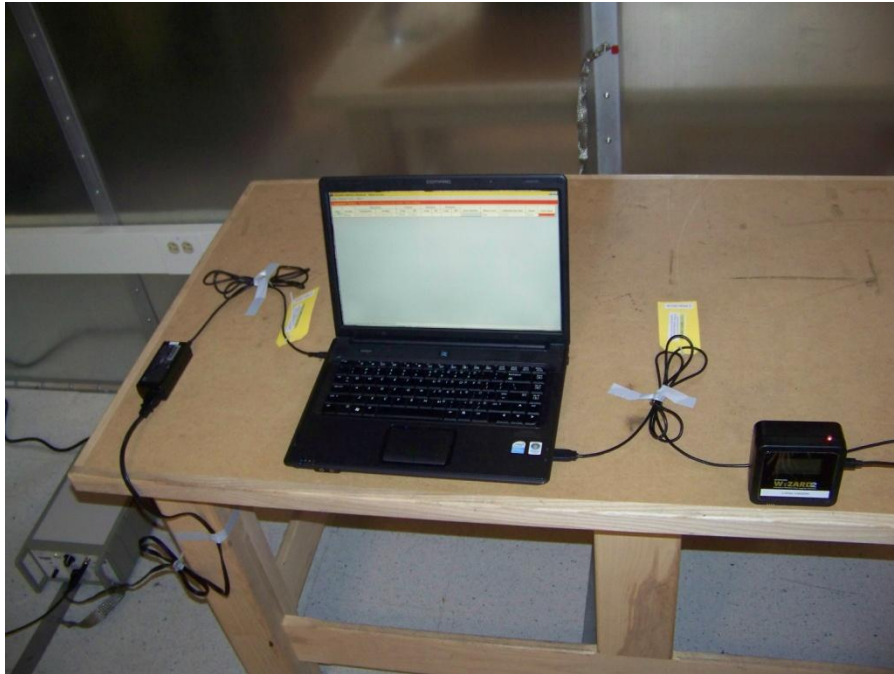


Figure 16: Equipment setup during Conducted RF Emissions tests – representative test showing EUT powered through USB port of a lap-top computer.



Figure 17: Equipment setup during Conducted RF Emissions tests – representative test showing EUT (Tx-LMA mode) powered by a wall-type step-down transformer.



Figure 18: EUT on Test Pedestal during Occupied Bandwidth testing.