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## FCC PART 15 ERP TEST REPORT

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Applicant</b>            | <b>MOTOROLA SOLUTIONS, INC.</b>                                        |
| <b>Address</b>              | 8000 WEST SUNRISE BLVD<br>FT. LAUDERDALE FL 33322-9947 USA             |
| <b>FCC IC</b>               | AZ489FT5870                                                            |
| <b>Model Number</b>         | DLR1060                                                                |
| <b>Product Description</b>  | 4 CH 900 MHZ FH RADIO                                                  |
| <b>Date Sample Received</b> | 3/2/2015                                                               |
| <b>Date Tested</b>          | 3/2/2015                                                               |
| <b>Date Report Issued</b>   | 3/2/2015                                                               |
| <b>Tested By</b>            | Cory Leverett                                                          |
| <b>Approved By</b>          | Sid Sanders                                                            |
| <b>Test Results</b>         | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL |

| Report Number              | Version Number | Description   | Issue Date |
|----------------------------|----------------|---------------|------------|
| 418UT15TestReport_ERP.docx | Rev.1          | Initial Issue | 3/2/2015   |

**THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.**

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## GENERAL REMARKS

The attached report shall not be reproduced except in full without the written permission of Timco Engineering Inc.

The test results only relate to the item tested.

## ATTESTATIONS

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025: 2005 requirements.

I attest that the necessary measurements were made, under my supervision, at:

Timco Engineering Inc.  
849 NW State Road 45  
Newberry, FL 32669

### Authorized Signatory Name:

Cory Leverett  
Engineering Project Manager

**Date:** 3/2/2015



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## TEST ENVIRONMENT

|                                  |                                                                         |
|----------------------------------|-------------------------------------------------------------------------|
| Test Facility                    | Timco Engineering, Inc. 849 NW State Road 45<br>Newberry, FL 32669 USA. |
| Test Condition in the laboratory | Temperature: 24-26°C<br>Relative humidity: 50-65%                       |

## TEST SETUP SUMMARY

|                                       |                                                                                                                                                                                                                     |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Setup Diagram/<br>Description    | The EUT was placed on the turntable. The EUT was positioned in three orthogonal phases and the Output power was maximized. The EUT placed In a horizontal position on its right side produced the strongest signal. |
| Deviation from the standard/procedure | No deviation                                                                                                                                                                                                        |
| Modification of EUT                   | No modification                                                                                                                                                                                                     |

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## EUT SPECIFICATION

|                              |                                                                                         |
|------------------------------|-----------------------------------------------------------------------------------------|
| <b>EUT Description</b>       | 8 CH 900 MHZ FH RADIO                                                                   |
| <b>EUT Applications</b>      | Portable Radio                                                                          |
| <b>FCC ID</b>                | AZ489FT5870                                                                             |
| <b>Model Number</b>          | DLR1060                                                                                 |
| <b>Frequency Range</b>       | 902.525 – 927.475 MHz                                                                   |
| <b>Test Frequencies</b>      | 902.525, 915.525, 927.475 MHz                                                           |
| <b>No. Channels</b>          | 8                                                                                       |
| <b>EUT Power Source</b>      | <input type="checkbox"/> 110–120Vac/50– 60Hz (Rx Only with Charger)                     |
|                              | <input type="checkbox"/> DC Power                                                       |
|                              | <input checked="" type="checkbox"/> Battery Operated Exclusively                        |
| <b>Test Item</b>             | <input type="checkbox"/> Prototype                                                      |
|                              | <input checked="" type="checkbox"/> Pre-Production                                      |
|                              | <input type="checkbox"/> Production                                                     |
| <b>Type of Equipment</b>     | <input type="checkbox"/> Fixed                                                          |
|                              | <input type="checkbox"/> Mobile                                                         |
|                              | <input checked="" type="checkbox"/> Portable                                            |
| <b>Modifications to EUT:</b> | <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (explanation below) |
| <b>Test Mode Description</b> | Tuned to the Low, Middle, and High Frequency without modulation.                        |

## EUT CABLES FOR TESTING

| Description | Type | Connector | Length |
|-------------|------|-----------|--------|
| NA          |      |           |        |

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## EFFECTIVE RADIATED POWER

### Test Procedure: FCC KDB 412172 D01 Determining ERP and EIRP v01

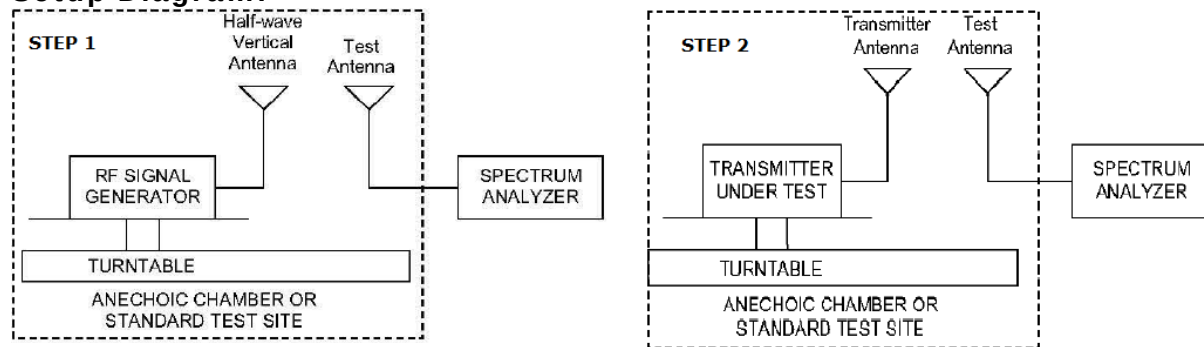
The ERP/EIRP is determined from the power setting of a signal generator used in the signal/antenna substitution test configuration as follows:

$$\text{ERP/EIRP} = \text{PSigGen} + \text{GT} - \text{LC}$$

where:

- **PSigGen**= power setting of the signal generator that produces the same received power reading as the DUT, in dBm, dBW or psd;
- **GT**= gain of the substitute antenna, in dBd (ERP) or dBi (EIRP);
- **LC**= signal loss in the cable connecting the signal generator to the substitute antenna, in dB.

### Setup Diagram:



### Results:

| Freq (MHz) | Read Level (dBm) | Sig Gen (dBm) | Coax Loss (dBm) | Ant Gain dB | ERP (dBm) |
|------------|------------------|---------------|-----------------|-------------|-----------|
| 902.525    | 0.42             | -27.45        | -0.3            | 5.32        | 33.49     |
| 915.525    | 0.82             | -27.73        | -0.25           | 4.83        | 33.63     |
| 927.475    | -0.28            | -28.09        | -0.28           | 4.17        | 32.26     |

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## TEST EQUIPMENT LIST

| Device                                      | Manufacturer    | Model   | Serial Number        | Cal/Char Date | Due Date |
|---------------------------------------------|-----------------|---------|----------------------|---------------|----------|
| Signal Generator                            | HP              | 8640B   | 2308A21464           | 2/23/14       | 2/23/16  |
| Antenna:<br>Log-Periodic Chamber            | Eaton           | 96005   | 1243                 | 05/31/13      | 05/31/15 |
| 3-Meter<br>Semi-Anechoic Chamber            | Panashield      | N/A     | N/A                  | 12/31/13      | 12/31/15 |
| Chamber<br>Coax 3 Piece set                 | Semiflex        | N/A     | Chamber 3 cable set. | 1/13/14       | 1/13/16  |
| EMI Test Receiver R & S ESIB 40 Screen Room | Rohde & Schwarz | ESIB 40 | 100274               | 08/12/14      | 08/12/16 |
| Software:<br>Field Strength Program         | Timco           | N/A     | Version 4.0          | N/A           | N/A      |
| Coax Cable                                  | NA              | E9917   | Tmco # 65            | 6/26/13       | 6/26/15  |

### \*EMI RECEIVER SOFTWARE VERSION

The receiver firmware used was version 4.43 Service Pack 3

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