



www.nemko.com

Photograph test report

206658RADWL1

Date of issue
May 10, 2012

Applicant **BelAir Networks**
Product **Wi-Fi Access Point**
Model **BelAir20EO**
FCC ID **RAR40005011**
IC Reg # **4674A-40005011**

Test location

Nemko Canada Inc.
303 River Road
Ottawa, ON, K1V 1H2
Canada
Test site FCC ID: 176392 and IC ID: 2040A-4 (3 m semi anechoic chamber)

Telephone +1 613 737 9680
Facsimile +1 613 737 9691
Toll free +1 800 563 6336
Website www.nemko.com

Prepared by Andrey Adelberg, Senior Wireless/EMC Specialist

Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.
This test report has been completed in accordance with the requirements of ISO/IEC 17025. All results contain in this report are within Nemko Canada's ISO/IEC 17025 accreditation.

Copyright notification

Nemko Canada Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.
Nemko Canada Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.
© Nemko Canada Inc.



Table of Contents

- Section 1 Equipment under test (EUT) details 4**
 - 1.1 Sample information 4
 - 1.2 EUT information 4
 - 1.3 Technical information 4
 - 1.4 Product description and theory of operation 4
 - 1.5 EUT exercise details 4
 - 1.6 EUT setup diagram 4
 - 1.7 Support equipment 4
- Section 2 Block diagrams of test set-ups 5**
 - 2.1 Radiated emissions set-up 5
 - 2.2 Conducted emissions set-up 5
- Section 3 Test set-up photographs 6**
 - 3.1 Radiated emissions set-up 6
 - 3.2 Conducted emissions set-up 8



Section 1 Equipment under test (EUT) details

1.1 Sample information

Receipt date April 17, 2012
Nemko sample ID number 1

1.2 EUT information

Product name Wi-Fi Access Point
Model BelAir20EO
Serial number BA120700303
Product code BelAir20EO-11BR

1.3 Technical information

Operating band 2400–2483.5 MHz
Operating frequency 2412–2462 MHz (20 MHz channel) and 2422–2457 MHz (40 MHz channel)
Modulation type 802.11b/g/n
Occupied bandwidth (99 %) 13.95 MHz (802.11b); 17.35 MHz (802.11g);
 18.30 MHz (802.11n 20 MHz); 37.10 MHz (802.11n 40 MHz)
Emission designator W7D
Power requirements 48 V_{DC}
Antenna information 2 Internal 4.4 dBi antennas

1.4 Product description and theory of operation

The EUT is a 2x2 MIMO combo Wi-Fi module designed to operate in the 2.4–2.4835 GHz band, and 5 GHz ISM and UNII bands. There are two independent radio units. This report covers only the 2.4 GHz radio.

1.5 EUT exercise details

The EUT was controlled to transmit at desired frequency and modulation from laptop using Art GUI software and telnet session.

1.6 EUT setup diagram

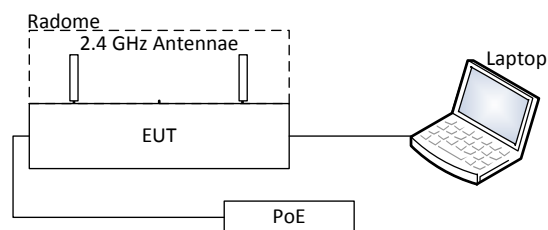


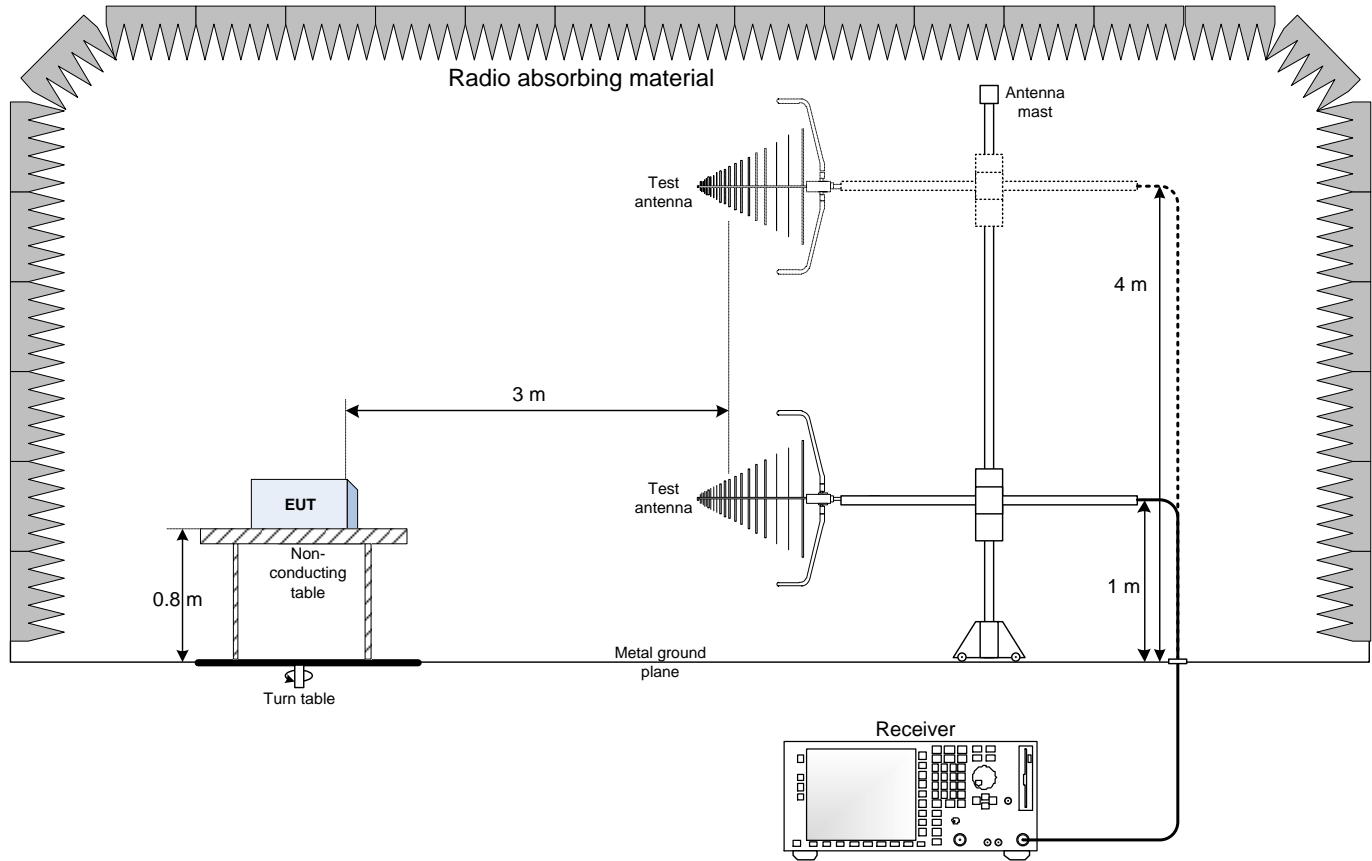
Diagram 1.6-1: Setup diagram

1.7 Support equipment

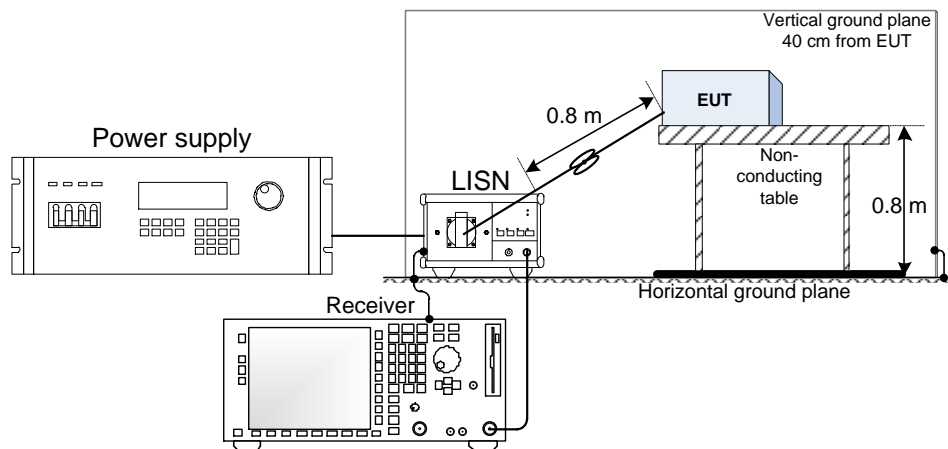
Description	Brand name	Model/Part number	Serial number
Laptop	Toshiba	Satellite	BelAir asset number: 441
PoE adapter	Cincon Electronics Co., Ltd.	TRG60A-POE-L	RD Sample 4 1127

Section 2 Block diagrams of test set-ups

2.1 Radiated emissions set-up

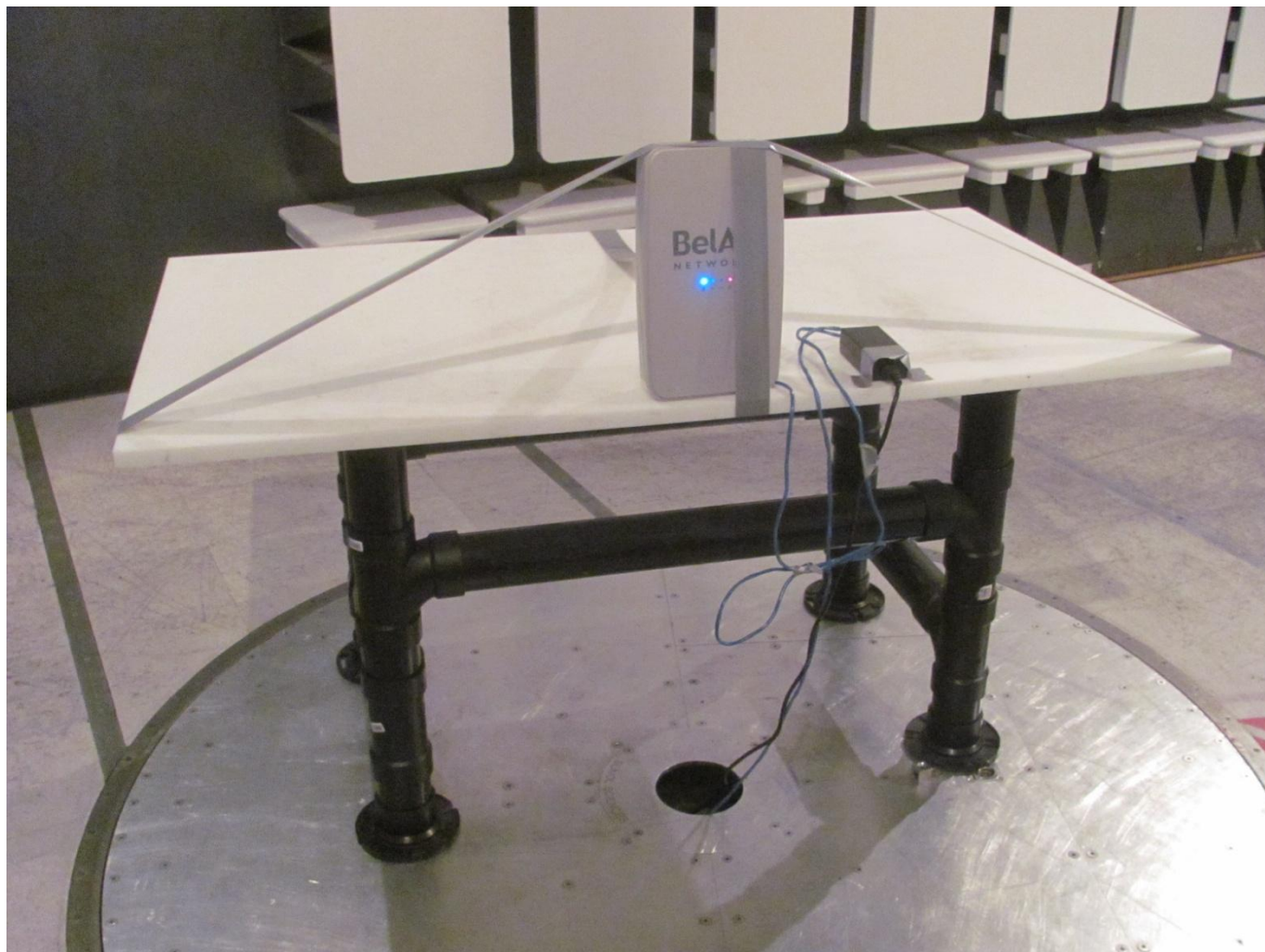


2.2 Conducted emissions set-up



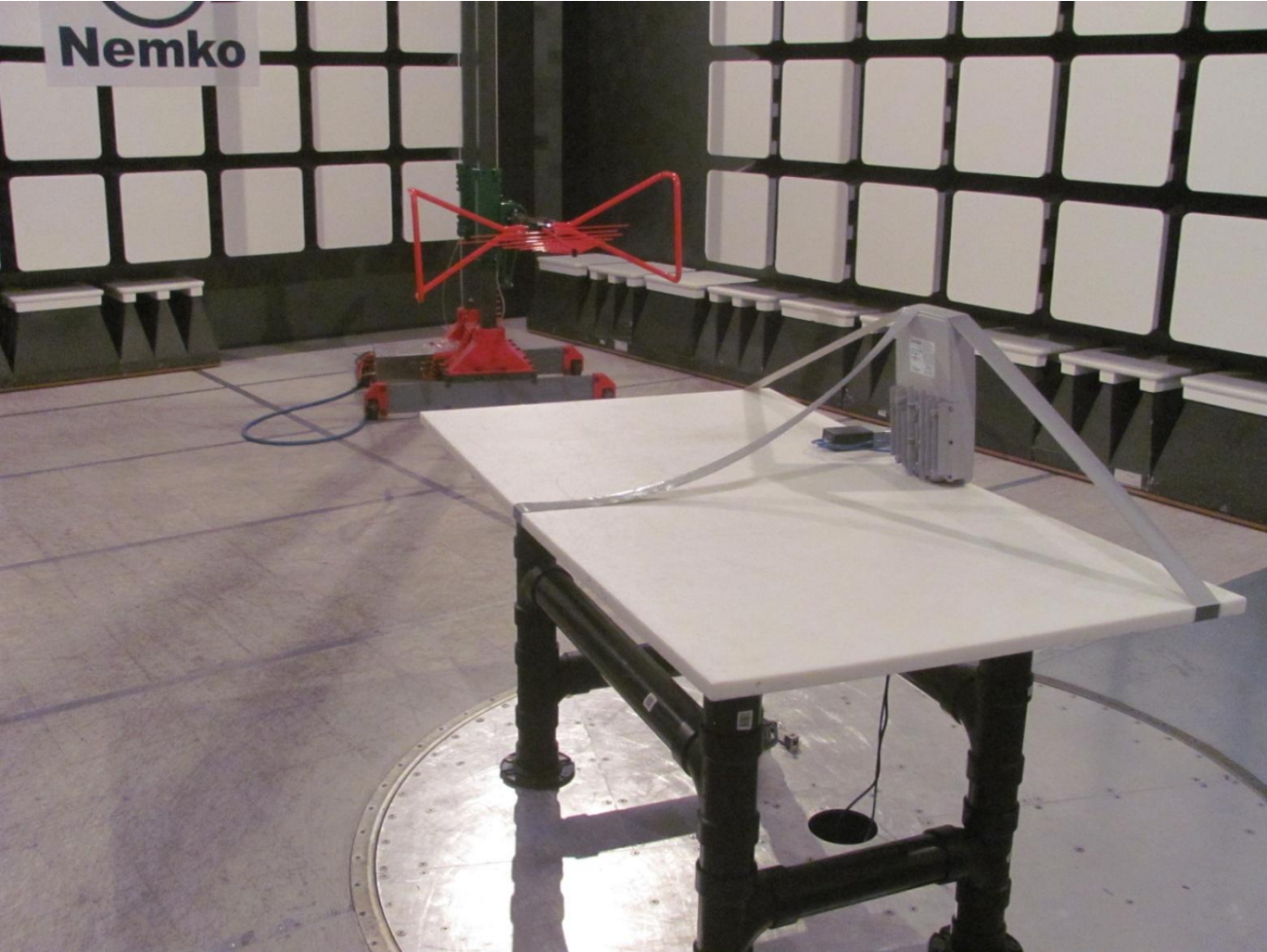
Section 3 Test set-up photographs

3.1 Radiated emissions set-up



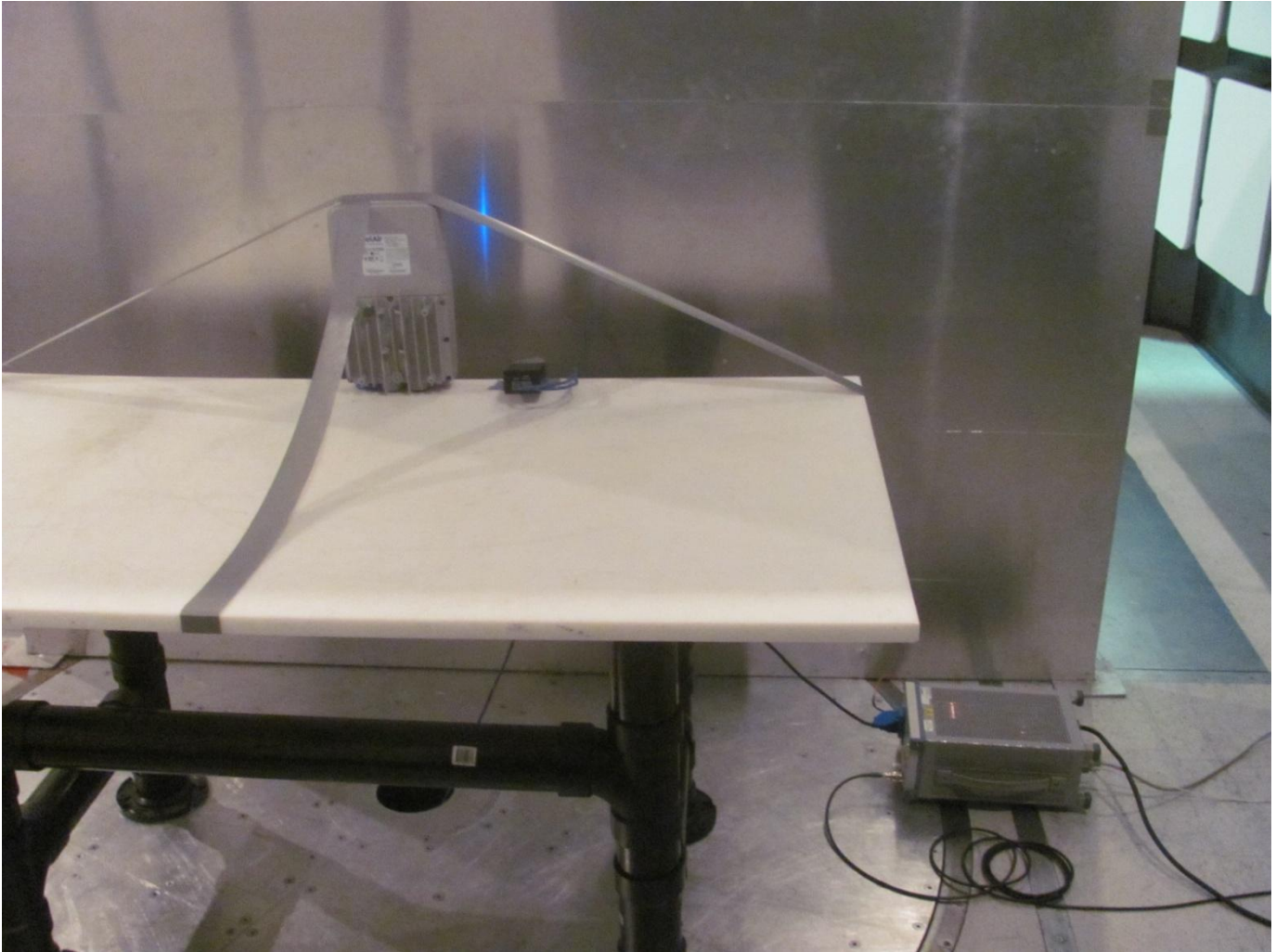
Photograph 3.1-1: Radiated emissions setup

3.1 Radiated emissions set-up, continued



Photograph 3.1-2: Radiated emissions setup

3.2 Conducted emissions set-up



Photograph 3.2-1: Conducted emissions setup

3.1 Conducted emissions set-up, continued



Photograph 3.2-2: Conducted emissions setup