Radiated Emission Test Report

Contents

[1. Test lab facility 2](#_Toc450134220)

[Test Site: 2](#_Toc450134221)

[Facility name: 2](#_Toc450134222)

[Facility address: 2](#_Toc450134223)

[Facility site description: 2](#_Toc450134224)

[Test Standards 2](#_Toc450134225)

[EMC Directive 2014/30/EU 2](#_Toc450134226)

[Test Equipment: 2](#_Toc450134227)

[Environmental conditions: 2](#_Toc450134228)

[Test Operator and Date: 2](#_Toc450134229)

[2. Product Information 3](#_Toc450134230)

[3. EUT setup 3](#_Toc450134231)

[Photograph of EUT: 3](#_Toc450134232)

[4. Test Result 3](#_Toc450134233)

[5. Summary 3](#_Toc450134234)

# Test lab facility

## Test Site:

Facility name: Keysight Technology, Technology Order Fulfillment, Colorado Springs Hardware Test Center.

Facility address: 1900 Garden of the Gods Rd, Colorado Springs, CO. 80907

Facility site description:

3 Meter Semi-echoic chamber.

Note: *The radiated RF disturbance measurements were performed on an alternate test site of a semi–anechoic chamber at a 3 m distance. The 3 m test distance on an alternate test site is allowed because the EUT met the definition of small equipment in clause 3.10 and per clause 8.4 of CISPR 11:2009+A1:2010. The alternate test site semi–anechoic chamber meets the volumetric NSA validation requirements in CISPR 16–1–4 for the ±–4 dB from theoretical at all positions and antenna polarizations in the test volume*. *The limit for 10 meter site is adjusted by 10dB to fit 3 meter site.*

## Test Standards

### EMC Directive 2014/30/EU

IEC 61326-1:2012 / EN 61326-1:2013 (Basic) Radiated Emission Reference Standards:

CISPR 11:2009+A1:2010 / EN 55011:2009+A1:2010 Group 1 Class A. The products were tested in a typical configuration with Keysight Technologies test systems. This product is intended for use in a basic electromagnetic environment.

## Test Equipment:

|  |  |
| --- | --- |
| MXE Receiver Address | USB0::0x0957::0x0f0b::MY51210168::0::INSTR |
| Turn Table Address | gpib8 |
| Antenna Address | gpib9 |
| MXE Model S/N | MXE N9038A MY51210168 |
| MXE Calibration date | 12/8/2015 |
| Turntable SN | ETS Lindrgen Model 2090 MY70235245 |
| Turn Table calibration date | 12/1/2015 |
| Antenna SN | ETS Lindrgen Model 3142E |
| Antenna calibration date | 12/1/2015 |
| System loss calibration date | 4/1/2016 |
| NSA calibration date | 12/1/2015 |
| Test Standard | CISPER 11 Group 1 Class A RE |
| Test Site | Colorado Springs TOF Hardware Test Center 3 Meter anechoic chamber |
| Test Voltage | 110V |

## Environmental conditions:

Temperature: 72°F; Humidity :50 RH

Note: There will be no effect to the result due to changes in mains voltage or frequency.

## Test Operator and Date:

Operator: Clifford; Report generated at: Mar.22,2017 2:15:16 PM

# Product Information

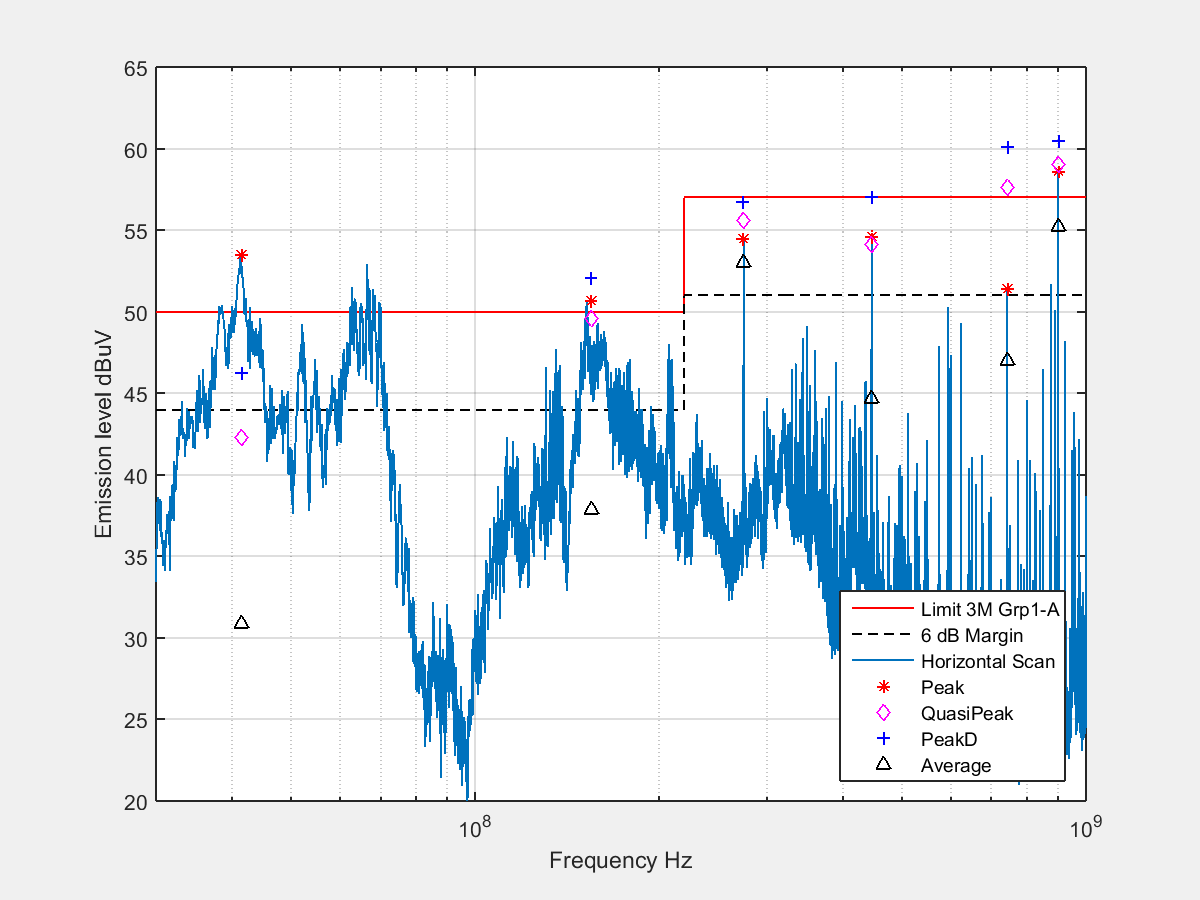
|  |  |
| --- | --- |
| Product Name: | Canvas |
| Product Model: | Canvas Cart |
| Product SN: | No. 15 |
| Project Stage: | Beta 1 |
| Deliver date of the test samples: | 3/22/2017 |
| DUT power: | Powered by BaTTERY |
| Auxiliary equipment list: | n/a |
| Model numbers covered by the test: | N/a |
| .-Hardware Difference | N/a |
| .-Software/firmware difference: | N/a |
| .-Cosmetic difference: | NA |
| Test Configuration |  |

# EUT setup

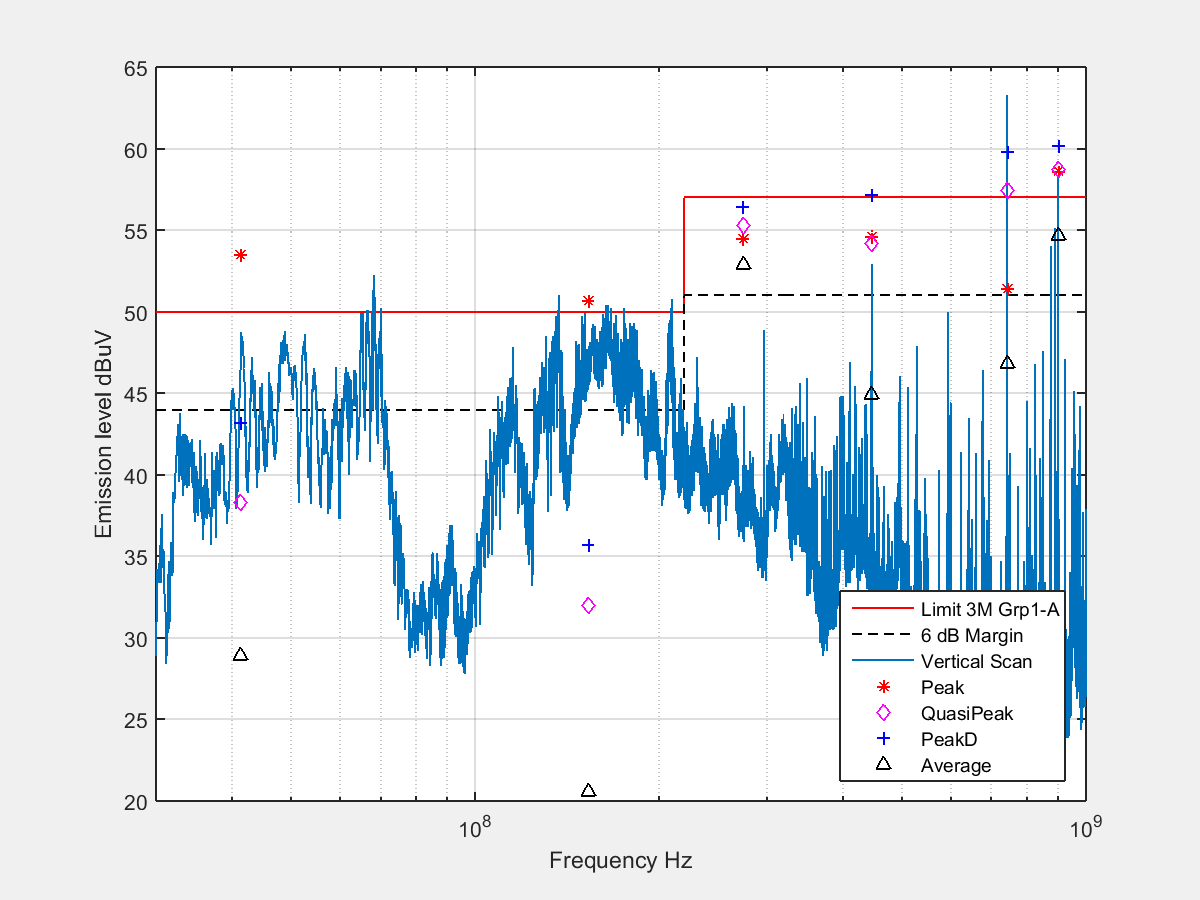
## Photograph of EUT:

# Test Result

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Frequency (Hz) | Amplitude (dBuV) | Turn Table (degree) | Antenna Height (cm) | Polaritzation | QuasiPeak (dBuV) | Peak (dBuV) | Avg (dBuV) | DeltQ (dB) | DeltP (dB) | DeltA (dB) |
| 41385470.0 | 53.5 | 339.0 | 141.0 | Horizontal | 42.3 | 46.3 | 30.9 | -7.7 | -3.7 | -19.1 |
| 154700048.0 | 50.7 | 85.0 | 111.0 | Horizontal | 49.6 | 52.1 | 37.9 | -0.4 | 2.1 | -12.1 |
| 274995105.0 | 54.5 | 81.0 | 100.0 | Horizontal | 55.6 | 56.7 | 53.0 | -1.4 | -0.3 | -4.0 |
| 445497135.0 | 54.6 | 360.0 | 106.0 | Horizontal | 54.1 | 57.0 | 44.7 | -2.9 | 0.0 | -12.3 |
| 742494385.0 | 51.4 | 53.0 | 123.0 | Horizontal | 57.6 | 60.1 | 47.0 | 0.6 | 3.1 | -10.0 |
| 899990878.0 | 58.6 | 307.0 | 156.0 | Horizontal | 59.0 | 60.5 | 55.2 | 2.0 | 3.5 | -1.8 |



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Frequency (Hz) | Amplitude (dBuV) | Turn Table (degree) | Antenna Height (cm) | Polaritzation | QuasiPeak (dBuV) | Peak (dBuV) | Avg (dBuV) | DeltQ (dB) | DeltP (dB) | DeltA (dB) |
| 41255471.0 | 53.5 | 339.0 | 194.0 | Horizontal | 38.3 | 43.2 | 28.9 | -11.7 | -6.8 | -21.1 |
| 153105048.0 | 50.7 | 85.0 | 196.0 | Horizontal | 32.0 | 35.7 | 20.6 | -18.0 | -14.3 | -29.4 |
| 274995105.0 | 54.5 | 81.0 | 181.0 | Horizontal | 55.3 | 56.4 | 52.9 | -1.7 | -0.6 | -4.1 |
| 445497135.0 | 54.6 | 360.0 | 182.0 | Horizontal | 54.2 | 57.1 | 44.9 | -2.8 | 0.1 | -12.1 |
| 742494385.0 | 51.4 | 53.0 | 128.0 | Horizontal | 57.4 | 59.8 | 46.8 | 0.4 | 2.8 | -10.2 |
| 899985878.0 | 58.6 | 307.0 | 178.0 | Horizontal | 58.7 | 60.2 | 54.7 | 1.7 | 3.2 | -2.3 |



# Summary

The unit FAILED the Radiated Emission Test in Horizontal polarization!

The unit FAILED the Radiated Emission Test in Vertical polarization!