Radiated Emission Test Report

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# 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 LIndergen Model 2090 MY70235245 |
| Turtable calibraton date | 12/1/2015 |
| Antenna SN | ETS LIndergen 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: Sep.28,2016 2:28:34 PM

# Product Information

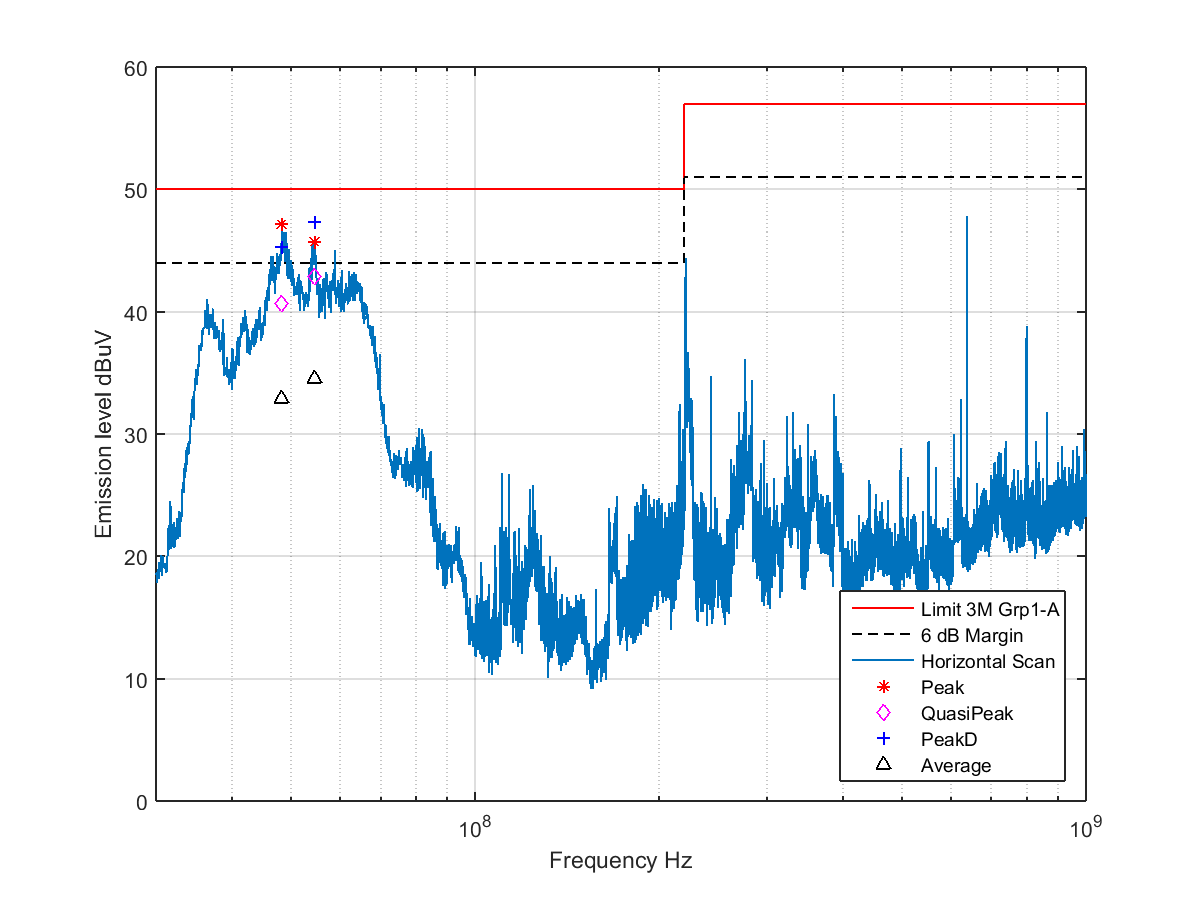
|  |  |
| --- | --- |
| Product Name: | GMax no channel modules |
| Product Model: | Gmax 4 acq cards |
| Product SN: | LP1A-3 |
| Project Stage: | LP1 |
| Deliver date of the test samples: | 9/28/2016 |
| DUT power: | 208V AC |
| Auxiliary equipment list: | HP keyboard and mouse BNC and grounding wire |
| Model numbers covered by the test: | N/A |
| .-Hardware Difference | N/a |
| .-Software/firmware difference: | Bandwidth |
| .-Cosmetic difference: | NA |
| Test Configuration | Full acq speed, display up, plus heavy load, Double choke 0431164181 B4 |

# EUT setup

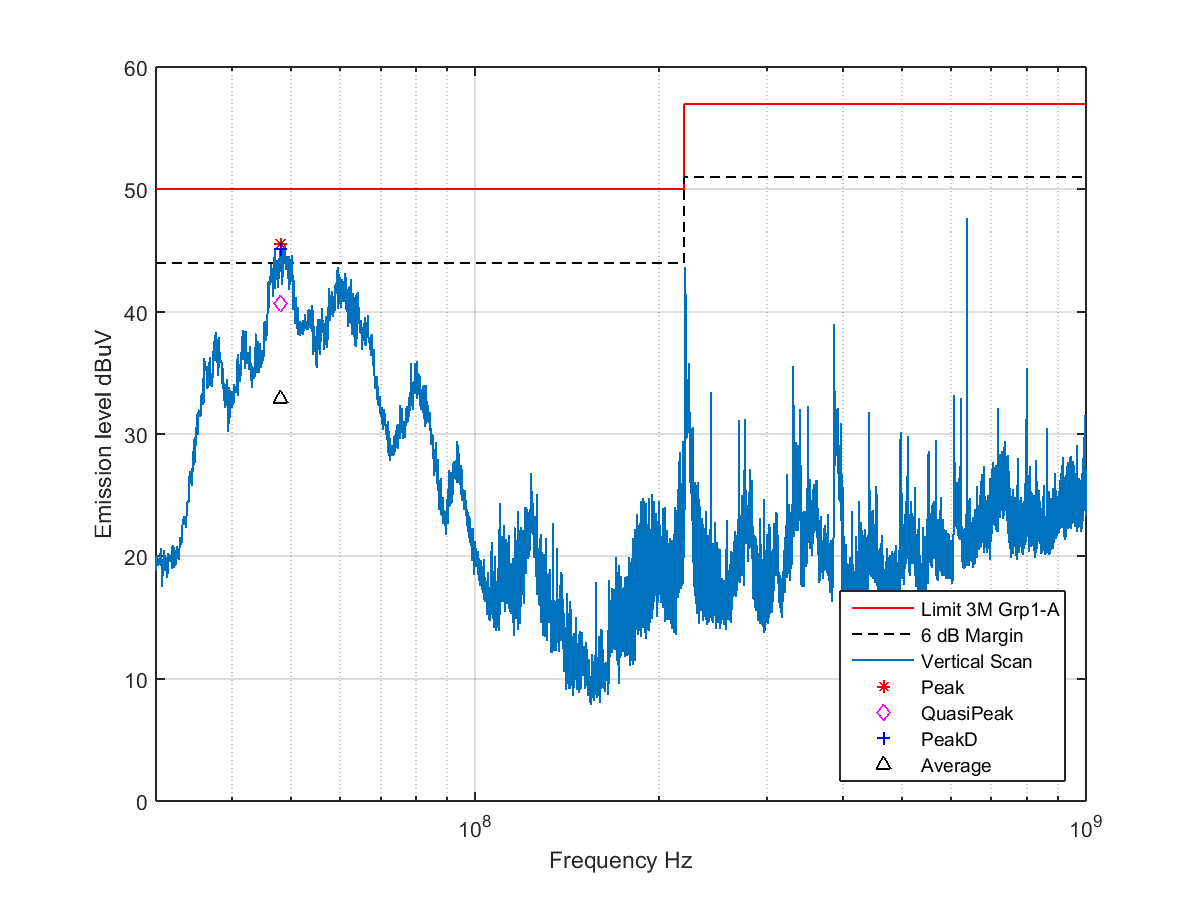
## Photograph of EUT:

# 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) |
| 48220755.0 | 47.1 | 0.0 | 153.0 | Horizontal | 40.7 | 45.3 | 32.9 | -9.3 | -4.7 | -17.1 |
| 54455997.0 | 45.7 | 307.0 | 156.0 | Horizontal | 42.9 | 47.3 | 34.5 | -7.1 | -2.7 | -15.5 |



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Frequency (Hz) | Amplitude (dBuV) | Turn Table (degree) | Antenna Height (cm) | Polaritzation | QuasiPeak (dBuV) | Peak (dBuV) | Avg (dBuV) | DeltQ (dB) | DeltP (dB) | DeltA (dB) |
| 47890779.0 | 45.6 | 4.0 | 150.0 | Vertical | 40.7 | 45.2 | 32.9 | -9.3 | -4.8 | -17.1 |



# Summary

The unit Passed the Radiated Emission Test in Horizontal polarization!

The unit passed the Radiated Emission Test in Vertical polarization!