

5. AC POWER LINE CONDUCTED EMISSIONS

5.1. TEST CONDITIONS

Test performed by : Laurent DENEUX
Date of test : January 25, 2019
Ambient temperature : 21 °C
Relative humidity : 50 %

5.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013) method. The EUT is placed on the ground reference plane, at 80cm from the LISN. The distance between the EUT and the vertical ground plane is 40cm. Auxiliaries are powered by another LISN. The cable has been shorted to 1meter length. The EUT is powered through the LISN. Measurement is made with a receiver in peak mode. This was followed by a Quasi-Peak, i.e. CISPR measurement for any strong signal. If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary. The LISN (measure) is $50\Omega / 50\mu\text{H}$. Interconnecting cables and equipment's were moved to position that maximized emission.



Photograph for Power Line Conducted Emissions (DC Mode)



Photograph for Power Line Conducted Emissions (DC Mode)



Photograph for Power Line Conducted Emissions (**POE Mode**)



Photograph for Power Line Conducted Emissions (POE power supply)

6. FIELD STRENGTH OUTSIDE OF THE BANDS 13.110-14.010 MHZ

6.1. TEST CONDITIONS

Test performed by : Laurent DENEUX
Date of test : January 22, 2019 to January 28, 2016
Ambient temperature : 19 to 21 °C
Relative humidity : 47 to 50 %

6.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013).

Test is performed in parallel, perpendicular and ground parallel axis with a loop antenna below 30MHz. Measurement bandwidth was 200Hz below 150kHz and 9kHz between 150kHz & 30MHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height was 1m. The EUT is placed **on an open area test site**. Distance between measuring antenna and the EUT is **3m**.

Test is performed in horizontal (H) and vertical (V) polarization with **bilog** between 30MHz & 1GHz and with a horn antenna above 1GHz. Measurement bandwidth was 120kHz below 1GHz and 1MHz above 1GHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height search was performed from 1 to 4m. The EUT is place at 1.5m high above 1GHz and at 0.8m high under 1GHz. The EUT is placed **on an open area test site** above 1GHz and **on an open area test site** from 30MHz to 1GHz. Distance between measuring antenna and the EUT is **10m**.



Photograph for Field strength outside of the bands 13.110-14.010 MHz



Photograph for Field strength outside of the bands 13.110-14.010 MHz

7. FIELD STRENGTH WITHIN THE BAND 13.110-14.010MHz

7.1. TEST CONDITIONS

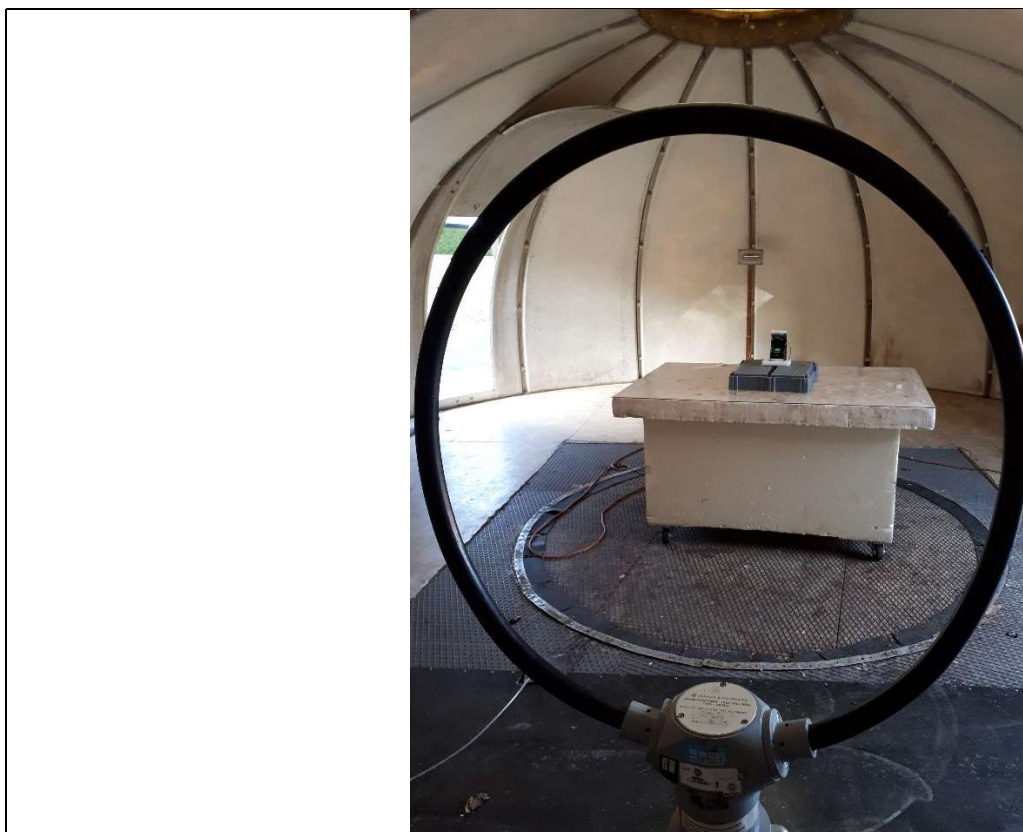
Test performed by : Laurent DENEUX
Date of test : January 28, 2019
Ambient temperature : 11 °C
Relative humidity : 47 %

7.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013). The EUT is placed **on an open area test site**. Distance between measuring antenna and the EUT is **3m**.

Test is performed in parallel, perpendicular and ground parallel axis with a loop antenna below 30MHz. Measurement bandwidth was 200Hz below 150kHz and 9kHz between 150kHz & 30MHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height was 1m.

The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height search was performed from 1 to 4m. The EUT is placed at 0.8m.



Photograph for Field strength within the band 13.110-14.010MHz