# **EMC Services**



### Description

In addition to our software and hardware engineering services, StreamUnlimited is offering its full EMC facilities and expertise to external customers.



### **Our EMC Services**

- EMC consultancy also at customer's location.
- <u>Product architecture EMC review</u>: Identify potential EMC issues already in the early stage of development; Define solutions upfront to avoid costly and time consuming debugging.
- <u>Product/board development support</u>: Define ground and supply topology and decoupling, optimize layer stackup and routing of high speed buses to achieve compliance and fulfill technical specification at lowest cost.
- <u>EMC debugging</u>: Analysis and fixing of issues
- <u>Pre-approbation measurements</u> to ensure that formal approbation is passed smoothly and with short throughput time at low budget costs
- <u>Product certifications</u> in cooperation with notified bodies/external test houses
- <u>Product lifecycle support</u>: Ensure that legal and quality requirements are fulfilled during product lifecycle, check impact of process variations or design changes.

### Measurements of products and modules

- active radiation: free field (3m) and conducted radiation
- passive radiation: susceptibility to external electrical fields
- ESD (electrostatic discharge) measurements, mains interruption and spikes
- self pollution (internal disturbance of modules, e.g. analog or digital radio or TV parts)
- GSM immunity
- Wi-Fi (WLAN) compliance measurements





## EMC Services (cont.)



## **Supported standards**

- Active and passive radiation standards
- Audio and Video: EN 55013, EN 55020
- Internal EMC (self pollution) self and customer defined methods and limits

- Information Technology Equipment: EN 55022, EN 55024
- Industrial/Scientific/Medical: EN 55011 and collateral standards
- Household appliances and similar devices: EN 55014-1, EN 55014-2
- Electrical lighting and similar equipment: EN 55015
- Automotive (vehicles): CISPR 12, ISO 11451, ISO 11452, (partial or substitutional methods), CISPR 25, ISO 10605
- Generic equipment: EN 50081, EN 50082
- Wireless cards and equipment: ETSI norms
- For all equipment:
  - Mains harmonics, voltage fluctuations and flicker
  - Equipment for USA and Canada: FCC 15

### **Our Test-Equipment and Test-Harnesses**

- Dedicated measurement setups and equipment for all above mentioned standards
- 20m<sup>2</sup> pre-compliance absorber chamber for radiated and immunity measurements
- 5x2.5m2 shielded room for various legal measurements
- Equipment up to 7 GHz for ETSI wireless module and product measurements
- Special (quick) substitution probes for precompliance measurements
- Automated measurements and reporting (GPIB equipment, LabVIEW, etc.)



## **Further information**

StreamUnlimited Engineering GmbH Gutheil-Schoder-Gasse 10 1100 Vienna, Austria Phone: +43 1 667 2002 4014 E-mail: sales@streamunlimited.com http://www.streamunlimited.com

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