

EMCIA, Eddystone Court, De Lank, St.Breward, Bodmin PL30 4NQ

## PLT-Interference Range Contest

### 1) Objectives;

To conduct EMC testing of Power-Line Adaptors in their installed configuration at a statistically-significant number of sites so as to help determine interference probability as defined in CISPR16-4-1; 2003.

To provide EMC test data from a **single** emission source that is relevant both to such a single source and by extrapolation to the cumulative effect of many such sources, so as to facilitate the analysis and presentation of information about the interference probability of installations of PLT equipment. (PLT is elsewhere known as PLC or BPL).

*For the convenient measurement of interference emission without the use of laboratory-grade equipment these objectives are to be met by exploration of the distance of detection of the interference emissions from a single installation of Power Line Adaptors (PLAs).*

### 2) Rules

a) Eligible devices must be Power Line Adaptors (PLAs) that are, or have been at some time since January 2008, available to the UK consumer. They must be intended for indoor data networks or video transmission. Eligible devices include but are not limited to Comtrend, BTVision, and Belkin PLAs. Some sources of technical background on the technical characteristics of these devices are listed in the Annexe to these rules.

b) Entrants are to demonstrate the detection of interference emission from a *single* installation comprising 2 to 4 eligible PLAs at the greatest possible distance. There will be two awards;

\* **LDX; The “long-distance” prize.** In choosing the winner of this the judges will also take account of the Contest Objectives and technical excellence.

\* **MTY; The “most typical” prize.** This will be awarded to the entrant whose detection distance is closest to the arithmetic average of the detection distances of all accepted entries.

c) The PLT installation must be in an inhabited dwelling within the UK. The mains wiring of this dwelling, and all apparatus connected to it, must be representative of normal domestic practice. The PLAs must be connected to this wiring and draw its power therefrom.

d) Any form of receiving equipment and receiving antenna may be used, and reception may be at any frequency that the receiver may legally use. The receiving apparatus may be in any location *except* land or aeronautical mobile.

e) Confirmation of the detection and the identity of the source must be demonstrated unequivocally. If this is achieved by switching or plugging/unplugging operations at the installation site then such operations must be ones reasonably occurring in such a location. However, notwithstanding rule c) it is acceptable to automate such operations for convenience of identification.

f) Entries must be accompanied by confirmation on the entry form by an independent witness. The witness shall have sufficient technical competence to understand what is being done, and be prepared to answer subsequent questions from the organisers.

g) Entries must be made on the official form, and all but the optional boxes must be filled in.

- h) Entrants must be prepared to provide the organisers with sketches/maps of their demonstration if so requested.
- j) Entrants must be prepared to repeat their measurements (but not necessarily using the same serial nos. of PLA) in the presence of a representative of the organisers if so requested. Such requests will be rare.
- k) It is permitted for a single set of PLAs to feature in more than one competition entry provided that each entry is for a PLT installation at a different location.
- m) The organisers will have the right to use the material that is submitted in any way that is consistent with the stated objectives.
- n) Members of the EMC Industries Association are welcome to enter but will not be eligible for prizes.
- p) Entries must be received by the organisers by email to [emcia@emcia.org](mailto:emcia@emcia.org) by **Monday 6th September 2010**,
- q) The organisers reserve the right to amend these rules. Such amendment will be advised only by the updating of the version at <http://www.emcia.org/news.aspx>

### 3) Prizes

The First prize in *each* of the LDX and MT classes will be a VR120 Scanner receiver donated by **Yaesu (UK)**.

Runners-up will receive bound *and autographed* copies of the “Greedy PLT” booklet published by Nutwood UK Ltd.

At least one entrant will be invited to assist with an exhibit on the EMCIA Stand at EMC-UK 2010 (Newbury, Berks., 12/13 October 2010.)

### 4) Annexe; Additional information

\* The latest version of this rules document, the entry form, and the press release describing this contest are at <http://www.emcia.org/news.aspx>.

\* A special panel on the home page at <http://www.theemcjournal.com> carries links to the above documents, technical support and in-depth information about PLT.

12th May 2010