LBDS meeting minutes

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Agenda

https://indico.cern.ch/event/871176/

Grounding

• Measurements in JU3 with clamping ferrites, doesn’t show big effect; can’t get inside PLC, which is definitely better, need smaller dimensions; measurements with new ferrites to be continued;

• Tunnel measurements on B2 show clear improvement of NC, factor 3-4 reduced noise; difference in generators most likely since cable connectors might be damaged

• new design of cable connectors by Pavlina, measured and validated by Janusz; improvement in robustness still discussed (Viliam to check with Pavlina); if new design is agreed upon, go directly for production without testing since we don’t expect to learn from these tests

• NC offer, Vacuumschmelze changed min order, would need to buy 800 instead of 400 needed (8 per generator + reserve for MKBs) → prepare DA and pass it to the CERN procurement office to negotiate the deal (Viliam)

PTM update

• upgrade from driver board v3 to v4; needed for capacitors, helps also to reduce CM current; some signals more noisy however; to be concluded inside EC

• burnt charging resistor: fault could be reproduced on test bench, however not possible to find resistor with pulsed power specs, in contact with
company; recommendation to check HVR; question if system can be stress-tested for validation?

**MKBV capacitors**

- Being tested by Viliam to answer question if capacitors get unstable at high energy and order of 110 kCHF needed (spares needed definitely)
- no detrimental effect when pulsing up to 7 TeV, now going up to 7.5 TeV; then repeat test for second generator (Viliam)
- Yann studied if using same period for H and V makes difference, concluded that the increase in period is negligible for the pattern; phase shift between H and V to be studied, if improvement on pattern (Yann)
- when test is finished on Thursday, generator can be used for PTC test; replacement of the generator can then be done next year

**Situation over Christmas**

- No system shall be pulsing, not in the tunnel nor in the lab
- EC can stop ongoing tests remotely - consignation not required