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Configuration of power chips for the TileCoM for Phase-II Upgrades at CERN.

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The Large Hadron Collider (LHC) has four main experiments along the ring. The ATLAS (A Toroidal LHC Apparatus) experiment along with the other three experiments enables the physicists to analyze collected data. The Large Hadron Collider needs to be upgraded to a High Luminosity Large Hadron Collider (HL-LHC) to account for the increase in luminosity and to enable physicists to explore phenomena beyond the standard model. South Africa contributes to the upgrade of the LHC. The contribution involves the production of the GbE switch and TileCOM Printed Circuit Board (PCB) which connects the Phase-II upgrade electronic chain to the network to monitor and allow for data transmission at high speeds. As part of the production, components such as TPS65086100 are required to be configured before the population on the TileCoM PCB. This research paper illustrates the methodology followed to configure power chips (TPS65086100) and the plot results in terms of regulated voltage and currents.

Apply to be considered for a student ; award (Yes / No)?

No

Level for award;(Hons, MSc, PhD, N/A)?

N/A

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