Recent Progress in Superconductive Digital Electronics Part I

Western Contributions (Overview of the Special Section of IEICE Transactions on Electronics, vol. E91-C, No. 3, March 2008)

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Abstract- This overview (Part I) contains highlights of articles contributed by western authors to the Special Section of IEICE Transactions on Electronics, vol. E91-C (March 2008). Included are reflections on how to bring superconductive digital electronics (SDE) to the market place, a global overview of past, present and future of SDE, a view on SDE (termed fluxonics) and superconductive electronics effort in Europe, and two status reports: (1) on RSFQ (Rapid Single Flux Quantum) baseband digital processing for wireless telecommunication, and (2) on superconductor digital-RF receiver systems. Conclusions endorsed by all authors summarize the status of SDE technology, and directions of work still needed for its technical and economic fruition.

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