

Predictable data communication interface for hard real-time systems

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ABSTRACT

This paper presents a data communication interface specifically designed to sustain the predictable operation of hard real-time systems. The general interface architecture, data format and communication protocols are discussed, along with a case study - the full-duplex SPI (serial peripheral interface) for the HARETICK kernel. Some of the most interesting experimental results are also presented.

INDEX TERMS

- **INSPEC**

- **Controlled Indexing**

- data communication , peripheral interfaces , protocols

- **Non Controlled Indexing**

- HARETICK kernel , communication protocols , data communication interface , data format , full-duplex serial peripheral interface , general interface architecture , hard real-time systems

- **Author Keywords**

- Data communication , HARETICK , SPI , hard real-time , predictability