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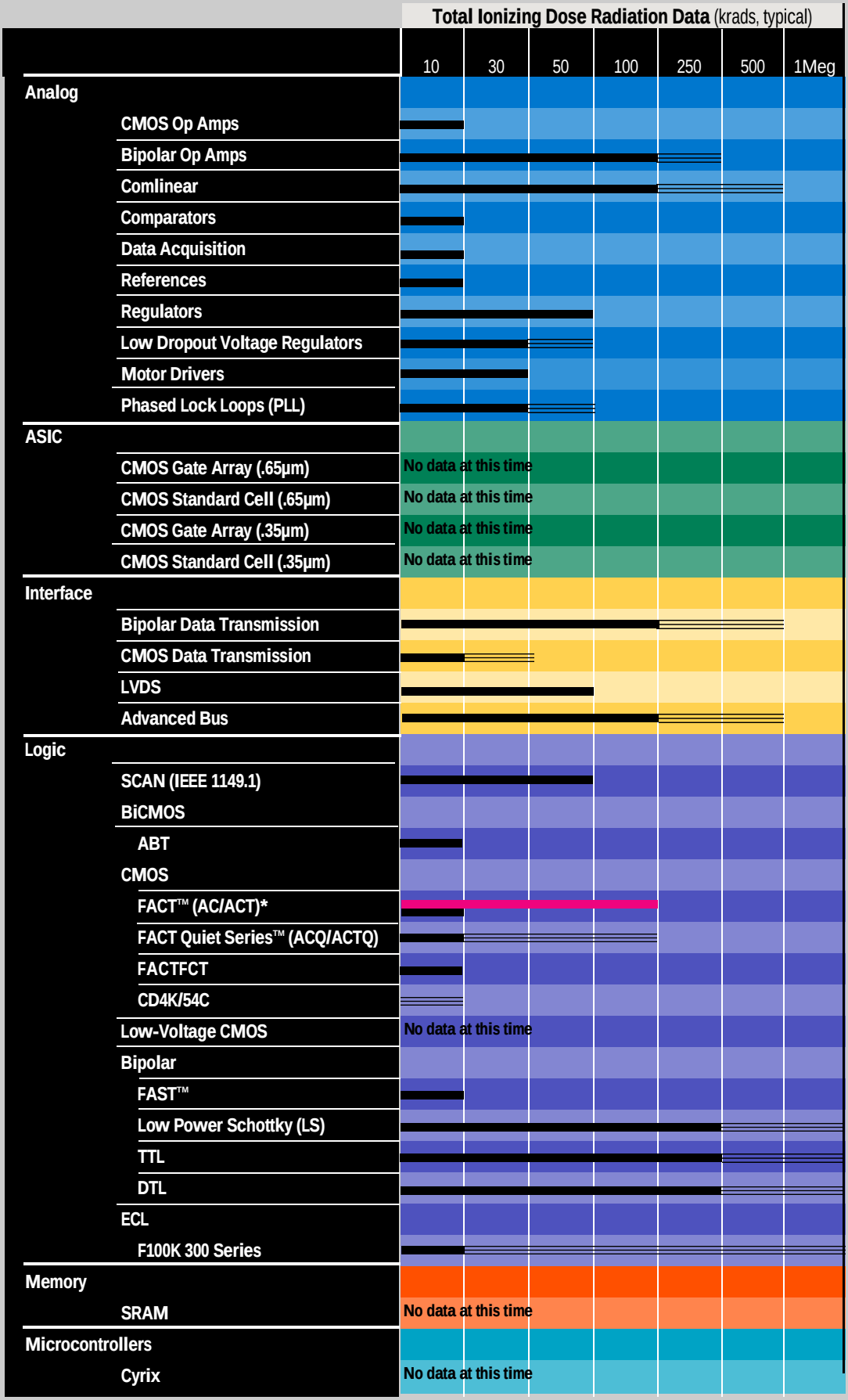

* FACT products qualified as JAN S "R"/QML V "R", JAN B "R"; meets 100krads

Radiation tolerance varies by function and wafer lot

FACT RHA products qualified to 100krads ("R")

This manual is designed to assist individuals who work in the field of radiation effects and component hardening, reliability, testing, and evaluation. Much of the information in this manual is the result of hard work by scientists and engineers throughout the world who search for accurate information. However, as accurate as this information is now, the radiation-hardened field continues to evolve as researchers make new discoveries. These discoveries are driven by better understanding of the radiation environments, use of new materials and new technologies, and by the increased complexity of new products and system design.

In the United States, many important investigative projects in the radiation field have been sponsored by government agencies, national laboratories, and the military services. These specialized projects have yielded significant information from which to gain future radiation expertise. Also contributing to the foundation of radiation knowledge are the significant contributions made by universities, their involved professors, and their young and inquisitive graduate students. Users and manufacturers of radiation-hardened circuits, systems, and components also advance our knowledge. By understanding the need to improve our data base with practical experience, this group contributes greatly in application, manufacturing, and processing expertise.

As a manufacturer of radiation-tolerant products, National Semiconductor is committed to the military/aerospace industry and its use of radiation-hardened assured product. To this end, National continues to support and expand the knowledge base through experimentation and investigation of innovative and promising new ideas and by applying the successful ones to new products where appropriate.

We dedicate this Radiation Owner's Manual to all of those who contribute so much of their time and effort to the radiation effects knowledge base.

Mike Maher
Editor

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(continued)

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