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Nota di contenuto	Front Cover; The Definitive Guide to the ARM Cortex-M0; Copyright; Contents; Foreword; Preface; Acknowledgments; Conventions; Terms and Abbreviations; Chapter 1 Introduction; Why Cortex-M0?; Application of the Cortex-M0 Processors; Background of ARM and ARM processors; Cortex-M0 Processor Specification and ARM Architecture; ARM Processors and the ARM Ecosystem; Getting Started with the Cortex-M0 Processor; Organization of This Book and Resources; Chapter 2 Cortex-M0 Technical Overview; General Information on the Cortex-M0 Processor; The ARM Cortex-M0 Processor Features Advantages of the Cortex-M0 ProcessorLow-Power Applications; Cortex-M0 Software Portability; Chapter 3 Architecture; Overview; Programmer's Model; Memory System Overview; Stack Memory Operations; Exceptions and Interrupts; Nested Vectored Interrupt Controller (NVIC); System Control Block (SCB); Program Image and Startup Sequence; Chapter 4 Introduction to Cortex-M0 Programming; Introduction to Embedded System Programming; Inputs and Outputs; Development Flow; C Programming and Assembly Programming; What Is in a Program Image?; C Programming: Data Types; Accessing Peripherals in C Cortex Microcontroller Software Interface Standard (CMSIS)Benefits of

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Sommario/riassunto

* Provides engineers with a thorough understanding of how the architecture works by giving detailed information on the processor architecture, including programmer's model instruction set and interrupt handling * Many examples of programming the Cortex-M0, in both C language and assembly language, gives engineers the 'up-and-running' they are looking for, quickly * Information on the software development flow including examples from various development tools for optimum efficiency * Information regarding software porting from other processor architectures including othe