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ISBN	1-63081-244-7
Descrizione fisica	1 online resource (309 pages)
Collana	Artech house remote sensing series
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Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	This comprehensive new resource analyzes sources of noise and clutter that magnetic sensing system developers encounter. This book guides practitioners in designing and building low noise and low power consumption magnetic measurement systems. Various examples of magnetic surveillance and survey systems are provided. This book enables system designers to obtain an all-inclusive spectral understanding of typical sources of noise and clutter present in the system and environment for each application, in order to successfully design stable and sensitive low power magnetic sensing devices. Detection and localization methods are explored, as well as deterministic and heuristics algorithms which are an integral part of any magnetic sensing system. This book is aimed to eliminate some of the "black magic" manipulations present during low noise magnetic measurements. The book meticulously describes, analyzes and quantifies the variables that affect low noise measurement systems. Readers are able to understand sources of measurements irregularities and how to effectively mitigate them. Moreover, this book also presents low power magnetometers and dedicated low noise sampling techniques.