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Titolo	Practical RF system design / / William F. Egan
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Descrizione fisica	1 online resource (xxv, 386 pages) : illustrations
Disciplina	621.38412
Soggetti	Radio circuits - Design and construction Radio frequency
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Gain -- Noise figure -- Nonlinearity in the signal path -- Noise and nonlinearity -- Architectures that improve linearity -- Frequency conversion -- Contaminating signals in severe nonlinearities -- Phase noise.
Sommario/riassunto	The ultimate practical resource for today's RF system design professionals Radio frequency components and circuits form the backbone of today's mobile and satellite communications networks. Consequently, both practicing and aspiring industry professionals need to be able to solve ever more complex problems of RF design. Blending theoretical rigor with a wealth of practical expertise, Practical RF System Design addresses a variety of complex, real-world problems that system engineers are likely to encounter in today's burgeoning

communications industry with solutions that are not easily available in the existing literature. The author, an expert in the field of RF module and system design, provides powerful techniques for analyzing real RF systems, with emphasis on some that are currently not well understood. Combining theoretical results and models with examples, he challenges readers to address such practical issues as:

- * How standing wave ratio affects system gain
- * How noise on a local oscillator will affect receiver noise figure and desensitization
- * How to determine the dynamic range of a cascade from module specifications
- * How phase noise affects system performance and where it comes from
- * How intermodulation products (IMs) predictably change with signal amplitude, and why they sometimes change differently

An essential resource for today's RF system engineers, the text covers important topics in the areas of system noise and nonlinearity, frequency conversion, and phase noise. Along with a wealth of practical examples using MATLAB(r) and Excel, spreadsheets are available for download from an FTP Web site to help readers apply the methods outlined in this important resource.
