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within measurement systems. The text gives an integrated treatment of systematic and random errors, statistical data analysis and calibration procedures, and discusses such developments as the use of fibre optics

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and instrumentation networks.

This book provides a fundamental and practical introduction to radio frequency and microwave engineering and physical aspects of wireless

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communication In this book, the author addresses a wide range of radio-frequency and microwave topics with emphasis on physical aspects including EM and voltage waves, transmission lines, passive circuits, antennas,

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radio wave propagation. Up-to-date RF design tools like RF circuit simulation, EM simulation and computerized smith charts, are used in various examples to demonstrate how these methods can be applied

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effectively in RF engineering practice. Design rules and working examples illustrate the theoretical parts. The examples are close to real world problems, so the reader can directly transfer

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the methods within the context of their ownwork. At the end of each chapter a list of problems is given inorder to deepen the reader's understanding of the chaptermaterial and practice the new

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competences. Solutions are available on the author's website. Key Features:

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antennas Uses various examples of modern RF tools that show how the methods can be applied productively in RF engineering practice Incorporates various design examples using circuit and electromagnetic (EM)

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Discusses the propagation of waves: their representation, their effects, and their utilization in passive circuits and antenna structures Provides a list of problems at the end

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of each chapter Includes an accompanying website containing solutions to the problems (http://www.fh-dortmund.de/gustrau_rf_textbook) This will be an invaluable textbook for bachelor and masters students

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