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Transformation and Generalized Signals; 2.3.1 Definitions and Properties; 2.3.2 Parseval's Theorem and Energy Spectra; 2.3.3 Correlation Functions; 2.3.4 The Unit Impulse and Generalized Signals; 2.3.5 The Impulse Response and System Function; 2.3.6 Periodic Signals; 2.3.7 The Uncertainty Principle; 2.4 The Laplace Transform and Analog Systems; 2.4.1 The Complex Frequency; 2.4.2 Properties of the Laplace Transform; 2.4.3 The System Function
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5.5.1 The Exact Linear Phase Property

Sommario/riassunto

This book provides a balanced account of analog, digital and mixed-mode signal processing with applications in telecommunications. Part I Perspective gives an overview of the areas of Systems on a Chip (Soc) and mobile communication which are used to demonstrate the complementary relationship between analog and digital systems. Part II Analog (continuous-time) and Digital Signal Processing contains both fundamental and advanced analysis, and design techniques, of analog and digital systems. This includes analog and digital filter design; fast Fourier transfor