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Nota di contenuto	Software VNA and Microwave Network Design and Characterisation; Contents; Foreword; Preface; 1 Introduction to Network Analysis of Microwave Circuits; 1.1 One-Port Network; 1.1.1 Total Voltage and Current Analyses; 1.1.2 Transmission-Reflection Analysis; 1.1.2.1 Voltage and current; 1.1.2.2 Reflection coefficient; 1.1.2.3 Power; 1.1.2.4 Introduction of a1 and b1; 1.1.2.5 Z in terms of; 1.1.3 Smith Chart; 1.1.3.1 Impedance chart; 1.1.3.2 Admittance chart; 1.1.4 Terminated Transmission Line; 1.2 Two-Port Network; 1.2.1 Total Quantity Network Parameters 1.2.2 Determination of Z, Y and ABCD Parameters1.2.3 Properties of Z, Y and ABCD Parameters; 1.2.4 Scattering Parameters; 1.2.5 Determination of S-Parameters; 1.2.6 Total Voltages and Currents in Terms of a and b Quantities; 1.2.7 Power in Terms of a and b Quantities; 1.2.8 Signal Flow Chart; 1.2.9 Properties of S-Parameters; 1.2.10 Power Flow in a Terminated Two-Port Network; 1.3 Conversions

Between Z, Y and ABCD and S-Parameters; 1.4 Single Impedance Two-Port Network; 1.4.1 S-Parameters for Single Series Impedance; 1.4.2 S-Parameters for Single Shunt Impedance; 1.4.3 Two-Port Chart  
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1.7 Scattering Matrix of Microwave Circuits Composed of One-Port and Multi-Port Devices 1.7.1 S-Parameters of a Multi-Port Device; 1.7.2 S-Parameters of a Microwave Circuit; References; 2 Introduction to Software VNA; 2.1 How to Install; 2.2 The Software VNA; 2.3 Stimulus Functions; 2.4 Parameter Functions; 2.5 Format Functions; 2.6 Response Functions; 2.7 Menu Block; 2.7.1 Cal; 2.7.2 Display; 2.7.3 Marker; 2.7.4 DeltaM; 2.7.5 Setting; 2.7.6 Copy; 2.8 Summary of Unlabelled-Key Functions; 2.9 Preset; 2.10 Device Under Test; 2.10.1 Device; 2.10.2 Circuit; 2.11 Circuit Simulator  
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3.9 Ideal Two-Port Components: Attenuator/Gain Block

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## Sommario/riassunto

Advances in computer technology and in the development of modern microwave test instruments over the past decade have given electrical engineers, researchers and university students a number of new approaches to study microwave components, devices and circuits. Vector network analyser (VNA) is a valuable tool for providing fast and accurate characterisation of microwave components and devices for other circuits working at high frequencies. This book together with associated software serves as an introduction to microwave network analysis, microwave components and devices, and microwave circu

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