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Nota di contenuto	The Six-Port Technique with Microwave and Wireless Applications; Contents; Chapter 1 Introduction to the Six-Port Technique; 1.1 MICROWAVE NETWORK THEORY; 1.1.1 Power and Reflection; 1.1.2 Scattering Parameters; 1.2 MICROWAVE CIRCUITS DESIGN TECHNOLOGIES; 1.2.1 Microwave Transmission Lines; 1.2.2 Microwave Passive Circuits; 1.2.3 Fabrication Technologies; 1.2.3.1 Microwave Solid State Devices; 1.2.3.2 MIC Technology; 1.2.3.3 MHMIC Technology; 1.2.3.4 MMIC Technology; 1.3 SIX-PORT CIRCUITS; 1.3.1 Microwave Network Measurements; 1.3.2 Wireless Applications; 1.3.3 Microwave Applications ReferencesChapter 2 Six-Port Fundamentals; 2.1 ANALYSIS OF SIX- PORT REFLECTOMETERS; 2.2 LINEAR MODEL; 2.3 QUADRATIC MODEL; 2.4 SIX- TO FOUR-PORT REDUCTION; 2.5 ERROR BOX PROCEDURE CALCULATION; 2.6 POWER FLOW MEASUREMENTS; 2.7 SIX-PORT REFLECTOMETER WITH A REFERENCE PORT; 2.8 MEASUREMENT ACCURACY ESTIMATION; References; Chapter 3 The Design of Six-Port Junctions; 3.1 DESIGN CONSIDERATION FOR SIX-PORT JUNCTIONS; 3.2 WAVEGUIDE SIX-PORT JUNCTIONS; 3.3 FREQUENCY COMPENSATED OPTIMAL SIX-PORT JUNCTIONS; 3.4 FREQUENCY COMPENSATED QUASI-

OPTIMAL SIX-PORT JUNCTIONS

3.5 A SIX-PORT JUNCTION BASED ON A SYMMETRICAL FIVE-PORT RING JUNCTION
3.6 HIGH POWER SIX-PORT JUNCTION IN HYBRID WAVEGUIDE/STRIPLINE TECHNOLOGY;
3.7 WORST-CASE ERROR ESTIMATION; References;
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Sommario/riassunto

One of the main issues in microwave and wireless system design is to ensure high performance with low cost techniques. The six-port technique helps allow for this in critical network design areas. This practical resource offers you a thorough overview the six-port technique, from basic principles of RF measurement based techniques and multiport design, to coverage of key applications, such as vector network analyzers, software defined radio, and radar. The first book dedicated to six-port applications and principles, this volume serves as a current, one-stop guide offering you cost-effective solutions for your challenging projects in the field.
