Phased Array Antennas
An in-depth treatment of array phenomena and all aspects of phased array analysis and design. Phased Array Antennas, Second Edition is a comprehensive reference on the vastly evolving field of array antennas. The Second Edition continues to provide an in-depth evaluation of array phenomena with a new emphasis on developments that have occurred in the field over the past decade. The book offers the same detailed coverage of all practical and theoretical aspects of phased arrays as the first edition, but it now includes:  

- New chapters on array-fed reflector antennas; connected arrays; and reflect arrays and retrodirective arrays  
- Brand-new coverage of artificial magnetic conductors, and Bode matching limitations  
- A clear explanation of the common misunderstanding of scan element pattern measurement, along with appropriate equations  
- In-depth coverage of finite array Gibbsian models, photonic feeding and time delay, waveguide simulators, and beam orthogonality  

The book is complemented with a multitude of original curves and tables that illustrate how particular behaviors were derived from the author’s hundreds of programs developed over the past forty years. Additionally, numerous computer design algorithms and numerical tips are included throughout the book to help aid in readers’ comprehension. Phased Array Antennas, Second Edition is an ideal resource for antenna design engineers, radar engineers, PCS engineers, and communications engineers, or any professional who works to develop radar and telecommunications systems. It also serves as a valuable textbook for courses in phased array design and theory at the upper-undergraduate and graduate levels.
Customer Reviews

The only way to really get any use out of this book is to read the papers that it uses as references. Most of the equations have been copied incorrectly from the original papers, and many of the key variables are never defined in the text of the book. Overall, it was pretty frustrating to try to use as a textbook. In my phased array antenna class, we invariably had to find the IEEE papers used as references and read them to make any sense of the book.

I purchased this book because I thought it’ll be an update of the author’s classic ‘Microwave Scanning Antenna’ containing new material as well. During my review of the book and identifying a lot of flaw equations, I started deriving them myself or grabbed the corresponding papers which were referenced. So to recap the lessons learnt so far, I would recommend not to solely rely on this book but be cautious (especially when using the equations) and use the reference list and/or stick to the old ‘Microwave Scanning Antennas’ released in the 60s.

This book is riddled with errors. You can do a web search for the author and title to get the author’s web page with two pages of corrections. The book is a follow on for the authors older book Scanning Microwave Antennas. The new book has fewer pages and therefore leaves much of the older book out. It does contain new material though. I would suggest buying the older book first (available used here on ) and only buy this book if you are deeply into antenna design.

This book has numerous technical errors and inadequate references. The deficiencies apparently stemmed from the author’s attempt from the role of editor in his previous book on this subject published in the 1960s, which is comprehensive and of high quality, to a single-authored book without adequate research on each subject covered. However, this book does have the merit of bringing up new issues and progresses in phased arrays over the past decade, even though some controversies and inaccuracies were created in the process by the author.

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