Book Reviews

PRINTED CIRCUIT HANDBOOK, Edited by Clyde F. Coombs Jnr. 2nd Edition. McGraw-Hill. pp. 634. (\$32.50).

At a time when printed wiring interconnection systems represent an important and growing part of the electronics component business, it is appropriate that a second edition of this handbook, originally published in 1967, should be produced. The book has been entirely revised and expanded the original edition had 530 pages and 16 chapters, whereas the new edition has over a hundred more pages and 25 chapters. There is in fact a lot of entirely new material which leads to new sections on quality assurance, multi layer circuitry and flexible printed wiring. Also included in the new edition is a glossary of commonly used terms in the printed wiring industry.

Obviously the new chapters are produced by new authors, but also the majority of the revised chapters have new authors as well, although the whole book is ably edited by the editor of the original edition.

The aim of the book is to present a practical text which tells readers how to actually do things, and in this sense it fulfills its task admirably. However, one gets the feeling that some time has elapsed between the completion of the second edition and the appearance of the volume, which leads to some omissions in relationship to the present situation, e.g. it is surprising there is no mention of surface profile measurements measuring apparatus (talystep) in the discussion on measurements of plating thickness, and computer aided design is only examined briefly, with little mention of the types of equipment that are now available to the manufacturer. Probably these and similar faults could have been avoided with a final chapter on the future of printed wiring. Such a chapter would be very helpful in discussing the relationship between printed wiring systems and thick film and thin film technologies, particularly with regard to the impact of LSI and VLSI on the substrate and wiring pattern requirements. The only other point of criticism is that only 3 chapters, those on image transfer, plating, and etching, provide adequate references, which means it is often difficult to follow up some of the material discussed.

The book is well produced with clear diagrams and text and certainly comes up to the high standards set for the Handbook Series by McGraw-Hill.

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PRINTED CIRCUIT BOARDS FOR MICRO-ELECTRONICS by J. A. Scarlett. 2nd Edition. Electrochemical Publications Ltd., 1980. pp 284. (£31.00)

This book is a revision of a text originally published in 1970, and as such contains a lot of new material. The author is particularly concerned with fine line, high density boards, and describes the design, production and testing of these in detail. Of particular interest is the attention given to CAD. The book is indeed a useful introduction to those who are concerned with the design of the boards needed in the new generation of high density circuits.

Some small comments need to be made. The author should be aiming at a wider audience than just in the UK, and therefore comments about such organizations as the Institute of Circuit Technologists, relevant as they are, should at least be placed in a European context. More important, however, the present reviewer would like to have seen some more practical details on materials such as etches, so that one could use the book to make one's own solutions etc. In this context, the reader is given very few references either, which could be used to give more practical details if the author did not want to give them in his text.

The book is well produced and illustrated though not all the illustrations have the dimensions noted on them. From a production point of view, it seems a pity that the publishers have seen fit to include full page advertisements at the end of the text – surely this is not necessary, especially given the high price of the book.

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