analog - digital

CONVERSION NOTES

by
The Engineering Staff of
Analog Devices, Inc.

Edited by
Daniel H. Sheingold

Published by
Analog Devices, Inc.
Norwood, Massachusetts 02062 U.S.A.

International Standard Book Number 0-916550-03-6
Library of Congress Card Number 77-78786

Printed in the United States of America

Reprinted: April, 1978 November, 1978 April, 1979
March, 1980 August, 1980

Additional copies may be obtained for $5.95 from Analog Devices, Inc.,
P.O. Box 796, Norwood, Mass 02062

PREFACE TO THE 1977 SEMINAR EDITION

Analog-Digital Conversion Notes is the first major revision of material previously published in the highly successful *Analog-Digital Conversion Handbook*, first published by Analog Devices, Inc., in 1972 and reprinted in 1976.

This volume contains Parts I and II of that book, updated wherever specific converter products are referred to, in order to reflect the revolution in cost, size and (in some cases) performance brought about by the development of converters in integrated-circuit and hybrid form.

Two entirely new chapters have been added to further reflect changes in the structure of the technological marketplace brought about by the availability of both converters and computers as true components. Chapter II-2 is a consideration of the relationship between processes, configurations, and performance in miniature low-cost converters. Chapter I-4 considers the application of converters with parallel and serial digital interfaces, microcomputers, asynchronous serial data ports, and proprietary integrated data-conversion-subsystem architectures—a natural sequel to the wide-ranging discussion of system considerations in Chapters I-2 and I-3.

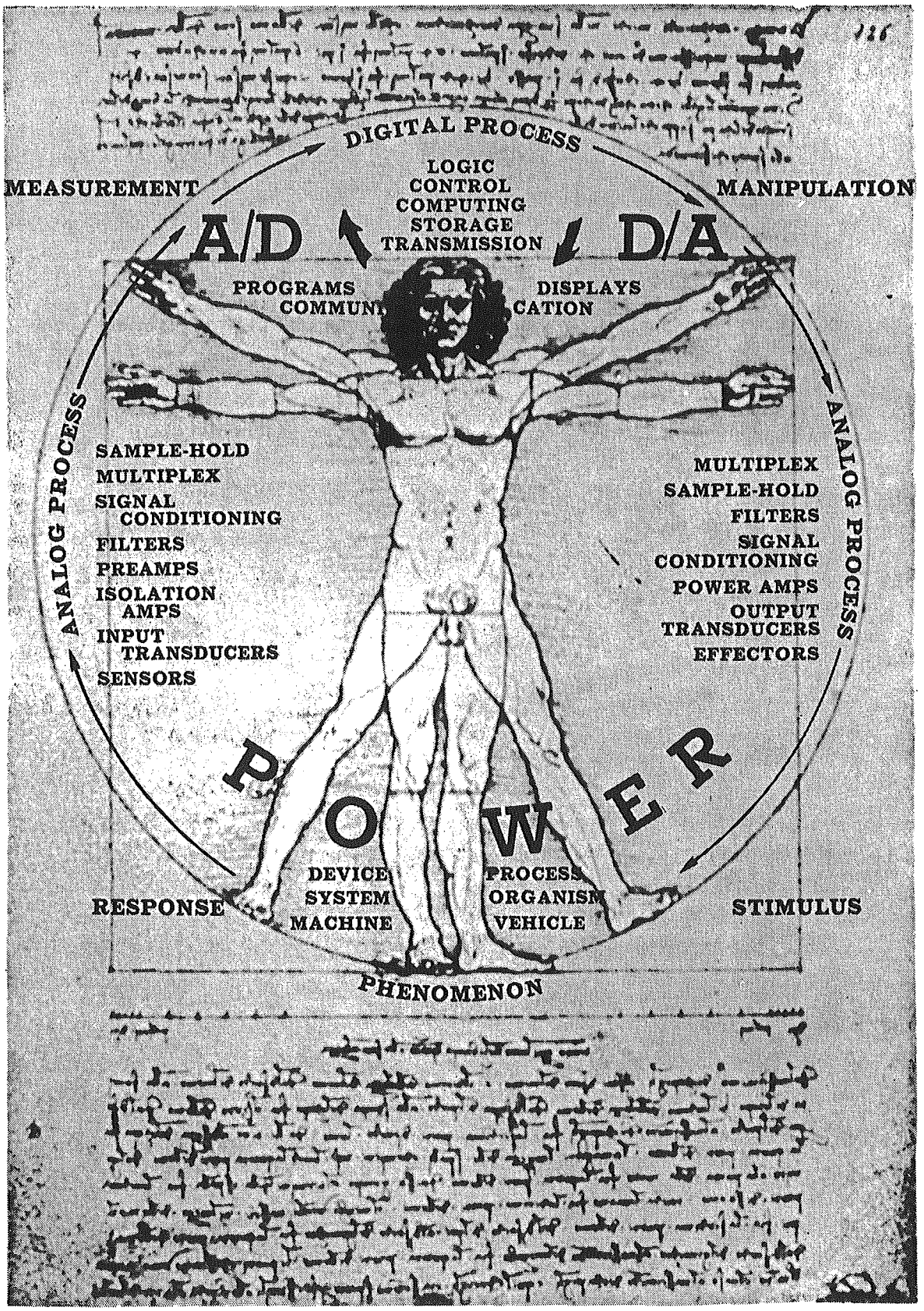
As with the earlier volume, it is our hope that this volume will help the purely digital or purely analog designer obtain appropriate practical knowledge of the complementary field and the interface between them, and that it will serve as a useful text and reference source for all designers and users of interface equipment. We will welcome the comments and suggestions of our readers for the benefit of future editions and readers.

March 1, 1977
Norwood, Mass.

D.H. Sheingold

CONTENTS IN BRIEF

CONTENTS IN DETAIL



(D. H. Sheingold, with apologies to Leonardo da Vinci: Rule of Proportions, Academy of Fine Arts, Venice)

Figure 1. Functions in a data system.