

Electronic components & applications

Index to Volume 5

1983

Contents

NUMBER 1

Non-linear resistors for protection of telephone equipment <i>J. P. Coulmance and J. C. van Loon</i>	2
D.C. controlled volume and tone control ICs <i>W. Eckert</i>	7
Small area networks for serial data transfer <i>A. Goldberger, C. Kaplinski and A. P. M. Moelands</i>	15
High-speed CMOS <i>R. Croes</i>	23
Long-term reliability of linear bipolar ICs <i>F. W. Ohlenroth</i>	33
Semiconductor laser with collimating optics <i>L. J. van Ruyven</i>	42
Dual-gate MOSFETs for u.h.f. and v.h.f. applications <i>J. Houthoff and T. H. Uittenbogaard</i>	46
One IC and a SAW filter in a high-performance vision i.f. channel <i>P. J. M. Sijbers and J. Zeelen</i>	56

NUMBER 2

Bipolar IC merges telephone dialling and speech <i>F. van Dongen, J. J. A. Geboers and H. J. M. Otten</i>	66
Circuits for modular design of consumer and industrial products – the CLIPS system <i>E. T. Keve</i>	78
Microwave integrated circuits – design and realisation <i>W. Goedbloed and S. D. Vriesendorp</i>	85
Fast and undistorted data transfer in noisy environments <i>J. Exalto</i>	100
High-resolution monitor tube <i>L. J. W. Versnel</i>	108
Microcomputer peripheral IC tunes and controls a tv set <i>K. H. Seidler</i>	113
Next generation microcontroller <i>K. A. H. Noach</i>	117
A complete fm radio on a chip	123

CMOS gate arrays – the fast way to semi-custom logic	124
Research News	125

NUMBER 3

CMOS gate arrays – the fast way to semi-custom logic <i>R. Croes</i>	130
Data communications <i>Alex Goldberger</i>	142
The magnetoresistive sensor – a sensitive device for detecting magnetic field variations <i>U. Dibbern and A. Petersen</i>	148
Circulators and isolators for reducing transmitter intermodulation <i>W. Golombek</i>	154
A complete f.m. radio on a chip <i>W. H. A. van Dooremolen and M. Hufschmidt</i>	159
Progress in SMPS magnetic component optimisation <i>L. P. M. Bracke</i>	171
Data converters for robotics <i>Stephan Ohr</i>	181
Brief items of interest	188

NUMBER 4

Cobalt rare-earth high energy permanent magnets <i>N. A. Anderson</i>	194
Multiple loudspeaker arrays using Bessel coefficients <i>W. J. W. Kitzen</i>	200
Silicon temperature sensors <i>A. Petersen</i>	206
I ² C bus in consumer applications <i>A. Moelands</i>	214
High-voltage power transistor quality <i>J. Dijk</i>	222
Liquid crystal displays <i>A. D. Schelling</i>	233
Recent developments in wet a aluminium electrolytics <i>A. Otten, H. Schmickl and J. Slakhorst</i>	246

Subject Index

Capacitors

Recent developments in wet aluminium electrolytics 246

Data processing

Circuits for modular design of consumer and industrial products – the CLIPS system 78

Data communications 142

Data converters for robotics 181

Fast and undistorted data transfer in noisy environments 100

I²C bus in consumer applications 214

Next generation microcontroller 117

Small area networks for serial data transfer 15

Display

High-resolution monitor tube 108

Liquid crystal displays 233

Instrumentation and control

Silicon temperature sensors 206

The magnetostrictive sensor – a device for detecting magnetic field variations 148

Integrated circuit technology

CMOS gate arrays – the fast way to semicustom logic 124, 130

Fast electron lithography – another step toward LSI 125

High-speed CMOS 23

Microwave integrated circuits – design and realisation 85

Optoelectronics

Semiconductor laser with collimating optics 42

Materials

Cobalt rare-earth high energy permanent magnets 194

Progress in SMPS magnetic component optimisation 171

Quality

High-voltage power transistor quality 222

Long-term reliability of linear bipolar ICs 33

Telecommunications

Bipolar IC merges telephone dialling and speech 66

Circulators and isolators for reducing transmitter intermodulation 154

Non-linear resistors for protection of telephone equipment 2

Television, radio, audio

A complete f.m. radio on a chip 123, 159

D.C. controlled volume and tone control ICs 7

Dual-gate MOSFETs for u.h.f. and v.h.f. applications 46

Microcomputer peripheral IC tunes and controls a tv set 113

Multiple loudspeaker arrays using Bessel coefficients 200

One IC and a SAW filter in a high-performance vision i.f. channel 56

Contributor Index

Andersen, N. A.	194	Kitzen, W. J. W.	200
Bracke, L. P. M.	171	Loon, J. C. van	2
Coulmance, J. P.	2	Moelands, A.	15, 214
Croes, R.	23, 130	Noach, K. A. H.	117
Dibbern, U.	148	Ohlenroth, F. W.	33
Dijk, J.	222	Ohr, S.	181
Dongen, F. van	66	Otten, A.	66, 246
Dooremolen, W. H. A. van	159	Petersen, A.	148, 206
Eckert, W.	7	Ruyven, L. J. van	42
Exalto, J.	100	Schelling, A. D.	233
Geboers, J. J. A.	66	Schmickl, H.	246
Goedbloed, W.	85	Seidler, K. H.	113
Goldberger, A.	15, 142	Sijbers, P. J. M.	56
Golombek, W.	154	Slakhorst, J.	246
Houthoff, J.	46	Uittenbogaard, T. H.	46
Hufschmidt, W. H. A.	159	Versnel, L. J. W.	108
Kaplinski, C.	15	Vriesendorp, S. D.	85
Keve, E. T.	78	Zeelen, J.	56

Electronic Components & Applications is published four times a year by Philips Electronic Components and Materials Division (Elcoma), The Netherlands, in cooperation with associated companies such as Mullard Ltd. in England and Valvo in Germany.

It is intended for those who have a professional need to keep up to date on electronic component and circuit developments.

Its contents are gathered from research, application and quality control laboratories and the factories of the Elcoma organisation around the globe.

Technical enquiries and requests for rights to reprint or translate articles should be addressed to the Editor, EC&A, Philips Electronic Components and Materials Division, Marketing Communications, Eindhoven, The Netherlands.

Abstracts or references should mention title, author, and the source: Electronic Components & Applications, published by Philips Electronic Components and Materials Division, Eindhoven, The Netherlands.

Subscription

The subscription rate for Volume 6 is \$15.00/£8.00/Hfl.40.00, postage paid; supplementary charge for airmail to countries outside Europe, \$6.00.

Subscription enquiries should be addressed to D. A. Roubos, Building BA, Philips Electronic Components and Materials Division, Eindhoven, The Netherlands; Telex 35000 phtcnl; Tel. +31 40 72 34 12.