

# **Electronic components & applications**

incorporating Philips Electronic Applications Bulletin and Mullard Technical Communications

## **Index to Volume 1**

Electronic Components and Materials Division  
N.V. Philips' Gloeilampenfabrieken, Eindhoven, The Netherlands

# CONTENTS

## **Number 1**

- Microprocessor-controlled video games  
*S.J. Op het Veld*
- Two-tone telephone dialling  
*J.J.A. Geboers, D.J.G. Jansen, J.C. Kaire*
- UHF broadband amplifier for transposer bands IV and V
- Understanding rectifier diode data  
*P.G. Noble*
- Publications news
- Improved performance 25 mm diameter Plumbicon\* tube  
*A.A.J. Franken*
- A.M./F.M. receiver IC

## Research news

## **Number 2**

- 2/3 inch Plumbicon\* tube with enhanced performance  
*A.A.J. Franken*
- Digital control of radio and audio equipment Part 1 – Frequency measurement and display system for a.m. and f.m. radios  
*J. van Straaten*
- The 8X300 – a high-speed, control-oriented microprocessor  
*E.D. van Veldhuizen*
- 30AX self-aligning 110° in-line colour TV display  
*P.G.J. Barten and J. Kaashoek*
- Solar panels for terrestrial applications  
*C. Franx*
- The BZW10 transient suppression bridge for telephones
- Research News

## **Number 3**

- 4 Reliability proven: BDW55/56 gold-gold medium-power transistors  
*S. Sliedregt* 135
- 29 TDA1011: versatile 2 to 6 W audio amplifier 149
- 43 Single-phase rectifier circuits with CR filters Part 1 – Theory  
*A. Lieders* 153
- 45 Understanding thyristor and triac data  
*P.G. Noble* 164
- 56 Publications news 182
- 57 The P<sup>2</sup> CCD 500B linear imager  
*M. Herrmann and J. Wölber* 183
- 60 Research News 192
- 63

## **Number 4**

- 71 Microcomputer-controlled tuning and control systems for TV  
*F.A.M. van de Kerkhof* 199
- 78 Single-phase rectifier circuits with CR filters Part 2 – Design procedure  
*A. Lieders* 216
- 79 Digital control of radio and audio equipment Part 2 – Voltage converter and memory for preset radio tuning  
*J.W. Beunders* 231
- 91 Part 3 – Introduction to microcomputer-controlled radio tuning system  
*U. Schillhof* 239
- 103 The 8X300 development and monitoring system (DMS)  
*E.D. van Veldhuizen* 249
- 125
- 128

## SUBJECT INDEX

AM/FM receiver	60	Optical recorder	128
Amplifier,			
audio	149	Plumbicon* camera tube	57, 71
UHF broadband	43	P <sup>2</sup> CCD 500B linear imager	183
Automatic identification of FM station	64		
BDW55/56	135	Radio tuning	231, 239
BZW10	125	Rectifier circuit	153, 216
		Rectifier diode	45
Cathode ray tube	63	SAA1058	79
Chip capacitor	152	SAA1070	79
CR filter	153, 216	SAA1089	231
Crystal growth	65	Solar panel	109
		Suppressor bridge	125
Data display	63		
Device data	45, 164	TDA1011	149
Digital control of radio and		TDA1077	29
audio equipment	78, 231, 239	Telephone	29, 125
Frequency measurement and display for radios	79	Thyristor	164
		Triac	164
Image intensifier	215	TV tuning	199
Integrated circuit.		Two-tone dialling	29
for AM/FM receiver	60	UHF broadband amplifier	43
manufacture	65		
Laser	128, 129	Video games	4
Linear imager	183	Voltage converter for radio tuning	231
LSI	192		
Metallisation	135	8X300	91, 249
Microcomputer	199, 239	8X300 development and monitoring system	249
Microprocessor	4, 91, 249	30AX colour TV system	103

## CONTRIBUTOR INDEX

Barten, P.G.J.	103	Kerkhof, F.A.M. van de	199
Beunders, J.W.	231	Lieders, A.	153, 216
Franken, A.A.J.	57, 71	Noble, P.G.	45, 164
Franx, C.	109	Op het Veld, S.J.	4
Geboers, J.J.A.	29	Schillhof, U.	239
Herrmann, M.	183	Sliedregt, S.	135
Jansen, D.J.G.	29	Straaten, J. van	79
Kaashoek, J.	103	Veldhuizen, E.D. van	91, 249
Kaire, J.C.	29	Wölber, J.	183

# CONTENTS LISTED UNDER APPLICATION AREAS

## BROADCAST AND AUDIO

A.M./F.M. receiver IC	60
Digital control of radio and audio equipment	78
Part 1 – Frequency measurement and display system for a.m. and f.m. radios	79
Part 2 – Voltage converter and memory for preset radio tuning	231
Part 3 – Introduction to microcomputer-controlled radio tuning system	239
TDA1011: versatile 2 to 6 W audio amplifier	149

## COMMUNICATION

The BZW10 transient suppression bridge for telephones	125
Improved performance 25 mm diameter Plumbicon* tube	57
The P <sup>2</sup> CCD 500B linear imager	183
Reliability proven: BDW55/56 gold-gold medium-power transistors	135
Two-tone telephone dialling	29
UHF broadband amplifier for transposer bands IV and V	43
2/3 inch Plumbicon* tube with enhanced performance	71

## INSTRUMENTATION AND CONTROL

The 8X300 – a high-speed, control-oriented microprocessor	91
The 8X300 development and monitoring system (DMS)	249

## POWER ELECTRONICS

Single-phase rectifier circuits with CR filters	
Part 1 – Theory	153
Part 2 – Design procedure	216
Solar panels for terrestrial applications	109
Understanding rectifier diode data	45
Understanding thyristor and triac data	164

## TELEVISION

Microcomputer-controlled tuning and control systems for TV	199
Microprocessor-controlled video games	4
30AX self-aligning 110° in-line colour TV display	103

---

\*Trademark of N.V. Philips' Gloeilampenfabrieken for television camera tubes