#### **Video and Audio**

- 6 WHAT'S NEW IN VIDEO & AUDIO The latest products...
- 8 THE CHALLIS REPORT: This year's Winter CES in Las Vegas

#### Features

- 16 MOFFAT'S MADHOUSE GUI? Phooey!
- 18 CATCHING & REPAIRING A SICK SATELLITE Daring NASA mission
- 22 AUTOMOTIVE ENGINE CONTROL 3 Inside the controller itself
- 28 ATOMIC RADIATION IN YOUR HOME? A higher risk than you'd think
- 46 WHEN I THINK BACK... How early radio magazines came and went

# **Projects and Technical**

- 36 THE SERVICEMAN Venturing into the bowels of a computer...
- 62 CIRCUIT & DESIGN IDEAS Remote control extender, short detector
- 64 LOW COST 30+30W STEREO AMPLIFIER Popular design revamped
- 76 SIMPLE, COMPACT GEIGER COUNTER Check for possible danger!
- 81 EXPERIMENTING WITH ELECTRONICS A safe, low cost 9V supply
- 84 VINTAGE RADIO Understanding AGC 2: more elaborate systems

# **Professional Electronics**

- 100 NEWS HIGHLIGHTS Japan building E-M propelled ship, UK drops CT-2
- 104 REVIEW: APPA 105 HANDHELD DMM Improved accuracy, 3999 count
- 106 SILICON VALLEY NEWSLETTER Sematech unveils five-year plan 108 BASICS OF DC-DC CONVERTER DESIGN - 3 Practical examples
- 108 BASICS OF DC-DC CONVERTER DESIGN 3 Practical examples
  114 DIGITAL SPEAKERS Novel idea to reduce distortion in audio systems
- 116 SOLID STATE UPDATE VGA controller for LCD's operates from 3.3V
- 118 NEW PRODUCTS Low cost process recorder, VOR/ILS service monitor
- 122 REVIEW: DIAGNOSTIC SOFTWARE FOR PC'S Help to isolate faults
- 126 COMPUTER NEWS & NEW PRODUCTS PSPICE now fully integrated

### **Columns and Comments**

- 4 LETTERS TO THE EDITOR Postage rates, young people and electronics
- 5 EDITORIAL VIEWPOINT The postage price hike thanks for your help
- **52 FORUM** Persuading switch-mode supplies to generate fewer harmonics **90 SHORTWAVE LISTENING** 50 years of monitoring the BBC
- 92 INFORMATION CENTRE No. it wasn't a con at all!
- 98 AMATEUR RADIO NEWS French amateurs lose 2m during Olympics