

In next month's issue

- Dolby surround sound
- Quasi analogue clockwork
- Audio digital-to-analogue converter
- Self-loading Integrated Code EEPROM Type X88 C64
- Debugging the 8031
- Maxim voltage references and others for your continued interest

Apologies

We regret that owing to a reprographical error page 34 of the November issue was repeated on page 35. The missing page 35 is published on page 107 of this issue. Those readers who do not wish to buy the December issue can obtain page 35 on request from our editorial office in Dorchester.

We also regret that in certain issues incorrect glue was used to fix the subscription leaflet. Readers with a damaged contents page can obtain a new one on request from our editorial office in Dorchester.

Front cover

The photo shows the circuit of a 1-to-3-phase converter and some motors whose speed can be controlled with it. The unit, described on pp. 26-30, converts the single-phase mains supply to a 3-phase voltage which can control small three-phase motors rated at up to 725 W, irrespective of whether these are synchronous or induction types.

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To all our readers: thank you for your continued support during the past year and may peace be with you in the coming year.

58 CUMULATIVE INDEX 1994**108 PRODUCT OVERVIEW****APPLICATION NOTE****54** TLC247xx amplifier**AUDIO & HI-FI**

- 44** Switched tone control
- 48** In-car audio amplifier - Part 3 (final)
- 91** Low-frequency tone control
- 103** Stand-alone S/PDIF copybit eliminator
- 104** Loudness control
- 105** Fast switch-off for power amplifier

COMPONENTS

- 9** ispStarter kit from Lattice
- 16** PSD3xx chips
- 32** Gyrator
- 33** 4th order Butterworth filters
- 45** Relay controlled potentiometer
- 46** 8th order Bessel filter
- 91** General-purpose filters
- 101** 50 Hz band-stop filter
- 102** Programmable divider
- 102** Improved optoisolator
- 104** Comparator with unilateral hysteresis
- 106** Composite operational amplifiers

COMPUTERS & MICROPROCESSORS

- 83** PC interface for Casio organizer
- 93** SIP-to-SIM adaptor board
- 96** Discrete A-D converter for 8051
- 99** Centronics input

GENERAL INTEREST

- 26** 1-to-3-phase converter
- 32** Chaos
- 34** Auto start for older fax machines
- 34** NPN/PNP selector
- 38** Proximity detector
- 44** Fuse protector
- 45** Motor speed controller
- 46** Movement alarm
- 47** Battery adaptor for portable CD players
- 47** Magnetic-field detector

- 63** Pump for operational amplifiers
- 63** Electric-field detector
- 74** The Digital Solution
- 80** Temperature protection for resistive high-power loads
- 82** I²C real-time clock
- 88** Speed control for d.c. motors
- 89** Ionisation meter
- 90** Reversing indicator
- 92** Soft start for motors
- 94** Electret microphone for telephone mouthpiece
- 95** Presentation running lights
- 96** H-field sensor
- 98** Fax-PC interconnection
- 101** Power-on delay

POWER SUPPLIES & BATTERY CHARGERS

- 20** RF immune power supply
- 33** Step-up NiCd battery charger
- 62** Reflex-charging adaptor
- 66** Electronic know-how: Batteries
- 81** 5 V regulator on 45 V
- 88** Soft start regulator

RADIO, TELEVISION & COMMUNICATIONS

- 35** 30 m QRP CW transmitter
- 83** Switching voltage for polarizer
- 90** Dual-purpose LED display

TEST & MEASUREMENT

- 5** 1000 Hz sine wave generator
- 62** Single-diode full-wave rectification
- 92** Spike detector
- 98** Differential probe
- 100** Current probe

MISCELLANEOUS INFORMATION

- 84** Components Select
- 110** Readers' Services
- 111** Order forms
- 112** Terms of business
- 113** Switchboard
- 113** Books from Elektor Electronics
- 114** Buyers' guide
- 114** Index of advertisers

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B7	B6	B5	B4	B3	B2	B1	B0	
x	x	x	x	x	x	0	0	drive A:
x	x	x	x	x	x	0	1	drive B:
x	x	x	x	x	x	1	x	DOS selects number
x	x	x	x	x	1	x	x	18 sectors/track
x	x	x	x	x	0	x	x	36 sectors/track
x	x	x	x	1	x	x	x	read/write
x	x	x	x	0	x	x	x	write protect

x = don't care
1 = jumper not fitted
0 = jumper fitted

Table 2. Configuration bit functions.

board. A dash indicates that a jumper must be fitted.

Once the card address has been set up, the board is put aside for a moment. Do not yet insert into the PC.

Start the software configuration by informing the PC about an additional drive. Enter the structure of the drive into the CONFIG.SYS file. Use one of the following commands to do so:

```
driveparm=/D:00/F:07/H:2/S:xx/T:80
```

to assign the solid-state disk to drive A:, or

```
driveparm=/D:01/F:07/H:2/S:xx/T:80
```

to assign it to drive B:.

The parameter 'xx' indicates the number of sectors per track. It should be set to '18' to emulate a 1.44-MByte disk, or '36' for a 2.88-MByte disk.

If the computer already has two diskette drives, and you wish to add the solid-state disk, a DOS driver must be started. That can be achieved by adding the following line to the CONFIG.SYS file:

```
Device=\<DOS directory>\driver.sys  
/D:n/F:07/H:2/S:xx/T:80
```

where n takes a value between 0 and 3.

Having added these lines, switch the computer off. Insert the solid-state disk card, secure the bracket, and close the case. The solid-state disk is not usable yet, because it has to be formatted first. That is done with the aid of the familiar 'FORMAT' command available under DOS. Despite the fact that the capacity of the drive has been fixed by the 'driveparm' instruction, it is still recommended to repeat the desired capacity. Do this by using the /F: parameter offered by the FORMAT

command, as follows:

```
FORMAT B:/F:1440  
FORMAT B:/F:2880
```

for a 1.44-Mbyte or 2.88-MByte emulation of disk drive B:, respectively. Evidently, the 'station' letter (B: in the examples) must be changed in accordance with the identification assigned to the solid-state disk.

If the solid-state disk is to be used in a PC which has no disk drives at all,

it has to be formatted in another PC, and then loaded with the application software. Note that this requires the disk to be made 'bootable', which is achieved using FORMAT /S.

Finally, we repeat our warning that only 2 Mbyte of memory capacity is available even if the disk card is formatted for 2.88 Mbyte.

(940085)

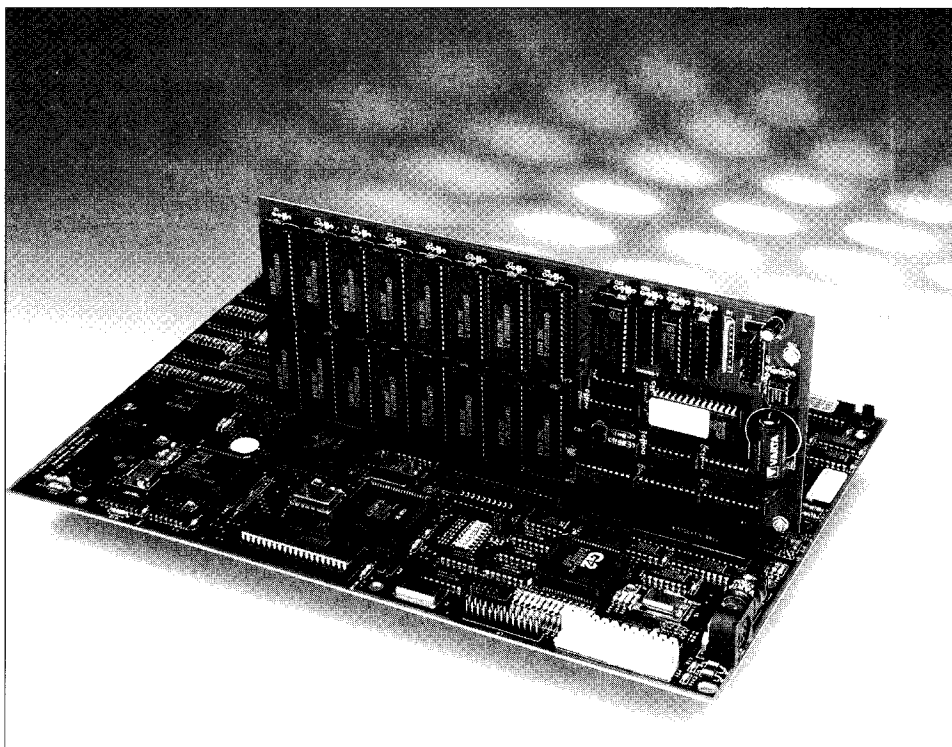


Fig. 3. Completed prototype of the solid-state disk card, mounted into an extension slot of a 386 motherboard. The key words are: no wear and tear, quiet operation, high speed and excellent reliability.