

## ICs for hi-fi and auto radio

The TDA1576 is an FM/IF amplifier/quadrature demodulator which has 22  $\mu$ V sensitivity for 3 dB limiting and a S/N ratio of 75 dB for a 1 mV input voltage.

AM suppression is 50 dB over most of the input signal range.

A four-stage symmetrical limiting IF amplifier in the TDA1576 is followed by a fast-acting noise-muting circuit and a quadrature demodulator. This muting circuit simulates the performance of a ratio detector and provides a symmetrical AFC output voltage.

A signal-strength output drives an S-meter. The TDA1576 is able to compensate for any offset due to the noise from high-gain tuners.

An additional feature is a built-in detune detector which can also be used as a dynamic noise detector.

The TDA1578A is a multiplex PLL stereo decoder designed for optimum performance with a minimum of peripheral components. The total gain of the stereo decoder will be constant  $\pm 1$  dB over the whole supply voltage and temperature range. The internal signal path consists

of an input operational amplifier, an AF muting circuit, the MUX decoder and an output op-amp.

When the muting system in the TDA1578A is active, an indicator driver can control a LED which indicates the correct tuning point. The dc-controlled muting can be controlled by any combination of the field strength voltage and the detuning voltage of the TDA1576, with adjustable muting slope and level up to  $-60$  dB.

When the TDA1576 and TDA1578A are used together the detune circuits in the TDA1576 drive a muting or dc-controlled mono/stereo blend circuit in the TDA1578A.

The TDA1576 and TDA1578A are each encapsulated in an 18-pin plastic DIL.

For further information contact Philips Electronic Materials & Components, 67 Mars Road, Lane Cove NSW 2066. (02) 427-0888.

## I-Scan design development set

The I-Scan design development set is being offered by Fairchild as a tool with which to gain understanding of the principles of charge-coupled devices.

The set includes a Fairchild CCD111 and a 256-element line scan sensor, mounted on a pc board which contains all the necessary CCD111 operating electronics.

I-Scan is intended for use as a construction aid for experimental systems using CCD line scan sensors or it can be incorporated directly into systems requiring 256 elements of resolution.

I-Scan comes fully assembled and tested and requires only the input supply voltage and an oscilloscope to display the video information corresponding to the

image placed in front of the sensor.

The I-Scan pc board includes a variable frequency clock generator that can be overridden by an external input, logic circuitry for timing the drive signals, drivers to interface and TTL logic to CCD levels and video buffer circuits.

Detailed schematics, a parts layout and timing diagrams are included with I-Scan.

For more information contact Fairchild Australia Pty Ltd, 366 Whitehorse Rd, Nunawading Vic. 3131. (03) 877-5444.

## Zero voltage crossing triac drivers

Two new series of optically coupled zero voltage crossing triac drivers are intended to be used for low power dc controlling of power triacs in 120 Vac and 220 Vac lines controlling resistive, inductive and capacitive loads.

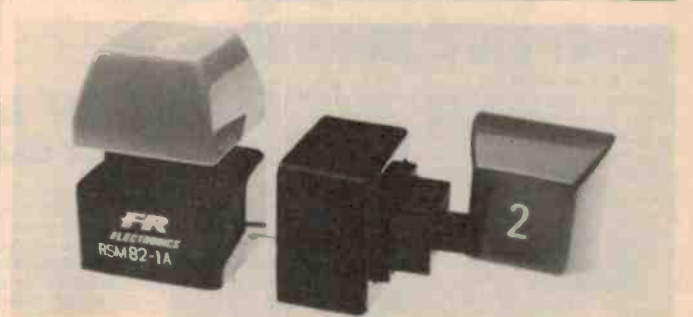
The OPI3030, OPI3031, OPI3032 and OPI3033 series are designed for 120 Vac operation and the OPI3040, OPI3041, OPI3042 series are designed for 220 Vac operation. Each series has ratings of 30 mA, 15 mA, 10 mA and 5 mA respectively (LED drive current necessary to trigger the output).

Zero voltage crossing ensures that the devices will not turn on at voltages in excess of 15 V (typ) for the OPI3030 series and 25 V

(typ) for the OPI3040 series. Advantages include longer load life and reduced amplitude of line peaks since full line voltage will not appear across the load when the power triac turns on.

These devices can also be used as low level triacs for driving small ac loads, warning lamps, display alarms, etc.

For further information contact Total Electronics, 9 Harker St, Burwood Vic. 3125. (03) 288-4044.



## Keypad and keyboard range

FR Electronics manufacture a range of keyswitch products which use the RSM62 and RSM82 reed switch type keyboard switches.

It is claimed that the reed switches offer long electrical life and high reliability with a maximum of flexibility. The anti-rotational four-bearing plunger design is used to minimise

sideplay and give smooth action.

Illuminated and non-illuminated versions are available with single pole or double pole normally open functions. A full range of coloured keytops is available and alternative characters can be supplied on request.

More information is available from C & K Electronics (Aust) Pty Ltd, 15 Cowper St, Parramatta NSW 2150. (02) 635-0799.

## How SIOVs broke the drought

SIOVs (Siemens metaloxide varistors) can be used to break down the damaging effects of high voltage spikes which are often at their worst in dry atmospheric conditions.

Siemens claim that SIOVs provide protection, for delicate components, against deliberate or accidental voltage transients. e.g: SIOV S10 K20 has a diameter of 13.5 mm and a thickness of 4 mm and can absorb transients over 20 VRMS (26 Vdc) of 500 A or 1.6 joule (single-shot 20 us rating; lower ratings for repeated SIOV operations).

Thicker metaloxide discs have higher operating voltages, while larger diameter discs have higher

current ratings. More material bulk from either thickness or diameter gives higher energy absorption ratings.

The local stock range now covers the most popular current and voltage ratings for Australian and New Zealand conditions. These products can be obtained from any Siemens Electronic Components' outlet. In Sydney they're at 383 Pacific Hwy, Artarmon NSW 2064. (02) 436-8730.