



COMPONENT NEWS

EVALUATION ENGINEERING

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AUTOMATIC INSERTION FOR DUAL-IN-LINE IC'S

Our E.C.B. production area has recently purchased and will soon be receiving an automatic I.C. handler. This device will automatically insert *dual-in-line I.C.* packages into their sockets on the E.C. boards. For this reason it is suggested that in all design areas where a package choice is available and room permits, the *dual-in-line* package be used.

For further information, contact me at Ext 6337.

-Steve Tosh

DIGITAL INTEGRATED CIRCUITS - TTL & MSI

In many cases a good choice for new digital systems is "74N" series TTL (Transistor-transistor logic). The "74N" family includes a large variety of circuit types, is available from many sources, offers good circuit performance, and due to popularity will be competitively priced. Twenty IC's in the "74N" family have received *TEKTRONIX* part numbers (see Component News, Issue No. 115). The price of "74N" IC's has dropped substantially during the past year. Sample prices are shown below:

<u>TEK P/N</u>	<u>MFG P/N</u>	<u>DESCRIPTION</u>	<u>PRICE*</u>
156-0030-00	SN7400N	Quad 2-input gate	.72
156-0039-00	SN7473N	Dual J-K flip-flop	1.66
156-0041-00	SN7474N	Dual D flip-flop	1.44
156-0061-00	SN7442N	BCD-to-decimal decoder	3.70
----	SN7490N	Decade counter	2.80
156-0032-00	SN7493N	4-bit binary counter	2.80

*The large quantity price will continue to drop. For instance, the SN7400N price will be less than 50¢ in six months.

Often MSI (medium-scale integration) functions are available that will decrease package count as compared to an equivalent design implemented with individual IC gates and dual flip-flops. Good examples are the SN7490N Decade Counter and SN7442N BCD-to-Decimal Decoder. Both are less expensive than the equivalent individual IC's and the SN7442N replaces over six individual IC packages.

A number of MSI IC's are available in the "74N" series—Other MSI IC's are available that can be used with "74N" IC's.

A sample list of available MSI:

<u>TEK P/N</u>	<u>MFG P/N</u>	<u>DESCRIPTION</u>
156-0061-00	SN7442N	BCD-to-decimal decoder
156-0040-00	SN7475N	Quad bistable latch
----	SN7490N	Decade counter
156-0032-00	SN7493N	4-bit binary counter
156-0072-00	SN74121N	One-shot
----	<i>FAIRCHILD</i> 9601	Retriggerable one-shot
----	<i>FAIRCHILD</i> 9311	1 of 16 decoder
----	<i>FAIRCHILD</i> 9328	Dual 8-bit shift register
----	<i>FAIRCHILD</i> 9310	Decade counter (presettable, synchronous)

(The following part has just received a
TEKTRONIX part number.)

156-0073-00	SN7496N	5-bit shift register
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Some new MSI functions of interest (Some of these products are not yet readily available. Please contact me regarding availability and price):

SN74100N	8-bit bistable latch
SN74150N	16-bit data selector
SN74151N	8-bit data selector
SN74180N	8-bit odd/even parity generator/checker
SN7497N	6-bit binary rate multiplier

(Many more functions are available from *FAIRCHILD*, *NATIONAL*, *SIGNETICS*, *TEXAS INSTRUMENTS*, etc. including: *NIXIE* drivers, comparators, up/down counters, decoders, adders, etc.)

Condensed data or catalogs for "74N" series IC's are available for those who need them. If you have questions or need information on new TTL IC's, contact me at Ext 7262.

-Bill Markwart