



## The Complete Socket Solution

### PRODUCTION, PROTOTYPING AND TEST SOCKETS TO HELP YOU DESIGN IN INTEL FLASH MEMORY

Socket vendors are actively working on solutions for Small Outline Packages. This work includes robust semiconductor manufacturing sockets for burn-in and programming. It also includes sockets for manufacturers for code development or revisions. Lower cost production capable sockets are the newest development and will be available in Q3'95.

#### Socket Definitions

**Prototyping/Production Socket**—Typically used in the R&D environment or early production phases to facilitate the removal and re-insertion of devices for updating and debugging code. Characteristics include:

- 1) Small form factor
- 2) Surface mountable

- 3) PCB land-pad layout similar/close to that of device
- 4) Lower cost
- 5) Low insertion count [typically 10–100]

**Burn-in/Programming/Test Socket**—Typically used for test and burn-in activities at a semiconductor manufacturer's facility, or a socketing solution for programming devices on a manually-operated PROM programmer or an automated handler. Characteristics include:

- 1) Easy device insertion/removal via lock-in mechanism [usually because of larger form factor, especially in height]
- 2) High insertion count [typically  $\geq 10,000$ ]
- 3) Thru-hole technology
- 4) Normally more expensive than prototyping/production socket
- 5) Usually higher operating temperature range than prototyping socket

#### Socket Vendors

Socket Vendors	Address	Phone #	FAX #	Contact
Yamaichi	2235 Zanker Rd. San Jose, CA 95131	(408) 456-0797	(408) 456-0799	Al Muranaga
Texas Instruments	34 Forest St. Attleboro, MA 02703	(508) 699-5370	(508) 699-5339	Sal Rizzo
Meritec	1359 W. Jackson St. PO Box 8003 Painesville, OH 44077	(216) 354-2106	(216) 354-0687	Dick Wilkinson
Wells	1701 S. Main St. South Bend, IN 46613	(219) 287-5941	(219) 287-0356	John Hartstein
Enplas (call sales representative)	Tesco Int'l, Inc. 1825 S. Grant St. Suite 745 San Mateo, CA 94402	(415) 572-1683	(415) 341-1509	Valentino Yaming



**Socket Information**

**MERITEC PROTOTYPING/PRODUCTION SOCKETS**

Package	Lead Count	Vendor	Part #	Codes
TSOP	32	Meritec	980020-32-0*	A, B
	40	Meritec	980020-40-0*	A, B
	48	Meritec	980020-48-0*	A, B
	56	Meritec	980020-56-0*	A, B
PSOP	44	Meritec	980021-44-0*	A, B
SSOP	56	Meritec	980022-56-0*	A, B

**CODES:**

- A. Substitute part number asterisk with "1" to exclude positioning pins, or "2" to include positioning pins.
- B. Prototyping/production sockets will be available in Q3'95. This version will allow for permanent use of the socket in the design and replaces the current prototyping-only socket.

**COMMENTS:**

For exact pricing and availability please contact supplier.

**YAMAICHI PROTOTYPING/PRODUCTION SOCKETS**

Package	Lead Count	Vendor	Part #	Codes
TSOP	32	Yamaichi	1C197-3202-2000	A, B
	40	Yamaichi	1C197-4004-2000	A, B
	48	Yamaichi	1C197-4807-2000	A, B
	56	Yamaichi	1C197-5606-2000	A, B
PSOP	44	Yamaichi	1C179-44600-500	B
SSOP	56	Yamaichi	N/A	

**CODES:**

- A. -2000 socket has metal cover, -2100 has a plastic section over center portion of cover.
- B. Yamaichi prototyping/production sockets will be available in Q3'95.

**COMMENTS:**

For exact pricing and availability please contact supplier.





**BURN-IN/PROGRAMMING SOCKETS**

Package	Lead Count	Vendor	Part #	Codes
TSOP	32	Yamaichi	IC191-0322-001N IC191-0322-001	A, C, E A, B, E
		Enplas	OTS-32-0.5-03	C, E
	40	Yamaichi	IC191-0402-002N IC191-0402-002	A, C, E A, B, E
		Enplas	OTS-40-0.5-01	C, E
	48	Yamaichi	IC191-0482-004N IC191-0482-004	A, C, E A, B, E
		Wells	648-0482211-A31	E
56	Yamaichi	IC191-0562-003N IC191-0562-003	A, C, E A, B, E	
	44	Texas Instruments	CSP044-052	A, C, E, F
Yamaichi		IC51-0442-1536	B, C, D	
SSOP	56	Texas Instruments	CSP056-054	A, B, C, E

**CODES:**

- A. Contains optical target.
- B. With positioning pins.
- C. Without positioning pins.
- D. Clamshell socket.
- E. Open-top socket.
- F. Optimized for Copper PSOP leadframe; feet on alloy 42 leadframe can be bent slightly downward.

**COMMENTS:**

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