Next Generation Packages are Smallest in the Industry for Dual-in-line Devices

Packages with 0.4 mm Lead Pitch Also Meet PCMCIA Height Restrictions

DALLAS (May 20, 1996) - A new family of semiconductor packages developed by Texas Instruments (TI) requires approximately 40 to 60 percent less board space than a comparable, previous-generation SSOP (Shrink Small Outline Package) package. With the space savings brought about by these packages, which are known as Thin Very Small Outline Packages (TVSOP), designers of portable computer and communication systems will be able to design systems with improved performance, but smaller in size. TVSOP packages feature a lead pitch of 0.4 mm and a device height that meets the 1.2 mm height restriction of the PCMCIA (Personal Computer Memory Card International Association) standard for credit card size add-on modules for notebook and laptop computers. The TVSOP family features packages with 14, 16, 20, 24, 48, 56, 80 and 100 pins. TVSOP packages with 14 to 56 pins exhibit lower inductance than TSSOP (Thin Small Shrink Outline Package) and SSOP packages.

AVEX Electronics Inc., a contract electronics manufacturer, has received advance samples of devices in TVSOP packages. Said Tim Odom, vice president of development engineering for AVEX, "It is important that our company is prepared to manufacture printed circuit boards using semiconductor devices in today's most advanced packages. Because of the small size and thin profile of TVSOP packages, we wanted to demonstrate the manufacturability of these devices within our process. And we were successful at doing this."

TI's Advanced Systems Logic group will be the first to make devices available in the new TVSOP package. These will include devices from TI's high performance 5V (ABT and AHC) and 3.3V (ALVC and LVC) logic families and will be extended to cover additional TI logic products in the near future.

With the lower inductance of certain TVSOP packages, devices placed in these packages will achieve greater speeds and have improved performance. In addition, TVSOP packages use TI's multi-layer palladium lead-plating process which assures the most consistent performance with respect to solderability and manufacturability. TI is also using the most advanced manufacturing equipment to fabricate TVSOP packages.

To assist customers, a TVSOP Application Note is available from TI. The application note contains guidelines provided by TI Austin/Solectron and AVEX Electronics for the proper assembly and mounting of devices in TVSOP packages.

Sample devices in TVSOP packages are available now.