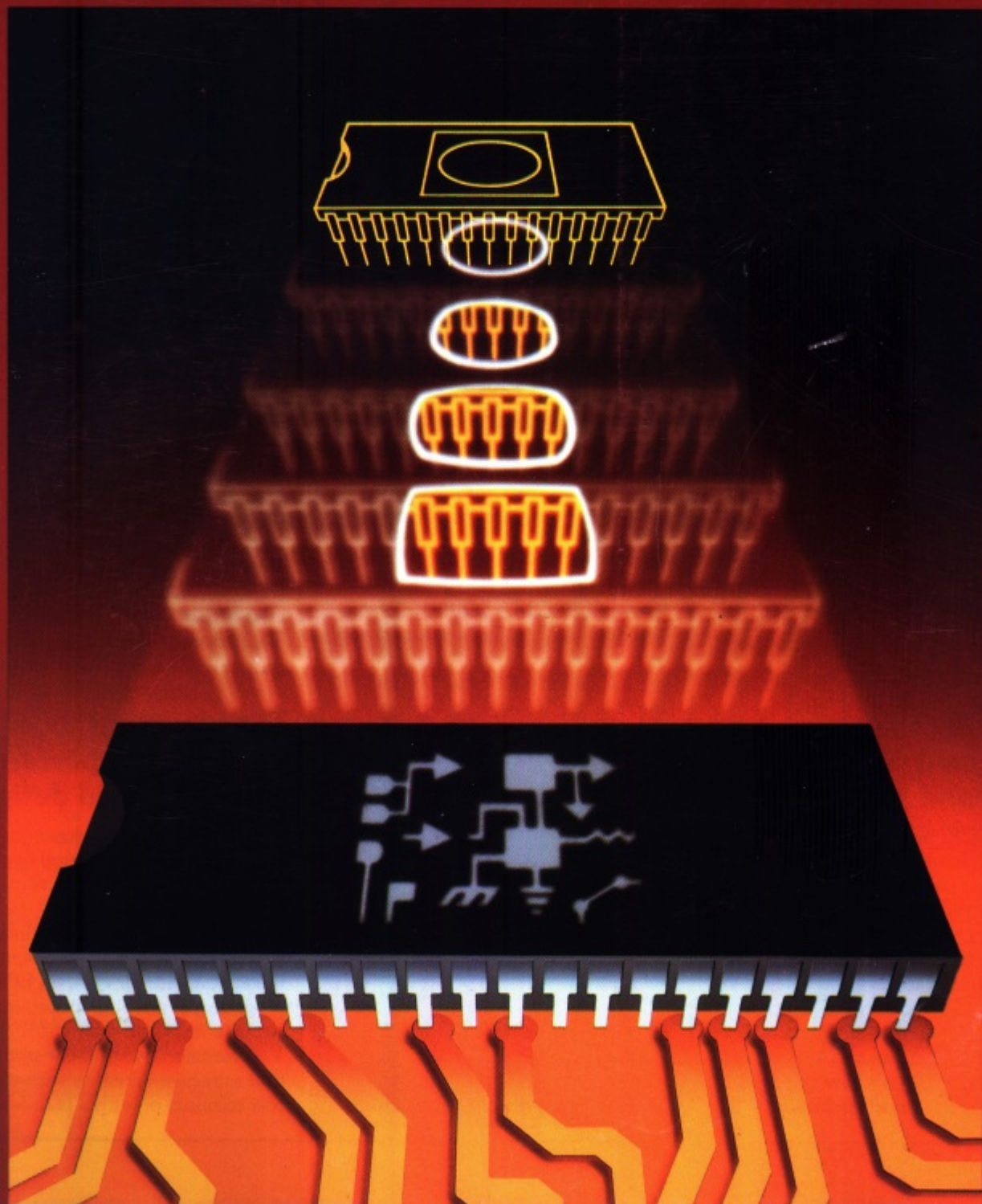# TEXAS INSTRUMENTS
CMOS EPROM
8-BIT MCUs

Providing you with total design and manufacturing control.

EPROM microcontrollers -for every application.

Featuring a full 8192 bytes of on-chip EPROM capability, the TMS77C82 family of microcontrollers from Texas Instruments provide an extensive range of user benefits. The original architecture results in true 8K-byte EPROMs which are totally hardware and software compatible with most of the CMOS TMS7000 products.

The windowed versions are ideally suited to prototyping and low volume applications. Windowless versions are available for medium volume applications. For high volume requirements, applications may be easily converted to masked versions. All of these different versions give the 8 bit MCU applications access to single chip controller capabilities.
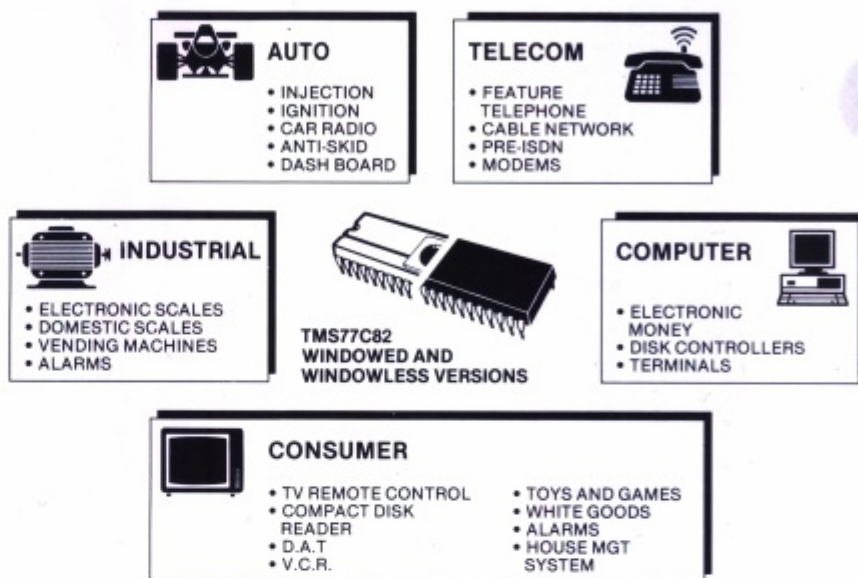
The CMOS capability, with its very low power consumption in both operating and halt modes, enables these units to be totally adaptive to many types of applications. These include telecommunications, consumer products, and many industrial and automotive uses. Full flexibility is available at all stages of system development. This provides total control for the user at each step, by decreasing system and development costs and accelerating the time to market.

The introduction of this product line emphasizes Texas Instruments commitment to a continuing effort to deliver more and more EPROM-on-chip capabilities to its clients.

Flexible solutions that save you time and money.

TMS77C82 products provide cost-effective solutions. The EPROM flexibility offers significant benefits where a rapid response is required to adapt a product for the market. This is especially important where masking leadtimes could mean delayed business. For example, software that requires regular updating to incorporate new features and keep ahead of competition, or where products need updating in the field.

TMS77C82 application spectrum

AUTO
- INJECTION
- IGNITION
- CAR RADIO
- ANTI-SKID
- DASH BOARD

TELECOM
- FEATURE TELEPHONE
- CABLE NETWORK
- PRE-ISDN
- MODEMS

INDUSTRIAL
- ELECTRONIC SCALES
- DOMESTIC SCALES
- VENDING MACHINES
- ALARMS

TMS77C82 WINDOWED AND WINDOWLESS VERSIONS

COMPUTER
- ELECTRONIC MONEY
- DISK CONTROLLERS
- TERMINALS

CONSUMER
- TV REMOTE CONTROL
- COMPACT DISK READER
- D.A.T
- V.C.R.
- TOYS AND GAMES
- WHITE GOODS
- ALARMS
- HOUSE MGT SYSTEM

Advanced design provides significant benefits.

The on-board features of the TMS77C82 products mean that the need for glue logic and external components can be eliminated to provide access to single chip controller capabilities.

On-chip functions include 8K-bytes of EPROM, 256K-bytes of static RAM and 32 I/O lines configured as four 8-bit ports that can be memory mapped for easy addressing. There is an on-chip serial communication port and three timers, with 2 cascadable 21-bit timers and a 10-bit timer. The interrupt structure is fully programmable with edge/level and rising/falling edge software options.

TMS77C82 products are all processed in 2-micron silicon gate CMOS with a clock frequency of 6 MHz. They are available in surface mount and dual in-line packages.

Design engineers have the option of prototyping with a ceramic 40-pin dual-in-line or 44-pin ceramic chip carrier package. These packages have a quartz window to allow the EPROM to be erased for reprogramming. The EPROM which is used on the TMS77C82 products is the TMS27C64 equivalent. Using a 40-pin to 28-pin adapter, it can be programmed on any EPROM programmer.

In production volumes, a choice of three low-cost packages are available. In dual-in-line, there are 40-pin standard or 40-pin shrunk packages. In surface mount, a 44-pin plastic chip carrier (PLCC) is available. These devices may be programmed once only (OT PROM).

Development tools and total support for easy and rapid design.

A broad range of development aids makes it easy to get started in evaluation and design of projects using TMS77C82 products.

A low-cost Starter Kit includes an evaluation module, cross-assembler/linker software for PCs, an EPROM programmer adaptor socket, in-circuit connector, and RS232 port. This forms a development station that may be used either with a low-cost terminal or with a PC.

It provides a convenient way of becoming familiar with the product, as well as enabling software development and debugging.

For designers who require higher design productivity, host-independent development facilities are available in a wide range of X-assemblers and the XDS Model 22 (Extended Development System™). The XDS features EIA-RS232 link capability to provide connection to host computers for object code downloading prior to real-time emulations.

The variety of development software packages covers Cross-assemblers and Linkers that are compatible with DEC™ VAX™ (VMS operating system) and personal computers (MS™-DOS operating system). In addition, a C-compiler is available for TI and IBM® PCs, which significantly enlarges software development facilities.

A complete set of technical literature, including comprehensive data sheets, data books, and a User's Guide are also available. To obtain additional information on any of these products, or for assistance with your application development, please refer to the response card.

Special customer assistance program.

In order to furnish close customer support, Texas Instruments has put in place a special program in which its European network of authorized distributors will supply assistance to small and medium-sized customers in all market segments. This provides immediate availability at each step of development and production phases for evaluation and design tools, chips, technical literature and other support requirements.

77C82 Starter Kit

To get started now.

If you would like to get an immediate start on your application development, contact an authorized Texas Instruments distributor, or your nearest TI sales office, referencing the product names and part numbers that you require.
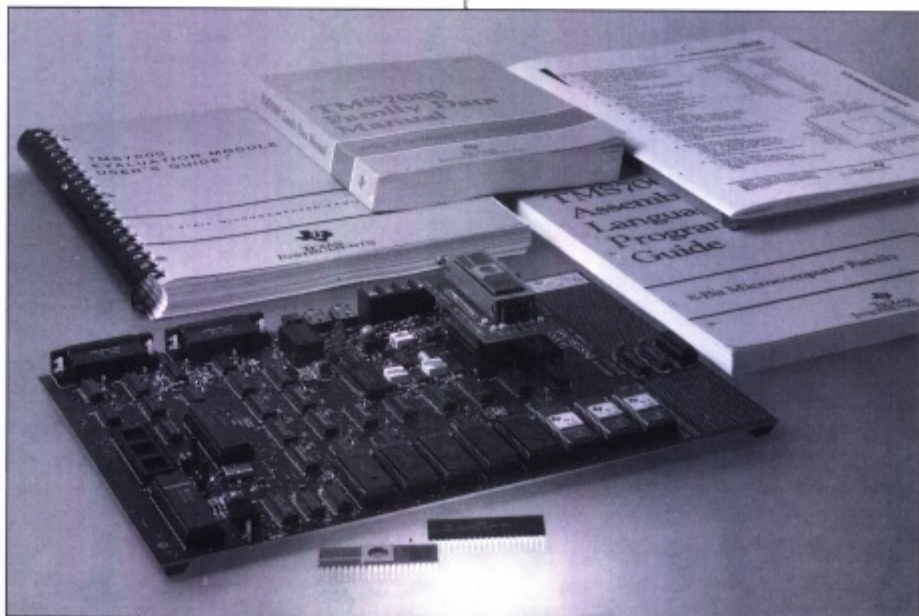
Description	Part Number
1. Product	
Windowed DIL J pack	TMP77C82 JDL
Windowed LCC J pack	TMP77C82 FDL
Windowless DIL plastic pack	TMS77C82 NL
Windowless DIL plastic shrunk pack	TMS77C82 N2L
Windowless PLCC	TMS77C82 FNL
(Same packaging available on 77C82A versions)	
2. Development Support	
Full starter kit for 77C82	Kit 77C82 PC
Evaluation module for CMOS TMS 7000's	RTC/EVM7000C-1
Programmer adaptator socket	RTC/PGMC82A-06
X'assembler/linker for PC's	TMDS7040810-02
X'assembler/linker for VAX	TMDS7040210-08
XDS model 22 for CMOS TMS7000	TMDX70622A1

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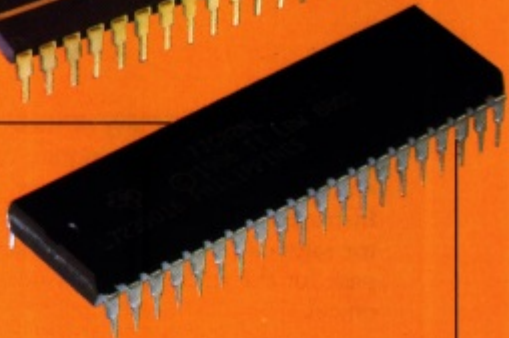Telex : 332633 MITEX I

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TEXAS
INSTRUMENTS

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Windowless DIL plastic pack	TMS77C82 NL ☐
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(Same packaging available on 77C82A versions)	

Description	Part Number
Development Support	
Full starter kit for 77C82	Kit 77C82 PC ☐
Evaluation module for CMOS TMS7000's	RTC/EVM7000C-1 ☐
Programmer adaptator socket	RTC/PGMC82A-06 ☐
X'assembler/linker for PC's	TMDS7040810-02 ☐
X'assembler/linker for VAX	TMDS7040210-08 ☐
XDS model 22 for CMOS TMS7000	TMDX70622A1 ☐

For information on any of these products, complete the inquiry card and send it to your local Texas Instruments or authorized distributor sales office (see listing on back page for the address of your nearest office).

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Company _____ Telephone _____

Adress _____

Post Code _____ City _____ Country _____