



INTERNATIONAL CMOS
TECHNOLOGY, INC.

Product Preview

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PEEL™ 20CG10-12/PEEL™ 20CG10-15 CMOS Programmable Electrically Erasable Logic Device

Features

- **1 Micron CMOS EEPROM Technology**
- **Low Power Consumption**
 - 105mA + 0.5mA/MHz max
- **Ultra High Performance**
 - 20CG10-12 t_{PD} = 12ns
 - 20CG10-15 t_{PD} = 15ns
- **EE Reprogrammability**
 - Low risk reprogrammable inventory
 - Superior programming and functional yield
 - Erases and programs in seconds
- **Development and Programming Support**
 - Third-party software and programmers
 - ICT PEEL Development System with APEEL™ Logic Assembler
- **Architectural Flexibility**
 - 92 product term X 44 input AND array
 - Up to 22 inputs and 10 outputs
 - Independently programmable 12-configuration I/O macrocells
 - Synchronous preset, asynchronous clear
 - Independently programmable output enables
- **Application Versatility**
 - Replaces random SSI/MSI logic
 - Emulates 24-pin bipolar PAL devices
 - Convert 24-pin PAL and EPLD designs with ICT software
 - Superset compatible with the CMOS PALC20G10

General Description

The ICT PEEL20CG10-12 or PEEL20CG10-15 is a CMOS Programmable Electrically Erasable Logic Device that provides a high-performance, low-power, reprogrammable, and architecturally enhanced alternative to conventional programmable logic devices (PLDs). Designed in advanced CMOS EEPROM technology, the PEEL20CG10 rivals speed parameters of comparable bipolar PLDs while dramatically improving power consumption. EE reprogrammability allows for cost effective plastic packaging, low risk inventory, reduced development and retrofit costs, and enhanced testability to ensure 100% field programmability and function.

The PEEL20CG10's flexible architecture and ICT's JEDEC file translator allows the PEEL20CG10 to replace bipolar 24-pin PAL devices without the need to rework the existing design. Applications for the PEEL20CG10 include: replacement of random SSI/MSI logic circuitry; emulation of 24-pin bipolar PAL devices; and user customized sequential and combinatorial functions such as counters, shift registers, state machines, address decoders, multiplexers, etc. Development and programming support for the PEEL20CG10 is provided by ICT and third-party manufacturers.

