

iC3000GT

The Compact Development System

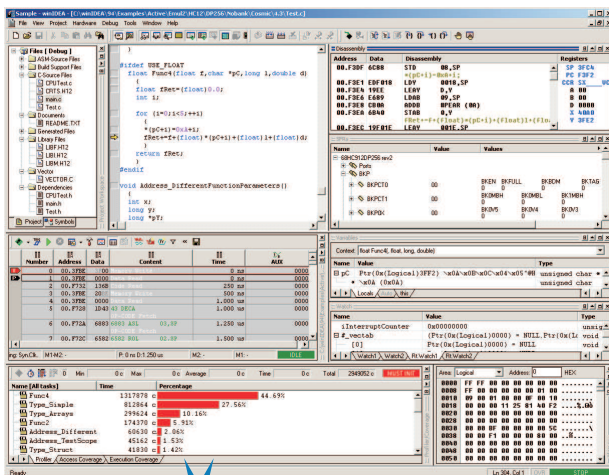
The iC3000GT ActiveEmulator™ is a development tool for high performance microcontroller based embedded application development. It supports all famous on-chip emulation technologies like BDM, SDI, Once, JTAG and Nexus for on-chip debugging. For on-chip trace ETM, Nexus and proprietary trace solutions are available.

It may also be configured to support comprehensive, real-time high-speed in-circuit emulation up to 100MHz bus speed using iSYSTEM's unique ActivePOD™ technology.

The "swap the card" technology preserves the investment in the iC3000GT unit while providing adaptability to a wide range of target MCUs and debug methodologies.



iC3000GT - For High-Speed Upload and Upload While Sampling (see next page)



winIDEA - the powerful Integrated Development Environment

iC3000GT - the compact emulator

The iC3000GT ActiveEmulator is the latest in a long line of universal development tools from iSYSTEM. Utilizing SMD technology and highly integrated FPGAs, the iC3000GT packs plenty of powerful innovations in a small, compact package. It is the ideal solution for mobile applications and desktop use as well.

iC3000GT ActiveEmulator Features:

- ▶ On-Chip Debug
- ▶ On-Chip Trace
- ▶ In-Circuit Emulation
- ▶ Real-Time Trace
- ▶ Upload while sampling
- ▶ Hardware & Software breakpoints
- ▶ Variable clock speed
- ▶ Multiple voltage interface (1.8V-5V)
- ▶ Multi processor support
- ▶ Flash programming
- ▶ PC-Host interface: USB2.0, Ethernet TCP/IP (100 Mbit/s)
- ▶ Power supply: 8-24V DC / 90-240V AC
- ▶ Ideal for mobile operation
- ▶ Compact size: 26*92*120mm
- ▶ winIDEA Integrated Development Environment



iSYSTEM
www.isystem.com

iC3000GT

The Compact Development System

iC3000GT accepts direct input of DC 24V, or AC power 90 - 240V with the supplied external auto sensing power supply. High speed communication to the host PC is essential for optimum performance. The iC3000GT is equipped with a USB2.0 interface. An Ethernet IEEE 802.3 interface (RJ45 / 100Mbps) supporting the TCP/IP protocol is also available.



To maximize flexibility in communicating with the target system, iC3000GT includes a small card slot. The slot accepts iCARD, iTRACE and ActiveEmulator interface cards. For on-chip emulation support the iCARD interfaces to all the famous on-chip debug interfaces like BDM, SDI, OnCE, JTAG and Nexus. iSYSTEM has developed an iCARD for each supported micro controller family. Simply "swap the card" to support a new MC family. The iTRACE plug-in card is universal and makes extensive on-chip trace support available. Different active target adapters for ARM's Embedded Trace Macro cell (ETM) interface and the standardised NEXUS trace interface make the connection to the target system simple. iTRACE does include the corresponding on-chip debug interface as well. For ease of use and durability, the slot and cards are the same size and form factor as the familiar PCMCIA technology. Standard features include: hot-insert to the target while the target is running, on-chip programming, in-system programming, and generation of programming voltage.

ActivePOD™ High-speed in-circuit emulation



The ActiveEmulator interface card connects the iC3000GT with an ActivePOD for full real-time in-circuit emulation and trace.

The ActivePOD provides real-time high-speed in-circuit emulation up to 100MHz bus speed. The dramatic increase in embedded systems bus speeds has created new challenges for real-time emulation. iSYSTEM has met the challenge by developing its all-new ActivePOD technology, which brings much of the emulation hardware closer to the target system.

All critical functions such as overlay memory, break, trace and trigger logic reside in a single high-speed RAM-based FPGA at the ActivePOD. This "system on chip" integration assures very short timing delays for all necessary transactions. The ActivePOD is connected to an iCARD which in turn is plugged into the PCMCIA-style slot on the compact iC3000GT emulator clean and simple.

Upload while sampling

The 'Upload while sampling' feature enables the user to upload trace data continuously with a maximum speed of 50 MB/s via USB2.0. The trace memory is in this case working as a buffer (FIFO) where the data is only saved for a short time before they are sent out to the PC. The user can extend tracing / profiling up to endless as long as the average sampled data is below the maximum PC upload speed.

iC3000GT ActiveEmulator and winIDEA

The iC3000GT ActiveEmulator is a universal and adaptable high-end debugger solution for high performance applications. By swapping the iCARD and ActivePOD, the system is reconfigured for an alternate target microcontroller, preserving your investment in the basic iC3000GT system. Likewise, the software interface to the iC3000GT is also adaptable. The winIDEA integrated development environment includes project management, integration of all popular compilers/assemblers, make & build, and debugger. One easy-to-use interface for all your embedded development needs.

iC3000GT Device Support

iC3000GT currently supports the following micro-controller families.

On-Chip Debug Support:

68HC12	MAC7x00	MSP430
683xx	M-CORE	PPC4xx
ARC	MC9S12(X)	PPC7xx
ARM7	MPC5xx	V850
ARM9	MPC6xx	XC166/XC2000
ARM Cortex	MPC7xx	XC800
Coldfire	MPC8xx	XScale
CR16 / CRX	MPC55xx	
HCS08	MPC85xx	

On-Chip Trace Support:

ARM7	CR16 / CRX	MPC55xx
ARM9	HCS08	MSP430
ARM Cortex	MC9S12(X)	PPC4xx
Coldfire	MPC5xx	XScale

ActivePOD Support:

68HC08	CoolIRISC	TMS470
68HC12	COP8	V850
68K	MC9S12(X)	VCT38xx
78K0	SDA55xx	

More information at www.isystem.com