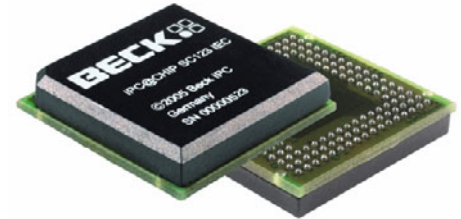


SC123 / SC143

The SC123/SC143 is an embedded web controller developed for the industrial control and communication market. It includes processor, RAM and FLASH memory, Ethernet and serial interfaces, a complete microcontroller interface with address/data bus, programmable chip selects and GPIO.

This ready to use embedded platform comes with a preinstalled realtime multitasking operating system with complete TCP/IP stack, a file system and a large application interface.



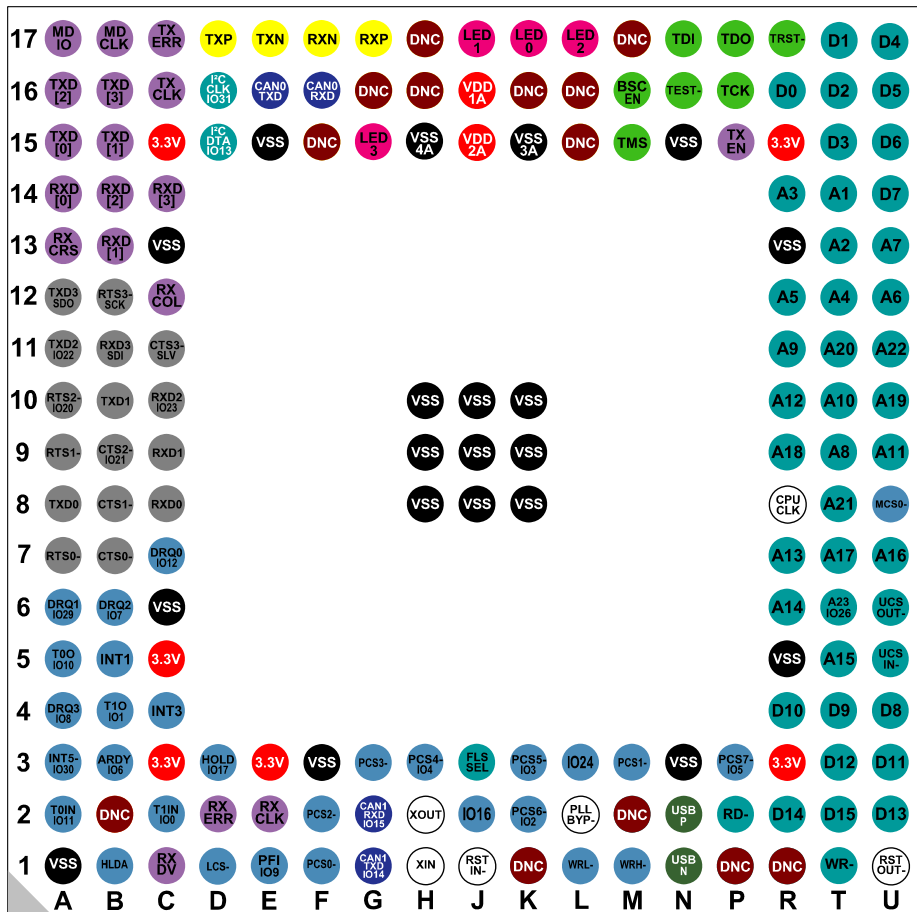
Technical data

Processor	SC186-EX/96 MHz
Working memory (SDRAM)	8MB SDRAM (free user space see API documentation)
Flash memory for operating system and internal File System	2 or 8 MB FLASH (free user space see API documentation)
Asynchronous serial	4xRS232/TTL port (RxD, TxD, RTS, CTS with DMA)
Ethernet	2 x 10/100BaseT (1xPHY + 1xMII)
I/O	31 GPIO, Intel 24 Bit Address, 16 Bit Data Bus
Supply voltage	3,3 V +/-5%
Power dissipation	< 2 W
Operating temperature (T _A)	-25°C to +85°C
Storage temperature	-55°C to +125°C
Operating system	IPC@CHIP RTOS
Footprint	PBGA177, 1.27 Pitch, lead free/ RoHS conform

Features

- » Eight programmable Chip Selects with 512-byte I/O space
- » Four asynchronous serial ports
- » FLASH memory with min. 100.000 write cycles
- » Full integrated 10/100Base-T transceiver (IEEE 802.3 standard)
- » Four traffic LED outputs
- » One I²C-bus (hardware)
- » One SPI-bus (hardware)
- » One USB 1.1 port (host and device)
- » Two CAN2.0B ports
- » Internal watchdog
- » Four independent external DMA channels
- » Two independent programmable Timers
- » Three Interrupt inputs

Pin Configuration

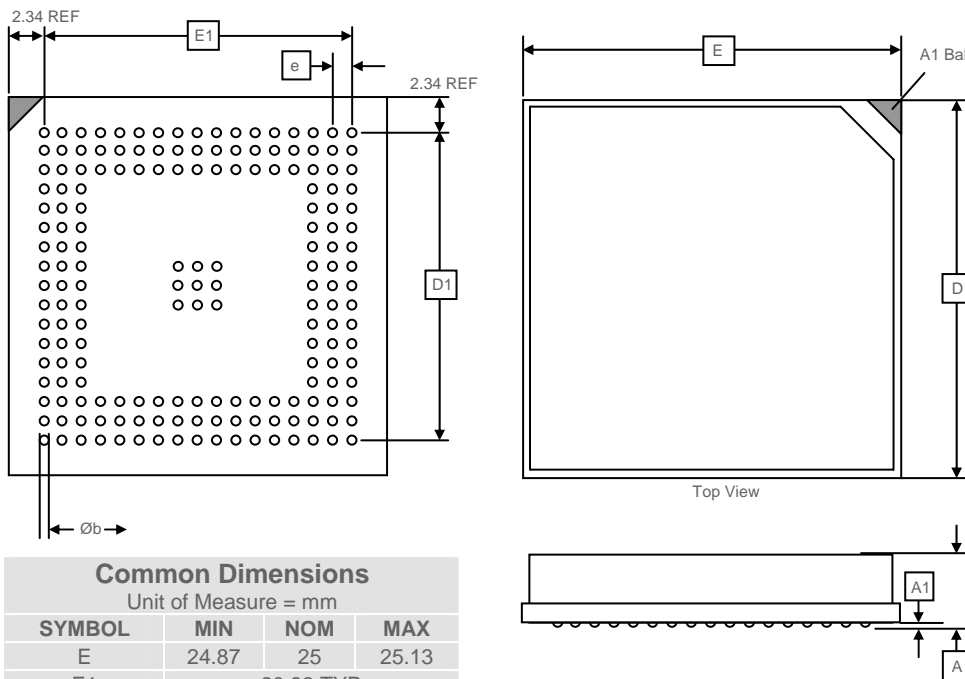


Ball Grid Array Looking through Top of Package

Groups of signals:

- V_{CC}
- MII-Interface
- GND
- Ethernet LEDs
- Crystal, Reset
- CAN Bus
- Adress-/Databus
- I2C Bus
- Chip Selects, Interrupts, Timer, etc.
- USB
- Serial Ports
- Do not connect !
- Ethernet

Package dimensions



Design and handling guidelines

Moisture sensitivity: J-STD-20C; Level 3
Pb free reflow process: J-STD-20C;
250°C+0°C



Electrostatic
Sensitive Device

Ordering information

Available configurations:

SC123-LF SC143
SC123-IEC-LF SC143-IEC
 SC143-LF
 SC143-IEC-LF

IPC@CHIP SCxxx-F-yyy-LF

- RoHS-compliant variant
- Software components
- Unencapsulated variant (without housing)
- Hardware and designs
- Single chip