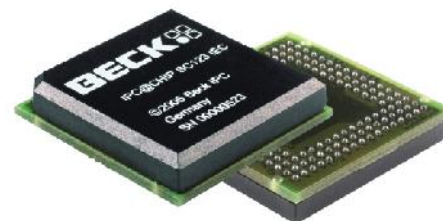


Datasheet: SC123 / SC143

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.



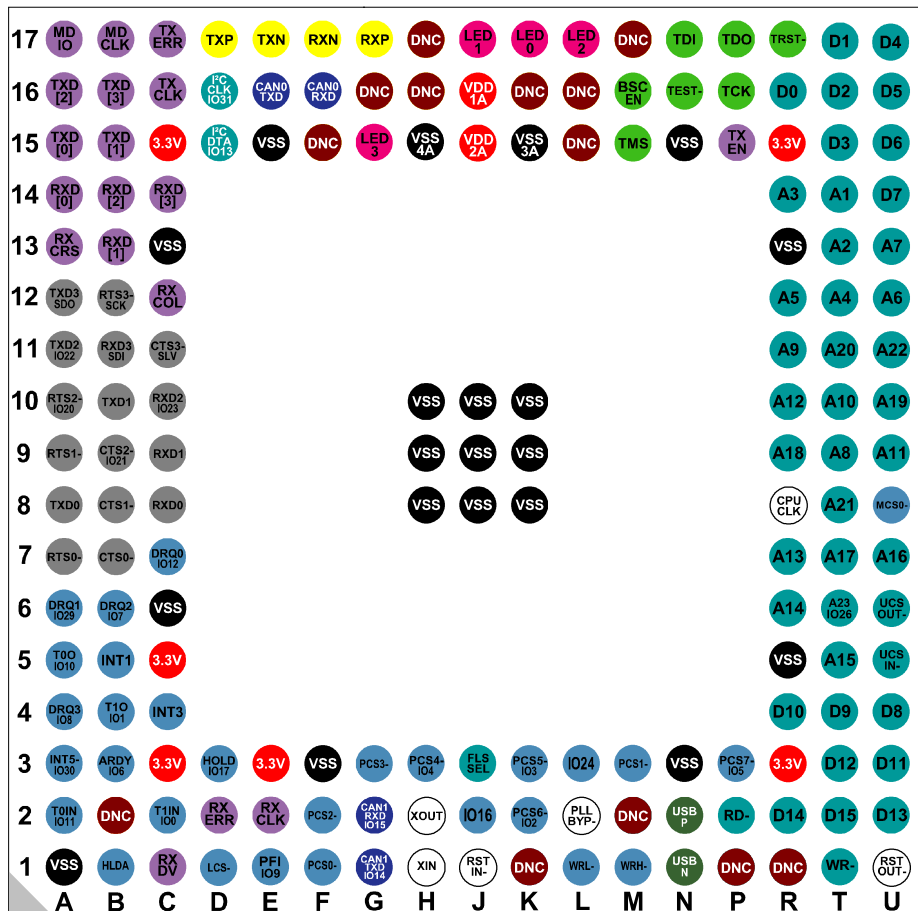
Technical data

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	» One SPI-bus (hardware)
» Four asynchronous serial ports	» One USB 1.1 port (host and device)
» FLASH memory with min. 100.000 write cycles	» Two CAN2.0B ports
» Full integrated 10/100Base-T transceiver (IEEE 802.3 standard)	» Internal watchdog
» Four traffic LED outputs	» Four independent external DMA channels
» One I ² C-bus (hardware)	» Two independent programmable Timers
	» Three Interrupt inputs

Pin Configuration

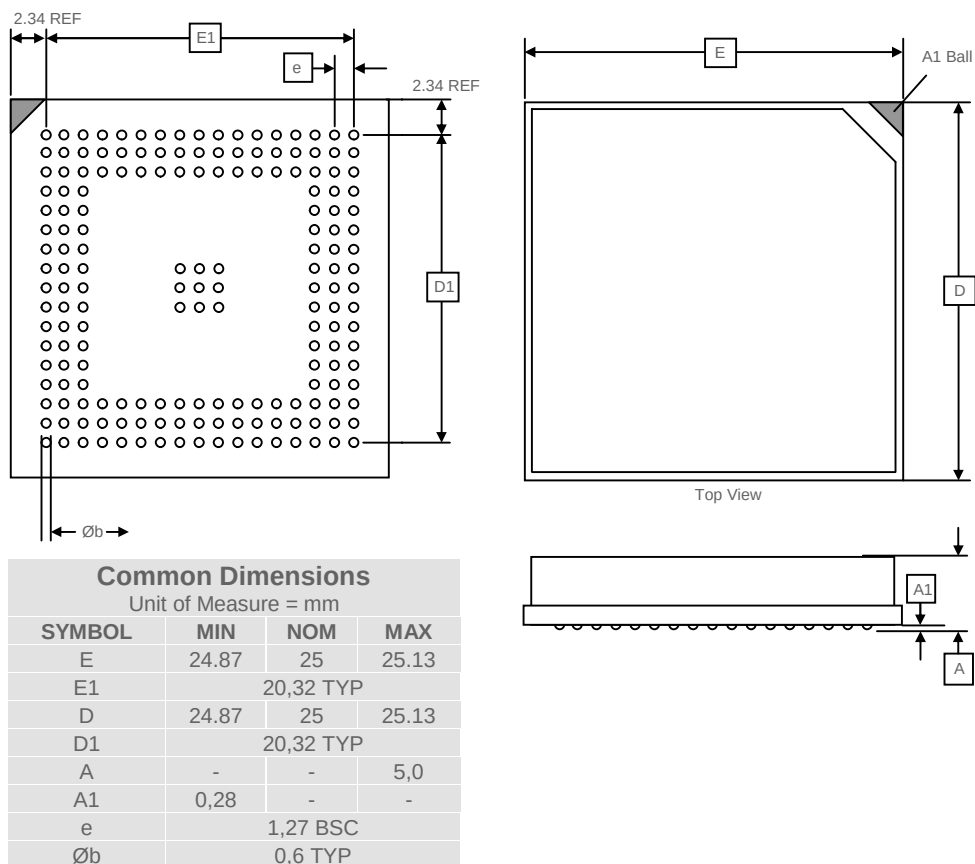


Ball Grid Array Looking through Top of Package

Groups of signals:

- | | |
|---------------------------------------|----------------------|
| V _{CC} | MII-Interface |
| GND | Ethernet LEDs |
| Crystal, Reset | CAN Bus |
| Address-/Databus | I ² C 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

IPC@CHIP SC xxx -F - yyy - LF

RoHs comaliant variant
Software licence
Unencapsulated variant (without housing)
Flash size
Single Chip

SC123-LF	00543257	SC123-IEC-LF	00543259
SC143-LF	00543258	SC143-IEC-LF	00543260
		SC143-PIS-LF	00570582