

Datasheet: SC23/SC24

The SC23 / SC24 is an embedded web controller developed for the industrial control and communication market.

It includes processor, RAM and FLASH memory, Ethernet and several serial interfaces, system clock generation 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	3xRS232/TTL port (RxD, TxD, RTS, CTS with DMA)
Ethernet	1 x 10/100BaseT
I/O	17 GPIO
Supply voltage	3,3 V +/-5%
Power dissipation	< 1 W
Operating temperature (T _A)	-25°C to +85°C
Storage temperature	-55°C to +125°C
Operating system	IPC@CHIP [®] RTOS
Footprint	DIL32

Features

» three asynchronous serial ports	» One SPI-bus (hardware)
» FLASH memory with min. 100.000 write cycles	» One USB 1.1 port (host and device)
» Full integrated 10/100Base-T transceiver (IEEE 802.3 standard)	» Two CAN2.0B ports
» One I ² C-bus (hardware)	» Internal watchdog with power supervisory
» 25MHz crystal + PLL	» Two independent programmable Timers
	» Three Interrupt inputs

Pin Configuration

RXD1	1	 IPC@CHIP® SC2x	32	PIO9 / PFI
TXD1	2		31	PIO0 / INT5# / TMRIN1
PIO12 / CTS1	3		30	PIO1 / INT3 / TMROUT1
RTS1	4		29	PIO10 / TMROUT0
PIO22 / TXD2	5		28	PIO11 / TMRIN0
PIO23 / RXD2	6		27	PIO2 / INT1
PIO21 / CANRXD1 / CTS2	7		26	RSTOUT#
PIO20 / CANTXD1 / RTS2	8		25	PIO31 / I ² CCLK
PIO28 / SDI / RXD3	9		24	PIO13 / I ² CDA
PIO27 / SDO / TXD3	10		23	CANRXD0
PIO19 / SCK / RTS3	11		22	CANTXD0
PIO18 / SLVSEL / CTS3	12		21	TPRX-
USBP	13		20	TPRX+
USBN	14		19	TPTX-
VCC	15		18	TPTX+
GND	16		17	RESETIN / Traffic LED

Physical dimensions

20,10 x 42,30 x 12 mm

Design and handling guidelines

A DIL32 socket must be used within a wave soldering process or a reflow soldering process.



Electrostatic
Sensitive Device

The SC2x should not be plugged in the socket during the soldering process.

Ordering information / Order-No.:

SC23	553944
SC23-IEC	553945
SC24	566821
SC24-IEC	566822