Industrial UART Product Line Chart

# Ch.	Part (Technology)	Rx/Tx FIFO Bytes	Speed (max @16x)	Interrupt	Vcc	Key Features	Package	Part number Temp Range 0° to 70° C	Part number Temp Range -40° to 85° C
1	SCC2691 (CMOS)	3/1	125 kbps	Normal	5V	- Single channel version of SCC2692 - Intel bus interface compatible	DIL24	SCC2691AC1N24	SCC2691AE1N24
							SOL24	SCC2691AC1D24	—
							PLCC28	SCC2691AC1A28	SCC2691AE1A28
1	SC28L91 (CMOS)	16/16 or 8/8	1000 kbps	Normal Multi level Vectored IACK/DACK	5V or 3.3V	- Single channel version of SC28L92 - Pin select for Intel or Motorola buses interface compatible	PLCC44	—	SC28L91A1A
							QFP44	—	SC28L91A1B
2	SCC2681 (CMOS)	3/1	125 kbps	Normal	5V	- CMOS version of SCN2681	DIL28	SCC2681AC1N28	SCC2681AE1N28
							DIL40	SCC2681AC1N40	SCC2681AE1N40
							PLCC44	SCC2681AC1A44	SCC2681AE1A44
2	SCC68681 (CMOS)	3/1	125 kbps	Normal Vectored	5V	- CMOS version of SCN68681	DIL40	SCC68681AC1N40	SCC68681AE1N40
							PLCC44	SCC68681AC1A44	SCC68681AE1A44
2	SCC2681T (CMOS)	3/1	500 kbps	Normal	5V	- CMOS version of SCN2681T	PLCC44	SCC2681TC1A44	—
2	SCC2692 (CMOS)	3/1	125 kbps	Normal	5V	- Intel bus interface compatible	DIL28	SCC2692AC1N28	SCC2692AE1N28
							DIL40	SCC2692AC1N40	SCC2692AE1N40
							PLCC44	SCC2692AC1A44	SCC2692AE1A44
							QFP44	SCC2692AC1B44	SCC2692AE1B44
2	SCC68692 (CMOS)	3/1	125 kbps	Normal Vectored IACK/DACK	5V	- Motorola bus interface compatible	DIL40	SCC68692C1N40	SCC68692E1N40
							PLCC44	SCC68692C1A44	SCC68692E1A44
2	SC26C92 (CMOS)	8/8	1000 kbps	Normal Multi level	5V	- Enhanced faster version of SCC2692 - Intel bus interface compatible	DIL40	SC26C92C1N	SC26C92A1N
							PLCC44	SC26C92C1A	SC26C92A1A
							QFP44	SC26C92C1B	SC26C92A1B
2	SC28L92 (CMOS)	16/16 or 8/8	1000 kbps	Normal Multi level Vectored IACK/DACK	5V or 3.3V	- Enhanced faster low voltage version of SC26C92 - Pin select for Intel or Motorola buses interface compatible	PLCC44	—	SC28L92A1A
							QFP44	—	SC28L92A1B
2	SC28L202 (CMOS)	256/256	3125 kbps	Normal Multi level IACK/DACK I2A	5V or 3.3V	- Enhanced faster version of SC28L92 - Advanced feature set - Pin select for Intel or Motorola buses interface compatible - Asynchronous bus operation up to 50Mhz (5V) and up to 34MHz (3.3V) - Character count mode - Programmable FIFO interrupt level - Real time data error detection	TSSOP56	—	SC28L202A1DGG
4	SC28C94 (CMOS)	8/8	1000 kbps	Normal Multi level IACK/DACK I2A	5V	- Enhanced Quad version of SC26C92 - Intel or Motorola buses interface compatible - Versatile, programmable high speed interrupt controller	PLCC52	—	SC28C94A1A
4	SC28L194 (CMOS)	16/16	1000 kbps	Normal Multi level IACK/DACK I2A	5V or 3.3V	- Enhanced faster low voltage version of SC28C94 - Advanced feature set - Asynchronous bus operation up to 33Mhz (5V) and up to 20MHz (3.3V)	PLCC68	—	SC28L194A1A
							LQFP80	—	SC28L194A1BE
8	SCC2698B (CMOS)	3/1	125 kbps	Normal	5V	- Equivalent of four SCC2692 in a single package - Intel bus interface compatible	PLCC84	SCC2698BC1A84	SCC2698BE1A84
8	SC28L198 (CMOS)	16/16	1000 kbps	Normal Multi level IACK/DACK I2A	5V or 3.3V	- Enhanced faster low voltage version of SCC2698 - Advanced feature set - Asynchronous bus operation up to 33Mhz (5V) and up to 20MHz (3.3V)	PLCC84	—	SC28L198A1A
							LQFP100	—	SC28L198A1BE

Basic feature applies to all industrial UARTs
- Full duplex on all channels
- Receivers and transmitters are fully independent with respect to clock speed, clock source and operation mode
- 14.4, 28.8, 57.6, 115.2K baud
- Individual interrupt status
- Counter timers have independent programmable clock source and dual mode
- Modem or flow control pins with change of state detectors
- Wake-up mode for auto RS485 support
- Devices have power-down mode
- Programmable data formats and channel modes

Advanced feature set
- Intel and Motorola buses interface compatible
- Xon/Xoff in band flow control
- Three bytes character recognition
- Intelligent Interrupt Arbitration (I2A)
- Two 16-bit custom baud rate generators

PHILIPS

16CxxxB UART Product Line Chart

# Ch	FIFO # bytes	Exar	TI	National	Temp	Package*	Philips	Key Features
1	0	ST16C450CP40 / ST16C450IP40	TL16C450N	—	C I	DIP40	SC16C550BIN40	• SC16C550B starts up in 16C450 (non FIFO) mode • 3 Mbps transmit/receive operation • 16 byte transmit and receive FIFO • Programmable receive FIFO interrupt trigger levels • Automatic hardware flow control
		ST16C450CJ44 / ST16C450IJ44	TL16C450FN	—	C I	PLCC44	SC16C550BIA44	
		ST16C450CQ48 / ST16C450IQ48	—	—	C I	LQFP48	SC16C550BIB48	
	16	ST16C550CP40 / ST16C550IP40	TL16C550CN	PC16550DN	C I	DIP40	SC16C550BIN40	• 3 Mbps transmit/receive operation • 16 byte transmit and receive FIFO • Programmable receive FIFO interrupt trigger levels • Automatic hardware flow control
		ST16C550CJ44 / ST16C550IJ44	TL16C550CFN / TL16C550CIFN	PC16550DV / —	C I	PLCC44	SC16C550BIA44	
		—	TL16C550CPT/DPT / TL16C550CIPT/DIPT	—	C I	LQFP48	SC16C550BIB48	
		ST16C550CQ48 / ST16C550IQ48	TL16C550CPFB	—	C I	LQFP48	SC16C550BIB48	
	32	ST16C650ACP40 / ST16C650AIP40	—	—	C I	DIP40	SC16C650BIN40	• 3 Mbps transmit/receive operation • 32 byte transmit and receive FIFO • Programmable receive and transmit FIFO interrupt trigger levels • Xon/Xoff in band flow control • Automatic hardware and software flow control • Standard mode • IrDA interface
		ST16C650ACJ44 / ST16C650AIJ44	—	—	C I	PLCC44	SC16C650BIA44	
		ST16C650ACQ48 / ST16C650AIQ48	—	—	C I	LQFP48	SC16C650BIB48	
		—	—	—	I	HVQFN32	SC16C650BIBS	
	64	—	TL16C750FN	—	C	PLCC44	SC16C750BIA44	• 3Mbps transmit and receive operation • 64 byte transmit and receive FIFOs • Programmable Interrupt trigger levels • Hardware (RTS/CTS) flow control • Power down mode (sleep) • Prioritized Interrupt System control
		—	TL16C750PM / TL16C750IPM	—	C I	LQFP64	SC16C750BIB64	
		—	—	—	I	HVQFN32	SC16C750BIBS	
2	0	ST16C2450CP40 / ST16C2450IP40	—	—	C I	DIP40	SC16C2550BIN40	• SC16C2550B starts up in 16C2450 (non FIFO) mode. • 5 Mbps transmit/receive operation • 16 byte transmit and receive FIFO • Programmable receive FIFO interrupt trigger levels
		ST16C2450CJ44 / ST16C2450IJ44 / XR16L2450IJ	—	—	C I	PLCC44	SC16C2550BIA44	
		ST16C2450CQ48 / ST16C2450IQ48 / XR16L2450IM	—	—	C I	LQFP48	SC16C2550BIB48	
	16	ST16C2550CP40 / ST16C2550IP40	—	—	C I	DIP40	SC16C2550BIN40	• Two channel version of the SC16C550B • 5 Mbps transmit/receive operation • 16 byte transmit and receive FIFO • Programmable receive FIFO interrupt trigger levels
		ST16C2550CJ44 / ST16C2550IJ44	—	—	C I	PLCC44	SC16C2550BIA44	
		ST16C2550CQ48 / ST16C2550IQ48	—	—	C I	LQFP48	SC16C2550BIB48	
		ST16C2552CJ44 / ST16C2552IJ44	—	PC16552DV / —	C I	PLCC44	SC16C2552BIA44	• Two channel version of the SC16C550B • Registers for channel A and B can be written concurrently • 5 Mbps transmit and receive operation
	32	—	—	—	I	LQFP48	SC16C652BIB48	• Two channel version of the SC16C650B
		—	—	—	I	HVQFN32	SC16C652BIBS	
	64	—	TL16C752BPT	—	I	LQFP48	SC16C752BIB48	• Two channel version of the SC16C750B
		—	—	—	I	HVQFN32	SC16C752BIBS	
4	0	ST16C454CJ68 / ST16C454IJ68 / ST68C454CJ68 / ST68C454IJ68	—	—	C I C I	PLCC68	SC16C554DBIA68	• SC16C554B starts up in 16C454 (non FIFO) mode. • See SC16C554B features
	16	ST16C554CJ68 / ST16C554IJ68 / ST68C554CJ68 / ST68C554IJ68	—	—	C I C I	PLCC68	SC16C554BIA68	• Four channel version of the SC16C550B • 5Mbps transmit/receive operation • 16 byte transmit and receive FIFOs • Programmable interrupt trigger levels (receiver only) • Intel/Motorola (A68 version only) interface • SC16C554DB provides continuous interrupt • SC16C554B provides tri-stateable interrupt
		ST16C554DCJ68 / ST16C554DIJ68	TL16C554FN/AFN / TL16C554IFN/AIFN	—	C I	PLCC68	SC16C554DBIA68	
		—	TL16C554PN/APN / TL16C554IPN/AIPN	—	C I	LQFP80	SC16C554BIB80	
		ST16C554CQ64 / ST16C554IQ64 / ST68C554CQ64 / ST68C554IQ64	—	—	C I C I	LQPF64	SC16C554BIB64	
		ST16C554DCQ64 / ST16C554DIQ64	—	—	C I	LQPF64	SC16C554DBIB64	
	64	ST16C654CQ64 / ST16C654IQ64	—	—	C I	LQPF64	SC16C654BIB64	• Four channel version of the SC16C650B with 64 byte FIFOs • Motorola and Intel Interface (A68 version only) • 5Mbps transmit and receive operation • IrDA interface • Sleep mode • Programmable interrupt trigger levels • SC16C654DB provides continuous interrupt • SC16C654B provides tri-stateable interrupt
		ST16C654DCQ64 / ST16C654DIQ64	—	—	C I	LQPF64	SC16C654DBIB64	
		ST16C654CJ68 / ST16C654IJ68	—	—	C I	PLCC68	SC16C654BIA68	
		—	TL16C754BFN	—	I	PLCC68	SC16C754BIA68	• Four channel version of the SC16C750B • 5Mbps transmit and receive operation • 64 byte transmit and receive FIFOs • Programmable interrupt trigger levels • Hardware (RTS/CTS) and software (XON/XOFF) flow control • Power down mode (sleep)
		—	TL16C754BPN	—	I	LQFP80	SC16C754BIB80	

*TQFP and LQFP packages have the same footprint.
The TQFP package is 1 mm, the LQFP package is 1.4 mm height.
The Philips parts are available only in the LQPF version.
All Philips parts operate at: 2.5 V, 3.3 V, and 5 V
Philips UARTs are available in commercial and industrial temperature ranges.

Send technical questions to our email address at: datacom.tech-support@philips.com

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