

## I<sup>2</sup>C peripheral selection guide

### GENERAL PURPOSE ICs

#### LCD Drivers

<b>PCF8566</b>	96-segment LCD driver 1:1 – 1:4 Mux rates
<b>PCF8567</b>	LCD direct mode driver
<b>PCF8568</b>	LCD row driver for dot matrix displays
<b>PCF8569</b>	LCD Column driver for dot matrix displays
<b>PCF8576</b>	160-segment LCD driver 1:1 – 1:4 Mux rates
<b>PCF8577C</b>	64-segment LCD driver 1:1 – 1:2 Mux Rates
<b>PCF8578/79</b>	Row/column LCD dot-matrix driver/display 1:8 – 1:32 Mux rates

#### LED Drivers

<b>SAA1064</b>	4-digit LED driver
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#### I/O Expanders

<b>PCF8574/A</b>	8-bit remote I/O port (I <sup>2</sup> C-bus to parallel converter)
<b>PCF8584</b>	8-bit parallel to I <sup>2</sup> C converter
<b>SAA1300</b>	5-bit high-current driver

#### Data Converters

<b>PCF8591</b>	4-channel, 8-bit Mux ADC + one DAC
<b>TDA8442</b>	Quad 6-bit DAC
<b>TDA8444</b>	Octal 6-bit DAC

#### Memory

<b>PCA8581</b>	128-byte EEPROM
<b>PCF8570/C</b>	256-byte static RAM
<b>PCF8571</b>	128-byte static RAM
<b>PCF8582</b>	256-byte EEPROM
<b>PCF8583</b>	256-byte RAM/clock/calendar
<b>PCF8594</b>	512-byte EEPROM
<b>PCF8598</b>	1K-byte EEPROM

#### Clocks/Calendars

<b>PCF8573</b>	Clock/calendar
<b>PCF8583</b>	Clock/calendar/ 256-byte RAM

#### 68000-Based CMOS Microcontrollers

<b>68070</b>	68000 CPU/MMU/UART/ DMA/timer
<b>93CXXX</b>	UST/I <sup>2</sup> C/34k ROM/ 512 RAM

#### 80C51-Based CMOS Microcontrollers\*

<b>83CL267/167</b>	12k ROM, 256 RAM OSD
<b>83CL268/168</b>	12k ROM, 256 RAM OSD
<b>8XCL410</b>	4k ROM/128 RAM, low power
<b>8XC528</b>	32k ROM/512 RAM, T2, WD
<b>8XC542</b>	4k ROM/128 RAM, ACCESS.bus
<b>8XC552</b>	256-byte RAM/8k ROM/ ADC/UART/PWM
<b>8XCL580</b>	6k ROM, 256 RAM, low power
<b>8XC652</b>	256-byte RAM/8k ROM, UART
<b>8XC654</b>	256-byte RAM/16kROM, UART
<b>8XC751</b>	64-byte RAM/2k ROM
<b>8XC752</b>	64-byte RAM/2k ROM, ADC/PWM

#### 8048 Instruction-Set Based CMOS Microcontrollers

<b>PCF84C00</b>	256-byte RAM/bond-out version for prototype development
<b>PCF84C21</b>	64-byte RAM/2k ROM
<b>PCF84C41</b>	128-byte RAM/2k ROM
<b>PCF84C81</b>	256-byte RAM/8k ROM
<b>PCF84C85</b>	256-byte RAM/8k ROM/ Extended I/O
<b>PCF84C430</b>	128-byte RAM/4k ROM/ 96-segment LCD driver

#### MULTIMEDIA ICs

##### Desktop Videos

<b>SAA7151B</b>	8-bit digital multistandard TV decoder
<b>SAA7152</b>	Digital comb filter
<b>SAA7157</b>	Clock signal generation circuit for digital video systems; for use with SAA71xx
<b>SAA7165</b>	Video enhancement and D/A processor including digital CTI
<b>SAA7186</b>	Digital video scaler
<b>SAA7191</b>	Digital multistandard TV decoder, square pixel
<b>SAA7191B</b>	SAA7191 variant
<b>SAA7192A</b>	Digital colour space converter with independent LHT
<b>SAA7199B</b>	digital multistandard encoder

<b>SAA9051</b>	Digital multistandard (PAL/NTSC) colour decoder
<b>SAA9056</b>	Digital SECAM colour decoder
<b>SAA9057B</b>	Clock signal generation circuit for digital video systems; for use with SAA90xx
<b>SAA9065</b>	Video enhancement and D/A processor
<b>TDA4680</b>	Video processor
<b>TDA8440</b>	Video/audio switch

#### Video/Radio/Audio

<b>SAA4700</b>	VPS dataline processor
<b>SA5751</b>	Audio Processor/Filter Controller
<b>SAA5243</b>	Computer controlled text circuit
<b>SAA5246</b>	Computer controlled text circuit
<b>SAA5248</b>	Integrated teletext decoder and VPS slicer
<b>SAA5252</b>	Closed caption
<b>SAA7158</b>	Line frequency processor and DAC circuit
<b>SAA7194</b>	Digital video decoder/scaler
<b>SAA9042</b>	Digital video teletext (DVTB) processor
<b>SAB3035/36/37</b>	Digital tuning circuits for computer-controlled TV
<b>TDA1551</b>	2 X 22W BTL audio power amp
<b>TDA1551Q</b>	2 X 22W BTL audio power amp with diagnostic
<b>TDA4670</b>	Picture signal improvement circuit
<b>TDA4671</b>	Picture signal improvement circuit
<b>TDA4681</b>	Video processor with automatic cut-off and white level control
<b>TDA4685</b>	Video processor
<b>TDA4686</b>	Video processor (100 Hz)
<b>TDA4687</b>	Video processor
<b>TDA8415</b>	TV/VCR stereo/dual sound processor
<b>TDA8416</b>	TV/VCR stereo/dual sound processor
<b>TDA8417</b>	TV/VCR stereo/dual sound processor
<b>TDA8421</b>	Audio processor with a loudspeaker channel and a headphone channel
<b>TDA8425</b>	Audio processor with a loudspeaker channel only
<b>TDA8426</b>	Hi-fi stereo audio processor
<b>TDA8433</b>	TV deflection processor
<b>TDA8540</b>	4x4 video switch matrix

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### Video/Radio/Audio (Continued)

<b>TDA9140</b>	Alignment-free multistandard decoder
<b>TEA6320</b>	4 input Tone/volume controller with fader control
<b>TEA6330</b>	Tone/volume controller
<b>TSA6060</b>	A/M Frequency Synthesizer for RDS.
<b>TDA8433</b>	Deflection processor
<b>TDA8442</b>	Interface for color decoders
<b>TDA8443/A</b>	YUV/RGB matrix switch
<b>TDA8461</b>	PAL/NTSC color decoder and RGB processor
<b>TDA8466</b>	PAL/NTSC color decoder and RGB processor
<b>TDA9150</b>	Deflection processor
<b>TDA9860</b>	Sound controller w/ 4 inputs
<b>TEA6100</b>	FM/IF and digital tuning IC for computer-controlled radio
<b>TEA6300</b>	Sound fader control and preamplifier/source selector for car radio
<b>TSA5511/12/14</b>	PLL frequency synthesizer for TV
<b>TSA6057</b>	PLL frequency synthesizer for radio

### Telecom

<b>NE5750/51</b>	Audio processor pair
<b>NE5752</b>	3 V 5750 variant (samples Q4 92)
<b>NE5753</b>	3 V 5751 variant (samples Q4 92)
<b>PCD3311/12</b>	Tone generator (DTMF/modem/musical)
<b>PCD3341</b>	Advanced 10 to 110-number repertory dialer with LCD control
<b>PCD3343</b>	Microcontroller with 224-byte RAM/3k ROM
<b>PCD3348</b>	Microcontroller with 256-byte RAM/8k ROM
<b>PCD4440</b>	Analog voice scrambler/descrambler
<b>UMA1000T</b>	Data processor for mobile telephones
<b>UMA1014T</b>	1GHz frequency synthesizer for mobile telephones
<b>UMF1009</b>	Frequency synthesizer

\* Also available with extended temperature ranges.

**FOR FURTHER INFORMATION ON THESE DEVICES, REFER TO *I<sup>2</sup>C-PERIPHERALS FOR MICROCONTROLLERS DATA HANDBOOK*, AVAILABLE FROM YOUR LOCAL PHILIPS SEMICONDUCTORS SALES OFFICE (SEE INSIDE BACK COVER OF THIS BOOK).**