AUTOMOTIVE SOLUTIONS
SECURE INTERFACES & POWER

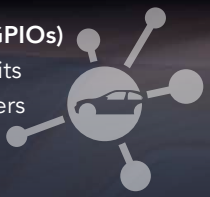
With more than 25 years of delivering superior, high-performance mixed-signal electronics to the automotive industry, NXP's robust portfolio of automotive-compliant products includes over 700 devices and solutions that enable breakthrough automotive designs.

LCD DRIVERS
- Instrument clusters
- Climate controls
- Tachographs
- Car radios
- Key fobs

REALTIME CLOCKS
- Tachographs
- Black boxes
- Battery Mgmt Units
- Navigation Systems
- Car Radios

LED CONTROLLERS
- Instrument clusters
- Dash boards
- Gauges / Tell Tales
- Car radios
- Climate Controls

IO EXPANDERS (GPIOs)
- Body Control Units
- Instrument Clusters
- Car radios



LEVEL TRANSLATORS
- Processor to peripherals in Infotainment Systems

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LCD DISPLAY DRIVERS

Products	Description	Type	VDD1 (Min - Max) (V)	VLCD (Min - Max) (V)	IDD [typ] (uA)	Interface	Temperature (Min - Max) (°C)	Package Version
PCA2117	Automotive LCD driver for character displays	Character Driver	2.5 to 5.5	4 to 16	120	I²C	-40 to +105	NAU000
PCA8539	100 x 18 Chip-On-Glass automotive LCD dot matrix graphic driver	Graphic Driver	0.5 to 6.5	4 to 16	120	I²C	-40 to +105	NAU000
PCA85132	LCD driver for low multiplex rates	Segment Driver	1.8 to 5.5	1.8 to 8	60 (max)	I²C	-40 to +95	UC
PCA85133	Automotive LCD driver for low multiplex rates		1.8 to 5.5	2.5 to 8	16	I²C	-40 to +95	UC
PCA85134	Automotive 60 x 4 LCD segment driver for multiplex rates up to 1:4		1.8 to 5.5	2.5 to 8	24	I²C	-40 to +95	LQFP80
PCA85162	32 x 4 automotive LCD driver for low multiplex rates		1.8 to 5.5	2.5 to 8	2.7	I²C	-40 to +95	TSSOP48
PCA85176	40 x 4 automotive LCD driver for low multiplex rates		1.8 to 5.5	2.5 to 8	3.5	I²C	-40 to +95	TQFP64, TSSOP56
PCA85232	LCD driver for low multiplex rates		1.8 to 5.5	1.8 to 8	80 (max)	I²C	-40 to +95	UC
PCA85233	Automotive 80 x 4 LCD driver for low multiplex rates		1.8 to 5.5	2.5 to 8	3	I²C	-40 to +105	UC
PCA85262	Automotive 32 x 4 LCD driver for low multiplex rates		1.8 to 5.5	2.5 to 8	6	I²C	-40 to +105	TSSOP48
PCA85276	Automotive 40 x 4 LCD driver		1.8 to 5.5	2.5 to 8	2.7	I²C	-40 to +105	TSSOP56
PCA8530	Automotive 102 x 4 Chip-On-Glass LCD segment driver		2.5 to 5.5	4 to 12	80	I²C	-40 to +105	NAU000
PCA8534	Automotive LCD driver for low multiplex rates		1.8 to 5.5	2.5 to 6.5	8	I²C	-40 to +85	LQFP80
PCA8536	Automotive LCD driver for low multiplex rates including a 6 channel PWM generator		1.8 to 5.5	2.5 to 9	30	I²C	-40 to +95	TSSOP56
PCA8537	Automotive LCD driver for multiplex rates up to 1:8		1.8 to 5.5	2.5 to 9	290	I²C/SPI	-40 to +95	TQFP64
PCA8538	Automotive 102 x 9 Chip-On-Glass LCD segment driver		2.5 to 5.5	4 to 12	160	I²C	-40 to +105	NAU000
PCA8543	4 x 60 automotive LCD segment driver with integrated charge pump		2.5 to 5.5	2.5 to 9	350	I²C	-40 to +105	LQFP80
PCA8546	4 x 44 automotive LCD driver		1.8 to 5.5	2.5 to 9	85	I²C	-40 to +95	TSSOP56
PCA8547	4 x 44 automotive LCD driver with integrated charge pump		1.8 to 5.5	2.5 to 9	290	I²C	-40 to +95	TQFP64
PCA8551	Automotive 36 × 4 LCD segment driver		1.8 to 5.5	1.8 to 5.5	0.6	I²C	-40 to +105	TSSOP48
PCA8553	Automotive 40 × 4 LCD segment driver		1.8 to 5.5	1.8 to 5.5	0.6	I²C	-40 to +105	TSSOP56
PCA8561	Automotive 18 x 4 LCD segment driver		1.8 to 5.5	1.8 to 5.5	0.6	I²C	-40 to +105	HVQFN32
PCA8576	Automotive LCD driver for low multiplex rates		2 to 6	2.5 to 6	120 (max)	I²C	-40 to +85	VSO56, UC, NAU000
PCA9620	60 x 8 LCD high-drive segment driver for automotive and industrial		2.5 to 5.5	2.5 to 9	100	I²C	-40 to +105	LQFP80, UC

REAL-TIME CLOCKS

Products	Description	VDD (interface)	VDD (clock)	IDD (nA) typical	Watchdog Timer	Programmable Alarm	Temperature Compensation	Interface	Temperature (Min - Max) (°C)	Package Version
PCA85063	Tiny Real-Time Clock/calendar with alarm function and I2C-bus	1.8 to 5.5	0.9 to 5.5	250	N	Y	N	I²C	-40 to +105	TSSOP8
PCA8565	High temperature Real-Time Clock/ calendar with I2C-bus	1.8 to 5.5	0.9 to 5.5	600	Y	Y	N	I²C	-40 to +125	TSSOP8
PCA2129	Accurate Real-Time Clock with integrated quartz crystal	1.8 to 4.2	1.8 to 4.2	470	Y	Y	Y	I²C/SPI	-40 to +85	SO16
PCA21125	SPI-bus Real-Time Clock and calendar	1.6 to 5.5	1.3 to 5.5	820	N	Y	N	SPI	-40 to +125	TSSOP14

LED CONTROLLERS

Products	Description	LED Supply Maximum Voltage	Maximum Current per LED Output	Operating Voltage (VDC)	No. of Addresses	Interface	Temperature (Min - Max) (°C)	Package Version
PCA9635	16-bit Fm+ I2C-bus LED driver	5V	25mA	2.3 to 5.5	126	I²C 1000kHz	40 to +85	TSSOP28
PCA9685	16-channel, 12-bit PWM Fm+ I2C-bus LED controller	5V	25mA	2.3 to 5.5	126	I²C 1000kHz	40 to +85	TSSOP28, HVQFN28
PCA9745B	16-channel SPI 20 V CS LED Controller	20V	57mA	3 to 5.5	n/a	4-wire SPI	-40 to +105	HTSSOP28
PCA9955B	16-channel SPI 20 V CS LED Controller	20V	57mA	3 to 5.5	125	I²C 1000kHz	-40 to +105	HTSSOP28
PCA9952	16-channel I2C Fm+ HV CS LED controller with OE	40V	57mA	3 to 5.5	125	I²C 1000kHz	-40 to +105	HTSSOP28

GPIO EXPANDERS

Products	Description	No. of Bits	VDD (Min - Max)	No. of Addresses	Output mode	Interface	Temperature (Min - Max) (°C)	Package Version
PCA9538	8-bit I2C-bus and SMBus low power I/O port with interrupt and reset	8	2.3 to 5.5	4	Totem pole	I²C 400 kHz	40 to +85	SO16, TSSOP16 and HVQFN16
PCA9704	8-bit, 18 V tolerant SPI GPI with maskable INT	8	4.5 to 5.5	n/a	Open Drain	SPI	40 to +125	TSSOP16
PCA9539	16-bit I2C-bus and SMBus low power I/O port with interrupt and reset	16	2.3 to 5.5	4	Totem pole	I²C 400 kHz	40 to +85	TSSOP24
PCA9539R	16-bit I2C-bus and SMBus low power I/O port with interrupt and reset	16	2.3 to 5.5	4	Totem pole	I²C 400 kHz	40 to +85	TSSOP24
PCA9703	16-bit, 18 V tolerant SPI GPI with maskable INT	16	4.5 to 5.5	n/a	Open Drain	SPI	40 to +125	TSSOP24

LEVEL TRANSLATORS

Products	Description	Number of bits	VCCA range	VCCB range	Data Rate (typ) Mb/s	One Shot	Buffer	Temperature (Min - Max) (°C)	Package Version
NTB0101	Dual supply translating transceiver; auto direction sensing; 3-state	1	1.2 to 3.6	1.65 to 5.5	100	No	Yes	-40 to +125	SC-88
NTB0102	Dual supply translating transceiver; auto direction sensing; 3-state	2	1.2 to 3.6	1.65 to 5.5	100	No	Yes	40 to +125	TSSOP8
NTB0104	Dual supply translating transceiver; auto direction sensing; 3-state	4	1.2 to 3.6	1.65 to 5.5	100	No	Yes	40 to +125	WLCSP12, DHVQFN14
NTS0102	Dual supply translating transceiver; open drain; rise time accelerator	2	1.65 to 3.3	2.3 to 5.5	50	Yes	No	40 to +125	TSSOP8, XSON8
NTS0104	Dual supply translating transceiver; open drain; rise time accelerator	4	1.65 to 3.3	2.3 to 5.5	50	Yes	No	40 to +125	DHVQFN14, TSSOP14

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Document Number: SIPAUTOSOLFS REV 0