

## Product Overview

## NCP6925: Power Management IC (PMIC), 7 Channels, with 2 DC-DC Converters and 5 LDOs

For complete documentation, see the data sheet.

The NCP6925 is part of the ON Semiconductor mini-power management IC family. It is optimized to supply battery powered portable application subsystems such as camera modules, microprocessors or any peripherals. This device integrates two high efficiency 1000 mA step-down DC to DC converter with DVS (Dynamic Voltage Scaling) and five low dropout (LDO) voltage regulators in WLCSP-36 2.36 x 2.36 mm package.

## Features

- 2.36 x 2.36 mm WLCSP 0.4 mm pitch
- Ultra low quiescent current (140  $\mu$ A typ)
- Id detection capability
- 2 general purpose I/O pins
- Two DC-DC converters, efficiency 95%, programmable output voltage from 0.6 V to 3.3 V by 12.5 mV steps, 1000 mA output current capability
- Four low noise, low dropout regulators, programmable output voltage from 0.8 V to 3.5 V by 25 mV steps, 300 mA output current capability, 50  $\mu$ Vrms typical low output noise
- Flexible power up and down sequences programmable by I<sup>2</sup>C
- Triple inputs 10 bits ADC
- 2 DC-DC converters, 95 % efficiency, 1 A output current capability, programmable output voltage from 0.6 V to 3.3 V by 12.5 mV steps
- 5 low dropout regulators, 300 mA output current capability, programmable output voltage from 0.8 V to 3.5 V by 25 mV steps, 50  $\mu$ Vrms typical low output noise

For more features, see the data sheet

## Applications

- Cellular Phones
- Battery powered applications power management
- Tablets
- Power supply for processor with low core voltage
- Digital Cameras

## Benefits

- Small Space Applications
- Save battery life
- Accessory detection
- Can control internal or external regulators, or can be used as internal sequences triggered inputs

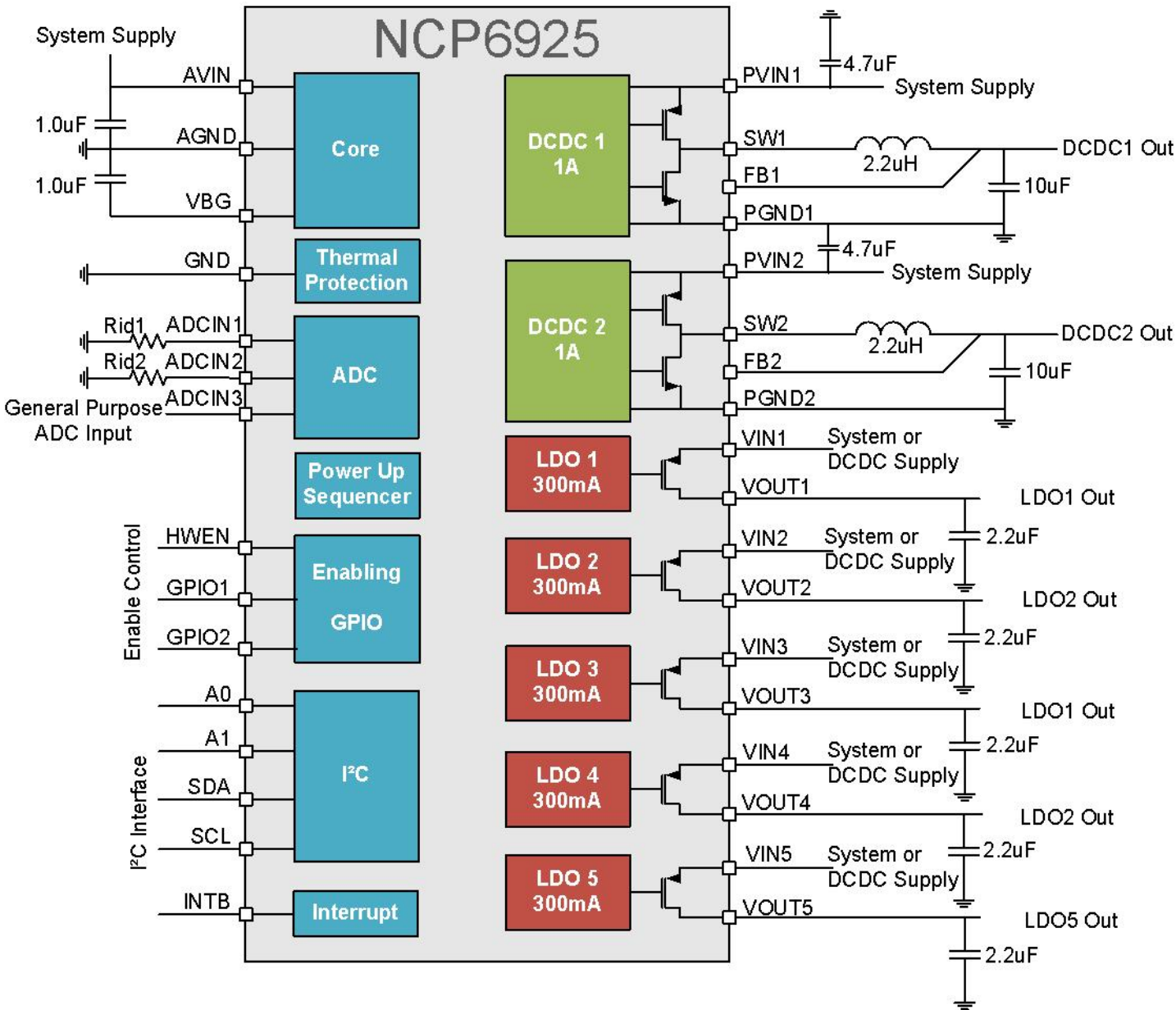
| Applications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | End Products                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <ul style="list-style-type: none"> <li>• <b>Construction:</b> Used in concrete, mortar, and grout.</li> <li>• <b>Automotive:</b> Used in engine components, exhaust systems, and brake pads.</li> <li>• <b>Marine:</b> Used in boat hulls, propellers, and outboard motors.</li> <li>• <b>Industrial:</b> Used in machinery, tools, and structural components.</li> <li>• <b>Medical:</b> Used in prosthetics, implants, and medical devices.</li> <li>• <b>Aerospace:</b> Used in aircraft engines, fuselages, and landing gear.</li> <li>• <b>Defense:</b> Used in armor, weapons, and military vehicles.</li> <li>• <b>Marine:</b> Used in boat hulls, propellers, and outboard motors.</li> <li>• <b>Industrial:</b> Used in machinery, tools, and structural components.</li> <li>• <b>Medical:</b> Used in prosthetics, implants, and medical devices.</li> <li>• <b>Aerospace:</b> Used in aircraft engines, fuselages, and landing gear.</li> <li>• <b>Defense:</b> Used in armor, weapons, and military vehicles.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Concrete:</b> Used in foundations, walls, and floors.</li> <li>• <b>Mortar:</b> Used in bricklaying and masonry.</li> <li>• <b>Grout:</b> Used in tile and stone installations.</li> <li>• <b>Engine Components:</b> Used in pistons, valves, and connecting rods.</li> <li>• <b>Exhaust Systems:</b> Used in mufflers and catalytic converters.</li> <li>• <b>Brake Pads:</b> Used in disc brakes.</li> <li>• <b>Boat Hulls:</b> Used in the construction of boat bodies.</li> <li>• <b>Propellers:</b> Used in outboard motors.</li> <li>• <b>Outboard Motors:</b> Used in boat propulsion.</li> <li>• <b>Machinery:</b> Used in various industrial machines.</li> <li>• <b>Tools:</b> Used in construction and industrial applications.</li> <li>• <b>Structural Components:</b> Used in bridges, buildings, and infrastructure.</li> <li>• <b>Prosthetics:</b> Used in artificial limbs and joints.</li> <li>• <b>Implants:</b> Used in medical devices like pacemakers and hip replacements.</li> <li>• <b>Aircraft Engines:</b> Used in jet and propeller engines.</li> <li>• <b>Fuselages:</b> Used in the construction of aircraft bodies.</li> <li>• <b>Landing Gear:</b> Used in aircraft wheels and landing systems.</li> <li>• <b>Armor:</b> Used in military vehicles and personnel protection.</li> <li>• <b>Weapons:</b> Used in various types of firearms and explosives.</li> <li>• <b>Military Vehicles:</b> Used in tanks, armored cars, and other combat vehicles.</li> </ul> |

- Smartphones
- Tablets
- Wearable devices
- MP3 players

## Part Electrical Specifications

| Product        | Compliance  | Status | Topology  | Control Mode | V <sub>CC</sub> Min (V) | V <sub>CC</sub> Max (V) | V <sub>O</sub> Typ (V) | I <sub>O</sub> Typ (A) | Efficiency (%) | f <sub>sw</sub> Typ (kHz) | Package Type |
|----------------|-------------|--------|-----------|--------------|-------------------------|-------------------------|------------------------|------------------------|----------------|---------------------------|--------------|
| NCP6925BFCCT2G | Pb-free     | Active | Step-Down | Voltage Mode | 2.5                     | 5.5                     | 1.2                    | 1                      | 95             | 3000                      | WLCSP-36     |
|                | Halide free |        |           |              |                         |                         |                        |                        |                |                           |              |

Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

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