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ON Semiconductor®

Selection. Service. Support.
Power Solutions from ON Semiconductor

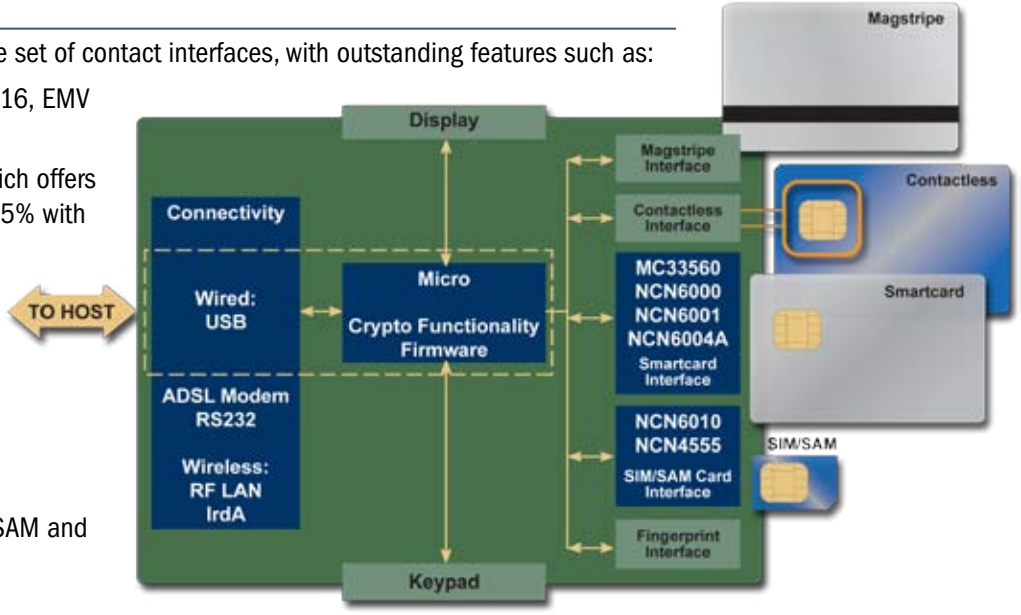
Smartcard Interface IC Solutions

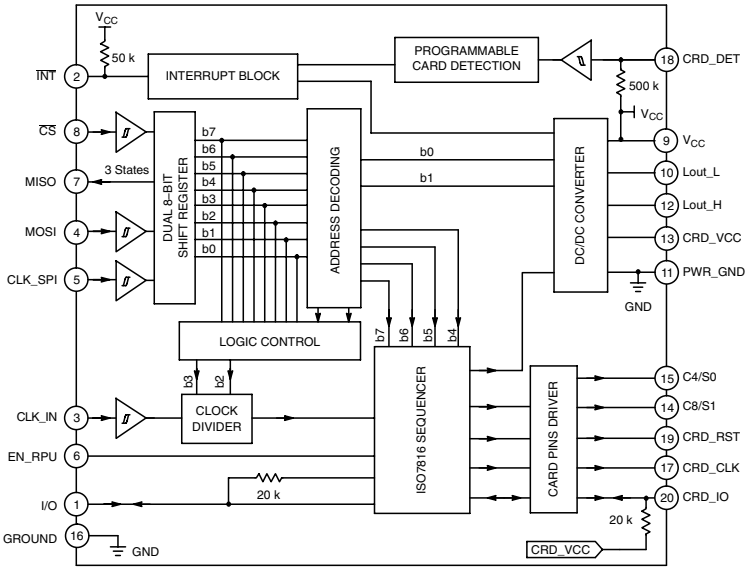
Covering POS terminals, healthcare, transportation, access control, identity verification, wireless, pay television and more from ON Semiconductor.

Complete Solutions

ON Semiconductor provides a complete set of contact interfaces, with outstanding features such as:

- Compatibility with the latest ISO7816, EMV 4.1, and wireless standards
- Full bridge DC-DC power supply which offers conversion efficiency in excess of 75% with great noise and ripple reject
- Parallel or serial control port
- Programmable clock division ratio
- Large output current
- Card detect
- Chip select
- Ability to read Type C (1.8 V) SIM/SAM and Smartcards





Smartcard Interface ICs

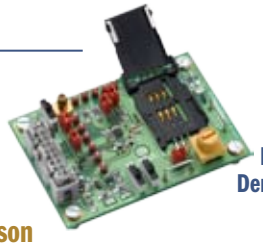
NCN6001

- Single SAM Interface (Security Access Module) & Smart Card Interface
- 2.7V-5.5V Input Voltage
- Fully compatible with ISO7816-3, EMV4.1 (May 2004), and GSM11.11
- Supports 1.8V/3V/5V Cards
- Full-bridge Buck-Boost DC-DC converter; eliminates the need for multiple power supplies
- High Efficiency DC-DC Converter
- Programmable Card Voltage, Supply Card Detection, and Clock Interface
- Three I/O Lines (I/O,C4 and C8) for Synchronous and Asynchronous Cards
- Supports 20 MHz Card Clock Frequency
- Chip Select Logic
- 8KV HBM ESD Protection on card pins
- TSSOP20 Package

SIM/SAM Card Interface ICs

NCN4555/7

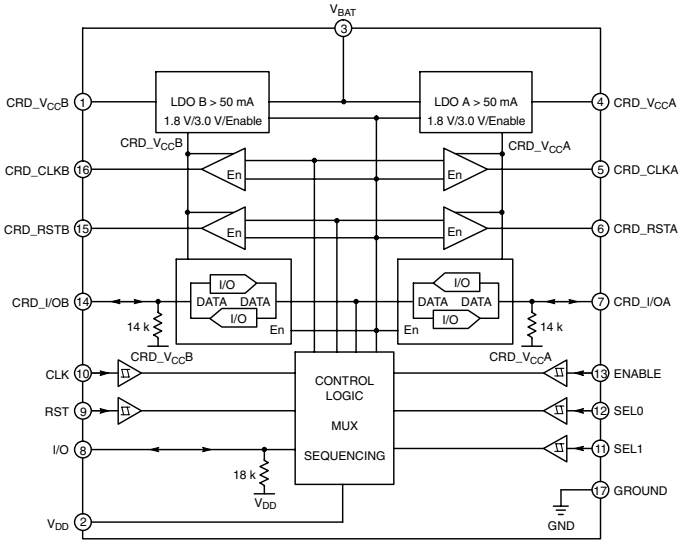
- Single & Dual SIM interface (Subscriber Identity Module)
- Sequencer on NCN4557
- 1.8 V - 5.5 V Digital Input Voltage
- Fully compatible with ISO7816-3, GSM11.11/11.12/11.18, IMT-2000 / 3G TS 31.101
- Supports 1.8 V / 3 V Cards
- Linear DC-DC Converter (LDO) able to supply current in excess of 50 mA at 1.8 V & 3 V (Vbat ranging from 2.7 V to 5.5 V)
- Very low stand-by and operating power consumption
- >5 MHz clock frequency
- >7 kV HBM ESD protection on SIM pins
- Low profile 3 mm x 3 mm QFN-16 package



NCN4555 Demo Board

SIM Interface Device Comparison

Product Features	NCN4555	NCN4557
Analog Interfaces	1 card	2 cards
Card Types (V)	1.8/3	1.8/3
Max Clock Frequency (MHz)	>5	>5
Power Supply (Type)	Built-In LDO-Type DC-DC	Built-In LDO-Type DC-DC
Power Supply (V)	2.7 - 5.5	2.7 - 5.5
Activation/Deactivation	No	Yes
Packaging	Low Profile QFN-16	Low Profile QFN-16
Tempetarure Range (°C)	-25 to +85	-25 to +85
Wireless Protocol	GSM 11.1x/3G TS 31.101	GSM 11.1x/3G TS 31.101
ESD Protection (kV)	8	8

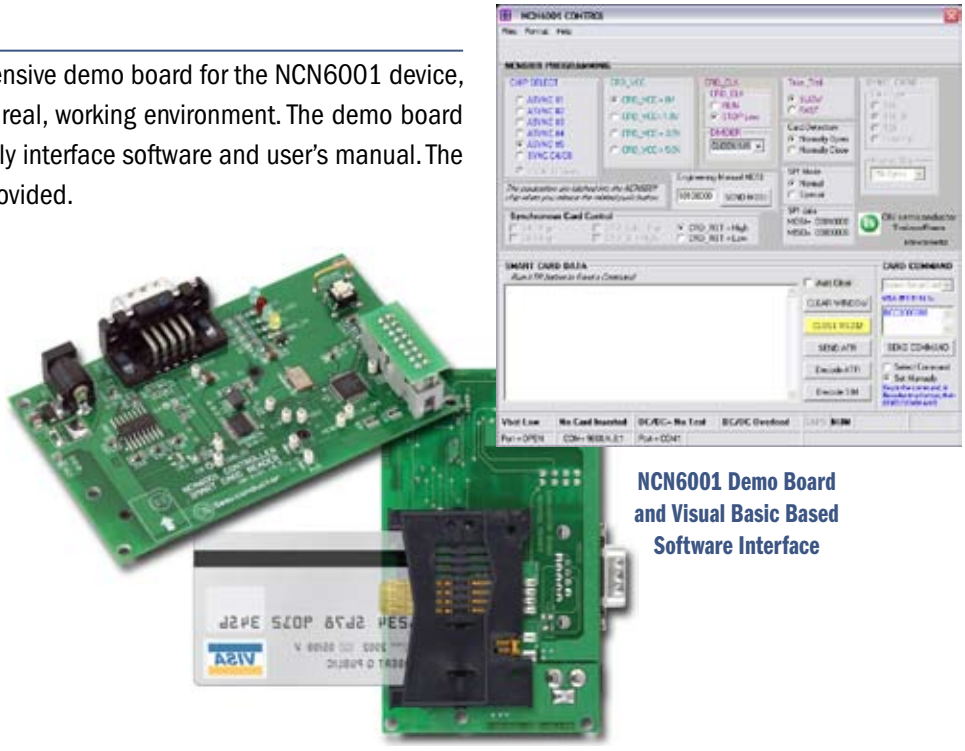


Smartcard Interface ICs from ON Semiconductor

Features	NCN6000	NCN6001	NCN6004A
Analog Interfaces	1 Card	1 Card	2 Cards
Card Types (V)	3/5	1.8/3/5	1.8/3/5
Protocol	Asynchronous	Asynchronous/Synchronous	Asynchronous/Synchronous
Max Clock Frequency (MHz)	20	20	20
Power Supply (Type)	Built-In DC-DC Converter	High Efficiency DC-DC Converter	High Efficiency DC-DC Converter
Power Supply (V)	2.7 - 6	2.7 - 5.5	2.7 - 5.5
Host Interface	Parallel	Serial (SPI)	Parallel
Packaging	TSSOP-20	TSSOP-20	TQFP-48
Temperature Range (°C)	-25 to +85	-25 to +85	-25 to +85
EMV Compliance	4.1	4.1	4.1
ESD Protection (kV)	8	8	8

Customer Support

ON Semiconductor provides a very comprehensive demo board for the NCN6001 device, allowing customers to evaluate the part in a real, working environment. The demo board is part of a package that includes user-friendly interface software and user's manual. The MPU code used in this application is also provided.



NCN6001 Demo Board and Visual Basic Based Software Interface

NCN4557 Demo Board

ON Semiconductor also offers demo boards for the SIM interfaces. They allow customers to fully evaluate the NCN6010, NCN4555 and NCN4557. These evaluation boards have been designed to easily interface with the customers' systems.

For additional information and pricing, or to order demo boards or sample devices, please visit our website at ***www.onsemi.com****.*

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:
Literature Distribution Center for ON Semiconductor
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