PT501
Universal card emulation and NFC peer-to-peer solution

The easiest way to communicate with an NFC phone

NXP's PT501 offers a cost-optimized and universal solution for interacting with NFC-enabled phones in applications such as maintenance, medical and machine-to-machine (M2M) communication. Depending on the data size and transfer rate needed, it can be configured to meet any card emulation requirements such as NFC forum tag types 2, 3 and 4. The PT501 is also the perfect complement to NXP's CLRC663 NFC reader IC, enabling robust communication in passive peer-to-peer systems for data transfer above 8 KB.

KEY FEATURES

- 13.56 MHz communication
- Emulates NFC forum tag types 2, 3 and 4
- NFC-IP1 peer-to-peer support (passive target)
- Interfaces: I^2C, SPI and serial UART

KEY BENEFITS

- NFC forum compliant for medical devices
- Can be configured to meet any card emulation requirements
- Enables robust communication (error handling)
- Ideal partner for the CLRC663 (e.g. for machine-to-machine communication)
- Exhaustive product support package

KEY APPLICATIONS

- Maintenance (e.g. metering and home appliances)
- M2M communication (e.g. industrial)
- Medical devices

Key technical data

Product features	
FIFO depth [byte]	64
Host interface	SPI, I²C, serial UART
RF interface	
Analog interface	Fully integrated
Carrier frequency [MHz]	13.56
Baud rate [kbit/s]	Up to 424
Standards and protocols	
NFC Forum tag	Type 2, 3 and 4
ISO 14443 A	Yes
FeliCa	Yes
ISO 18092 (NFC)	Passive target
Additional product information	
Supply voltage [V]	2.5 … 3.6
Temperature range [°C]	-30 / +85
Package	HVQFN32
Software support	Card emulation software
	P2P library

Ordering information			
Type number	**Delivery**	**Orderable part number**	**MOQ**
PT5010A0HN/C1	Reel	9352 988 13118	6.000
PT5010A0HN/C1	Multi-tray	9352 988 13157	2.450
PT5010A0HN/C1	Single-tray	9352 988 13151	490

SUPPORT AND DESIGN-IN MATERIAL

To support product development and enable easy access to NFC technology, NXP provides a design-in kit equipped with all the necessary hardware, software sources and documentation.

To order samples or design kits, please contact a local NXP distributor (www.nxp.com) or access the NXP distributor portal (https://extranet.nxp.com).

www.nxp.com

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