

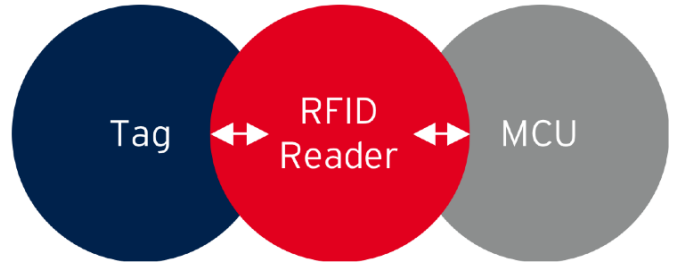
R13MP Reads and Writes Multiple Protocols

The R13MP is a multi-protocol RFID reader chip covering a wide range of applications including complete RFID sensor data logging systems complementing SL13A-based smart data loggers.

The R13MP supports all commonly used standards such as ISO 14443A/B, ISO 15693, FeliCa, Tag-it™ and cool-Log™. Proprietary protocols are supported through the direct mode.

The fully integrated supply regulators assure high PSRR, prevent interference and contribute to further reduction of BOM.

Adding a simple low-cost 8-bit microcontroller completes a universal reader system suitable for numerous applications, both in proximity and vicinity RFID systems, and approved in more than 70 countries worldwide.

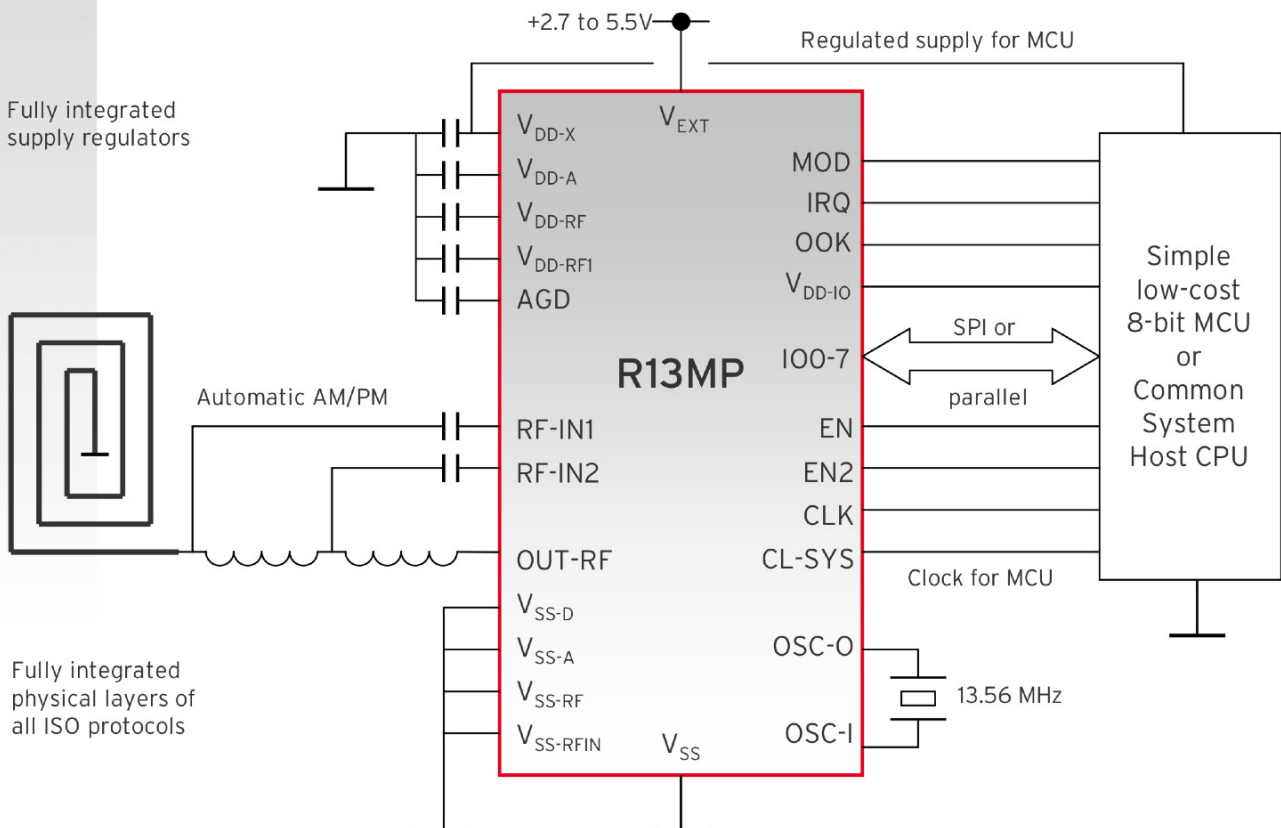


- Reads/writes all commonly used standards
- Supports proprietary protocols in direct mode
- Approved in more than 70 countries
- Complements SL13A smart data logger systems

Development Kit

A complete development kit including an R13MP reader board and a SL13A smart data logger board is available. The kit comes with demo application and GUI software with source codes.

Typical Application - Multi-Protocol HF RFID Reader System



Quick Reference Data

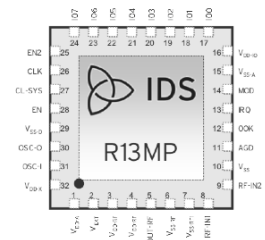
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V_{EXT}	Input supply voltage range		2.7	5.0	5.5	V
I_{PD}	Supply current in power-down mode	All functions disabled		1	10	μ A
I_{PD2}	Supply current in power-down mode 2	Ref. voltage and V_{DD-X} remain active to support external circuitry		120	200	μ A
I_{STBY}	Supply current in standby mode	Oscillator running; voltage regulators in low consumption		1.5	2	mA
I_{ON}	Supply current	Without antenna driver current		10	16	mA
V_{DD-X}	Regulated supply for external circuitry		3.1	3.3	3.5	V
T_A	Operating Ambient Temperature		-40		110	$^{\circ}$ C
	Protocols and Data Rates	ISO/IEC 15693 ISO/IEC 14443A/B FeliCa Proprietary		1.66 / 26.5 106 / 212 / 424 / 848 212 Via direct mode		kbps

Delivery Form

The R13MP is available in a 32-LD QFN (5x5 mm; RoHS).

Complementary Products

The ISO 15693 smart label chip with sensor, SL13A complements the R13MP in building complete RFID monitoring, tracking and data logging systems.



Similar Products

The R14AB is an ISO 14443 reader chip optimized for battery-powered readers especially in access control applications.

About IDS Microchip AG

IDS Microchip AG is an RFID semiconductor company specialized in integrated circuits for RFID system solutions including readers, enhanced tags and labels with sensors for both HF and UHF systems. With its long history in RFID development, IDS offers one of the most complete semiconductor portfolios comprising both passive, semi-passive as well as active RFID systems.

Focusing on all silicon aspects of radio frequency identification (RFID) technology, IDS Microchip helps customers achieving cost-effective solutions. Its comprehensive portfolio comprises RFID and sensor-enabled integrated circuits and IP for highly integrated low-power RFID system. Founded in 1996 and privately funded, IDS Microchip is headquartered in Wollerau, Switzerland; with a design centre in Ljubljana, Slovenia, an office in Toronto and distributors throughout the world.

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