ISO 14443 ISO 15693

NXP Contactless Reader Systems

	Reader ICs							Evaluation Systems			
Product Features	**MF RC500**	**MF RC530**	**MF RC531**	**SL RC400**	**CL RC632**	**MF RC522**	**MF RC 523**	**MF EV700**	**MF EV800**	**SL EV400**	**CL RD 701**
Operating distance typ. [mm]	100	100	100	100	100	80	80	75	75	75	75
Antenna	-	-	-	-	-	-	-	yes	yes	yes	yes
FIFO depth [byte]	64	64	64	64	64	64	64	n.a.	n.a.	n.a.	n.a.
Host interface	8-bit parallel	8-bit parallel, SPI	8-bit parallel, SPI	8-bit parallel	8-bit parallel, SPI	SPI, I²C, RS232	SPI, I²C, RS232	USB	USB/R232	USB	USB
RF Interface											
Analog interface	fully integrated	fully integrated	fully integrated	fully integrated	fully integrated	fully integrated	fully integrated	MF RC500	MF RC500	SL RC400	CL RC 632
Carrier frequency [MHz]	13.56	13.56	13.56	13.56	13.56	13.56	13.56	13.56	13.56	13.56	13.56
Modulation	100% ASK	100% ASK	10% & 100% ASK	10% & 100% ASK	10% & 100% ASK	100% ASK	10% & 100% ASK	100% ASK	100% ASK	10% & 100% ASK	10% & 100% ASK
Baudrate ISO 14443 [kbit/s]	106	106/212/424/848	106/212/424/848	-	106/212/424/848	106/212/424/848	106/212/424/848	106	106	-	106/212/424/848
Baudrate ISO 15693 [kbit/s]	-	-	-	1.66 / 26.5	1.66 / 26.5	-	-	-	-	1.66 / 26.5	1.66 / 26.5
Standards & Protocols											
ISO 14443 A	yes	yes	yes	-	yes	yes	yes	yes	yes	-	yes
ISO 14443 B	-	-	yes	-	yes	-	yes	-	-	-	yes
ISO 15693	-	-	-	yes	yes	-	-	-	-	yes	yes
Mifare® Classic protocol	yes	yes	yes	-	yes	Yes	yes	yes	yes	-	yes
ICODE 1 protocol	-	-	-	yes	yes	-	-	-	-	yes	yes
EPC protocol	-	-	-	yes	yes	-	-	-	-	yes	yes
Security Features											
Mifare® Classic	yes	yes	yes	-	yes	yes	yes	yes	yes	-	yes
Exception Sensors	V, f	V, f	V, f	V, f	V, f	V, f	V, f	-	-	-	-
Additional Product Information											
Supply voltage digital [V]	5	3.3 or 5	3.3 or 5	5	3.3 or 5	2.5 … 3.6	2.5 … 3.6	5	5	5	5
Supply voltage analog [V]	5	5	5	5	5	2.5 … 3.6	2.5 … 3.6	-	-	-	-
Power down mode current, typ. [µA]	2	2	2	2	2	1	1	n.a.	n.a.	n.a.	n.a.
Wake up time [µs]	1000	1000	1000	1000	1000	1000	1000	n.a.	n.a.	n.a.	n.a.
Temperature range [°C]	-25 … +85	-25 … +85	-25 … +85	-25 … +85	-25 … +85	-25 … +85	-25 … +85	0 … +70	0 … +70	0 … +70	0 … +70
Package	SO32	SO32	SO32	SO32	SO32	HVQFN32	HVQFN32	-	-	-	-
Approvals											
EMC	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	CE, FCC	CE, FCC	CE, FCC	CE, FCC
Software Support	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes