IDS
The RFID Semiconductor Company

CL100 Series
Proximity High-Speed Data Link IC
Product Flyer

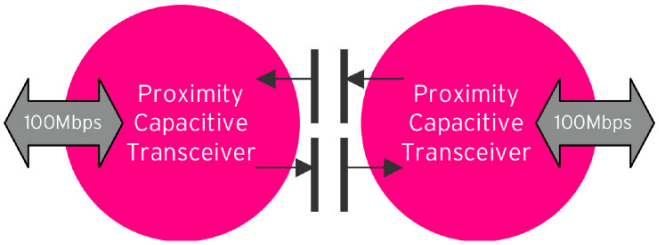
Simply pure peer-to-peer with >100 Mbps

- No RF
- No physical contact
- Practically zero electromagnetic emission

The CL100 series is intended for proximity high-speed data link applications in which speed, simplicity and low power at low cost are required.

The devices are optimized for pure peer-to-peer ad hoc communication providing full utilization of bandwidth as no protocol or other overhead is required. Yet, the data transfer is 100% secure due to "zero emission".

Since the communication is based on capacitive coupling, no magnetic signals are emitted and hence a much better security is provided compared to RFID or NFC systems. Furthermore, the communication electrodes are small, placed close together and supplied by differential signals, which prevents eavesdropping of the communication from a distance.

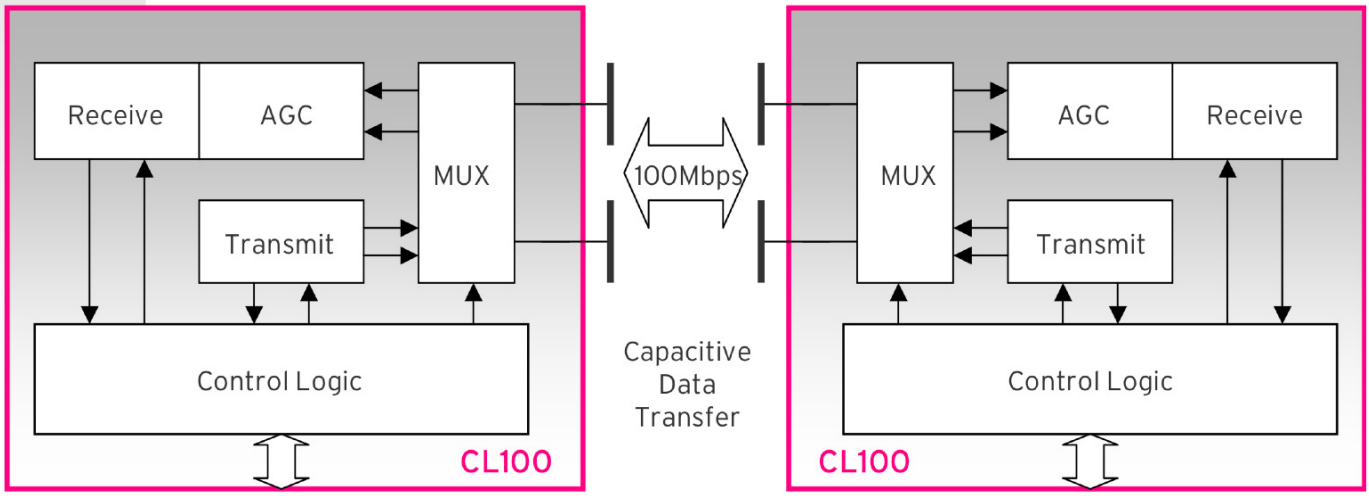


- Pure and safe peer-to-peer communication
- Enables data rates from a few kbps up to more than 100 Mbps
- Ad hoc connection
- Completely safe against power and EM attacks
- Communication range typically equals diameter of electrode patch, typically ~ 10 mm

Typical Applications

- Proximity high-speed data exchange
- Shielded contact-less proximity communication
- Video and music downloads between MP3 player and other entertainment equipment
- Contact-less connectors

Typical Application – Proximity Data Link



Quick Reference Data

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{SUP}	Operating Supply Voltage	T_A = 25°C	2.4	3.0	3.6	V
I_{RM}	Ready-Mode Current Consumption	Transmit Receive		0.5 3		mA mA
I_{O-TX}	TX Operating Current Consumption	Transmit @ 10Mbps Transmit @ 100Mbps		1.5 6		mA mA
I_{O-RX}	RX Operating Current Consumption	Receive @ 10Mbps; C_L = 5pF Receive @ 100Mbps; C_L = 5pF		4 8		mA mA
T_{AMB}	Operating Temperature Range		-40		110	°C
$C_{OUT-MIN}$	Minimum Capacitance	Coupling Capacitance	0.1			pF
DR_{MAX}	Maximum Data Rate				100	Mbps

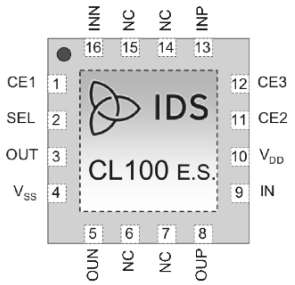
Delivery Form

CL100 samples are available in a 16-LD QFN (4x4 mm; RoHS).

Other delivery forms are available on request.

Availability

Preliminary samples are available on request.



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 solutions. 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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