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CAN to UART Converter

(SWI-CAN-2211)



Features



- ✓ Supports both CAN 2.0A and CAN 2.0B protocols
- ✓ Bridges CAN Bus and UART
- ✓ Embedded with high performance CAN transceiver
- ✓ Adjustable CAN Bit rates: 100 kbps to 1 Mbps
- ✓ Can Provide command sets
 - Proprietary: for basic efficient data processing
 - Customized: for customer system Integration
- ✓ Housing: (Optional)
- ✓ Dimension: 33.0 x 17.8 x 2.7 (mm)
- ✓ Compliance with the automotive EMS test level: BCI (ISO 11452-4), EFT (IEC 61000-4-4), ESD (IEC 61000-4-2)
- ✓ Technical support for your further applications:
 - Data Log
 - OBDII (Light Duty) decoder
 - J1939 (Heavy Duty) decoder
- ✓ Easy to integrate with IOT devices: BT, USB, 3G/4G, LoRa, NBloT...
- ✓ CAN be integrated with our Contactless CAN Probe (CCP)

Specification & Applications



Power supply	DC 7V ~ 35V
Working Current	< 12mA (1mA @Sleep mode)
Bit Rate (CAN)	125K, 250K, 500K, 1Mbps
Baud Rate (UART)	38400, 57600, 115200, 230400, 460800, 921600, 1382400 bps...
Support Protocol	CAN 2.0A / CAN 2.0B
Dimensions	33.0 x 17.8 x 2.7 (mm)
Weight	8g
Operation Temperature	-25 ~ +75°C

- LD/HD Vehicle data access/log (OBDII/ J1939/ UDS) for ADAS devices
- Industrial Automation (CANopen)
- Farming Machine (ISO Bus)
- Marine Electronics (NMEA2000)
- Fleet Management System (FMS)

Frame Format - UART to CAN



	Start	AB	DLC	ID	CAN_Data	EOF
(29 Bytes/ASCII)	1	1	1	3/8	0~16	2
CAN 2.0A	@	A	8	7FF	1122334455667788	\r\n
CAN 2.0B	@	B	8	1FFFFFFF	1122334455667788	\r\n

- Start: 1 byte
- AB (i.e., CAN 2.0A or CAN2.0B): 1 byte
- DLC (Data Length Code): 1 byte
- ID: 3 Bytes or 8 bytes
- CAN_Data: 16 bytes
- End of Field (EOF): 2 bytes

Example

@A87FF1122334455667788\r\n

@A81FFFFFFF1122334455667788\r\n

Frame Format - CAN to UART



	Start	FT	(space)	DLC	(space)	ID	(space)	CAN_Data	EOF
(32 Bytes/ASCII)	1	1	1	1	1	8	1	16	2
CAN 2.0A	#	D	_	8	_	7FF	_	1122334455667788	\r\n
CAN 2.0B	#	D	_	8	_	1FFFFFFF	_	1122334455667788	\r\n

- **Start:** 1 byte
- **FT** (i.e., Data frame or RTR frame type): 1 bytes
 - “D” for data frame, “R” for remote transmission frame
- **DLC (Data Length Code):** 1 byte
- **ID:** 8 bytes
- **CAN_Data:** 16 bytes
- **End of Field (EOF):** 2 bytes

Example

#D 8 7FF 1122334455667788\r\n

#D 8 1FFFFFFF 1122334455667788\r\n