


## LIN Transceiver with Integrated Vreg 3.3V Automotive 8-Pin VDFN EP T/R



Images are for reference only

<b>Manufacturer:</b>	<a href="#">Microchip Technology, Inc</a>
<b>Package/Case:</b>	DFN8
<b>Product Type:</b>	Discrete Semiconductor Modules
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active

[Inquiry](#)

### General Description

The Microchip ATA663231 system basis chip is a fully integrated LIN transceiver, designed according to the LIN specification 2.0, 2.1, 2.2, 2.2A and SAEJ2602-2, with a low-drop voltage regulator with 3.3V/85mA. The combination of voltage regulator and bus transceiver makes it possible to develop simple but powerful slave nodes in LIN bus systems. Microchip ATA663231 is designed to handle the low-speed data communication in vehicles (for example, in convenience electronics). Improved slope control at the LIN driver ensures secure data communication up to 20Kbaud. The bus output is designed to withstand high voltage. Sleep mode and silent mode guarantee minimized current consumption even in the case of a floating or a shorted LIN bus. The voltage regulator is a fully integrated low-drop regulator working down to a supply voltage of 2.3V with best-in-class current consumption in linear mode ( $2V < V_{VS} < 5V$ ) with less than 170 $\mu$ A. This enables storing data within the MCU during system shutdown even in case of an unexpected power supply interruption. The device is available in DFN8 package with wettable flanks and pin assignment according to OEM hardware requirements for LIN-, CAN-, and Flexray- interfaces, rev. 1.3.

## Key Features

Supply voltage up to 40V

Operating voltage  $V_S = 5V$  to 28V

Sleep mode: typically 9 $\mu$ A

Silent mode: typically 47 $\mu$ A

Very low current consumption at low supply voltages ( $2V < V_S < 5.5V$ ): typically 130 $\mu$ A

MLC (multi-layer ceramic) capacitor with 00 $\Omega$  ESR

Normal, fail-safe, and silent mode:  $V_{CC} = 3.3V \pm 2\%$

Sleep mode: VCC is switched off

VCC undervoltage detection with open drain reset output (NRES, 4ms reset time)

Voltage regulator is short-circuit and over-temperature protected

LIN physical layer according to LIN 2.0, 2.1, 2.2, 2.2A and SAEJ2602-2

Wake-up capability via LIN bus (100 $\mu$ s dominant)

Wake-up source recognition

TXD time-out timer

Bus pin is over-temperature and short-circuit protected versus GND and battery

Advanced EMC and ESD performance

Fulfills the OEM "Hardware Requirements for LIN in Automotive Applications Rev.1.3"

Interference and damage protection according to ISO7637

Qualified according to AEC-Q100

Package: DFN8 with wettable flanks (Moisture Sensitivity Level 1)

Built-in Safety Features

Power-on Reset

Voltage Monitoring (VS, VCC)

TXD Dominant Timeout

Overtemperature Detection

## Recommended For You

---

### ATA6626C-PGQW

Microchip Technology, Inc

QFN

### ATA6662C-TAQY

Microchip Technology, Inc

SOP8

### ATA6662C-GAQW

Microchip Technology, Inc

SOP8

**ATA663454-GDQW**

Microchip Technology, Inc  
DFN16

**ATA6664-GAQW**

Microchip Technology, Inc  
SOP8

**ATA6662-TAQY**

Microchip Technology, Inc  
SOP-8

**ATA663254-GAQW**

Microchip Technology, Inc  
SOIC-8

**ATA663254-GBQW**

Microchip Technology, Inc  
VDFN-8

**ATA663211-GBQW**

Microchip Technology, Inc  
VDFN-8

**ATA663211-GAQW**

Microchip Technology, Inc  
SOP8

**ATA6624C-PGQW-1**

Microchip Technology, Inc  
VQFN20

**ATA6570-GNQW1**

Microchip Technology, Inc  
SOP14

**ATA6630-GLQW**

Microchip Technology, Inc  
QFN

**ATA6625C-GAQW**

Microchip Technology, Inc  
SOP8

**ATA6626-PGQW**

Microchip Technology, Inc  
QFN