


LIN Transceiver with Integrated Vreg 5V Automotive 8-Pin SO T/R



Images are for reference only

Manufacturer:	Microchip Technology, Inc
Package/Case:	SOIC-8
Product Type:	Discrete Semiconductor Modules
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active

[Inquiry](#)

General Description

The Microchip ATA663254 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 5V/85mA. The combination of voltage regulator and bus transceiver makes it possible to develop simple but powerful slave nodes in LIN bus systems. Microchip ATA663254 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 μ 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 SO8 and DFN8 package with wettable flanks and pin assignment according to OEM hardware requirements for LIN-, CAN-, and Flexray- interfaces, rev. 1.3.

Please see our MikroElektronika click Board! <https://www.mikroe.com/ata663254-click>

Key Features

ISO 26262 FuSa Ready

Supply voltage up to 40V

Operating voltage $V_S = 5V$ to 28V

Sleep mode: typically 9 μ A

Silent mode: typically 47 μ A

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

MLC (multi-layer ceramic) capacitor with 0Ohm ESR

Normal, fail-safe, and silent mode: $V_{CC} = 5.0V \pm 2\%$

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 μ 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

AEC-Q100 and AEC-Q006

Package: VDFN8 with wettable flanks (Moisture Sensitivity Level 1)

SOIC 8 and DFN8 package with wettable flanks

Built-in Safety Features

Power-on Reset

Voltage Monitoring (V_S , 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

ATA663231-GBQY

Microchip Technology, Inc
DFN8

ATA6664-GAQW

Microchip Technology, Inc
SOP8

ATA6662-TAQY

Microchip Technology, Inc
SOP-8

ATA663254-GBQY

Microchip Technology, Inc
VDFN-8

ATA663211-GBQY

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