


Audio Attenuator 8-Pin SOIC T/R

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



Images are for reference only

[Inquiry](#)

General Description

The TLIN2021A-Q1 is a local interconnect network (LIN) physical layer transceiver. LIN is a low-speed universal asynchronous receiver transmitter (UART) communication protocol that supports automotive in-vehicle networking.

The TLIN2021A-Q1 transmitter supports data rates up to 20 kbps. The transceiver controls the state of the LIN bus via the TXD pin and reports the state of the bus on its open-drain RXD output pin. The device has a current-limited wave-shaping driver to reduce electromagnetic emissions (EME).

The TLIN2021A-Q1 is designed to support 12-V and 24-V applications with a wide input voltage operating range. The device supports low-power sleep mode, as well as wake-up from low-power mode through wake over LIN, the WAKE pin, or the EN pin. The device allows for system-level reductions in battery current consumption by selectively enabling the various power supplies that can be present on a node through the device INH output pin.

Key Features

AEC-Q100 (Grade 1) Qualified for automotive applications

Compliant to LIN 2.0, LIN 2.1, LIN 2.2, LIN 2.2A and ISO 17987-4 electrical physical layer (EPL) specification

Compliant to SAE J2602-1 LIN Network for Vehicle Applications

Functional Safety-Capable

Documentation available to aid in functional safety system design

Support for 12-V and 24-V applications

Wide input operational voltage range:

V_{SUP} range from 4.5 V to 45 V

LIN transmit data rate up to 20 kbps

LIN receive data rate up to 100 kbps

Operating modes: Normal, Standby and Sleep

Low-power mode wake-up support with source recognition:

Remote wake-up over the LIN bus

Local wake-up via the WAKE pin

Local wake-up via EN

Integrated 45-k Ω LIN pull-up resistor

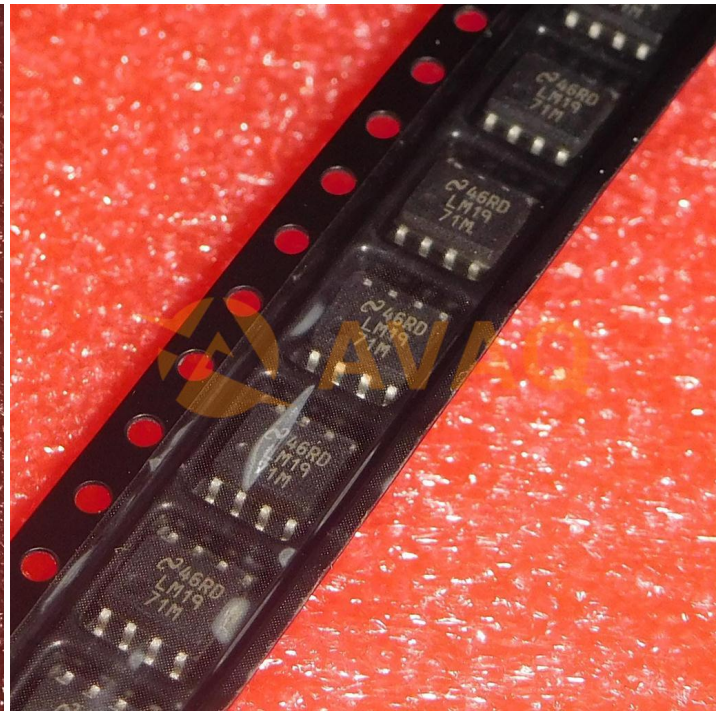
Control of system-level power using the INH pin

Power-up/down glitch-free operation on LIN bus and RXD output

Protection features: ± 60 V LIN bus fault tolerant, 58 V load dump support, undervoltage protection on V_{SUP} , TXD dominant state time-out, thermal shutdown, unpowered node or ground disconnection fail-safe at system level

Junction temperature from -40°C to 150°C

Available in 8-pin SOIC, VSON with wettable flanks, and SOT23 packages



Recommended For You

LMI972M

Texas Instruments, Inc
SOP20

LM1496N

Texas Instruments, Inc
DIP14

LMI971M

Texas Instruments, Inc
SOP-8

LM1871N

Texas Instruments, Inc
DIP18

LMH2120UM/NOPB

Texas Instruments, Inc
DSBGA-6

LMX2541SQE2060E/NOPB

Texas Instruments, Inc
WQFN-36

LMP91051MI/NOPB

Texas Instruments, Inc
14-TSSOP

LMX2470SLEX/NOPB

Texas Instruments, Inc
QFN

LMH2110TMX/NOPB

Texas Instruments, Inc
DSBGA-6

LMH2110TM/NOPB

Texas Instruments, Inc
DSBGA6

LMV221SD

Texas Instruments, Inc
QFN

LM1496M

Texas Instruments, Inc
SOP14

LMV225SD

Texas Instruments, Inc
WSO6

LMH2110TM

Texas Instruments, Inc
SMD-6

LMI972M/NOPB

Texas Instruments, Inc
SOP20