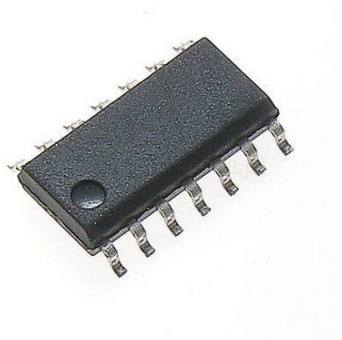
ATA6570-GNQW1

CAN Transceiver with Partial Networking and Watchdog, CAN FD Capable

Manufacturer:	Microchip Technology, Inc
Package/Case:	SOP14
Product Type:	Communication & Networking ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The ATA6570 is a CAN Partial Networking (PN)transceiver that interfaces a Controller Area Network (CAN) protocol controller and the physical two wire CAN bus designed for high speed CAN applications in the automotive environment. It provides local and enhanced remote wake-up capabilities.The Microchip ATA6570 has a very low power consumption in Standby and Sleep Mode. Beside local wake-up via WAKE and remote wake-up pattern according to ISO 11898-2: 2016 and also additionally supports ISO11898-2: 2016 compliant CAN partial networking. A CAN frame decoder evaluates the bus traffic and checks for a matching frame, that has being configured into registers via the SPI. The device is able to keep the complete ECU in a low power mode even when bus traffic is present until a valid wake-up frame is received. It also features a watchdog, a Serial Peripheral Interface (SPI) and automatic adjustment of the I/O levels to the I/O level of the connected microcontroller via the VIO pin.The Microchip ATA6570 is a CAN-FD device and can be easily configured via the SPI as Non-FD (meaning only for Classical CAN), CAN FD silent, CAN FD passive or as CAN FD active device, in order to fulfill the corresponding application requirements.
To purchase the ATA6570 or obtain additional information, please contact any Microchip sales representative or authorized worldwide distributor.
Please see our MikroElektronika click Board! https://www.mikroe.com/ata6570-click

Key Features

High speed CAN PN transceiver Fully ISO 11898-2, ISO 11898-5, ISO 11898-2: 2016 and SAE J2962-2 compliant

Autonomous bus biasing according to ISO 11898-6

Low electromagnetic emission (EME) and high electromagnetic immunity (EMI)

Standard CAN data rate up to 1Mbit/s and CAN FD data rate up to 5Mbit/s (CAN FD)

4Mbit/s SPI interface

Differential bus receiver with wide common mode range

Very low current consumption in Sleep and Standby with fully wake-up capability

Power-down of the complete node via the INH-output (switching off external voltage regulator(s))

Power off mode

Microcontroller Reset mode

Sleep mode

Standby mode

Normal mode

Overtemp mode

Local wake-up via pin WAKE

Remote wake-up pattern according to ISO 11898-5

Remote wake-up frame according to ISO 11898-6 (selective wake-up)

Host wake-up via SPI

Wake-up source recognition

3.3V to 5V microcontrollers can be interfaced directly via the VIO pin

Battery supply and CAN bus pins protected against transients according to ISO7637

High Electro Static Discharge (ESD) Handling Capability on the Bus Pins

Bus pins short-circuit protected to GND and VCC

VS operating voltage up to 28V, VS DC supply voltage up to 42V

Watchdog with independent clock source

Optional cyclic wake-up in watchdog Timeout mode

Watchdog automatically re-enabled when wake-up event captured

Watchdog period selectable

Watchdog reset period selectable

Qualified according to AEC-Q100

Fulfills the OEM Hardware Requirements for CAN Interfaces in Automotive Applications, Rev. 1.3

Fulfills the OEM Requirements for Partial Networking Rev. 2.2

SO14 Package

Built-In Safety features

Transmit data (TXD) dominant timeout function

RXD recessive clamping detection

Power-on Reset (POR)

CAN Bus dominant/recessive clamp detection

SPI with Failure Event detection

Overtemperature protection

Undervoltage detection on VS, VCC and VIO pins

Watchdog with independent clock source

Transceiver disengages from the bus in over-temperature and low power supply mode

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-GBQW

Microchip Technology, Inc

DFN8

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

ATA6630-GLQW

Microchip Technology, Inc

QFN

ATA6625C-GAQW

Microchip Technology, Inc

SOP8

ATA6626-PGQW

Microchip Technology, Inc

QFN