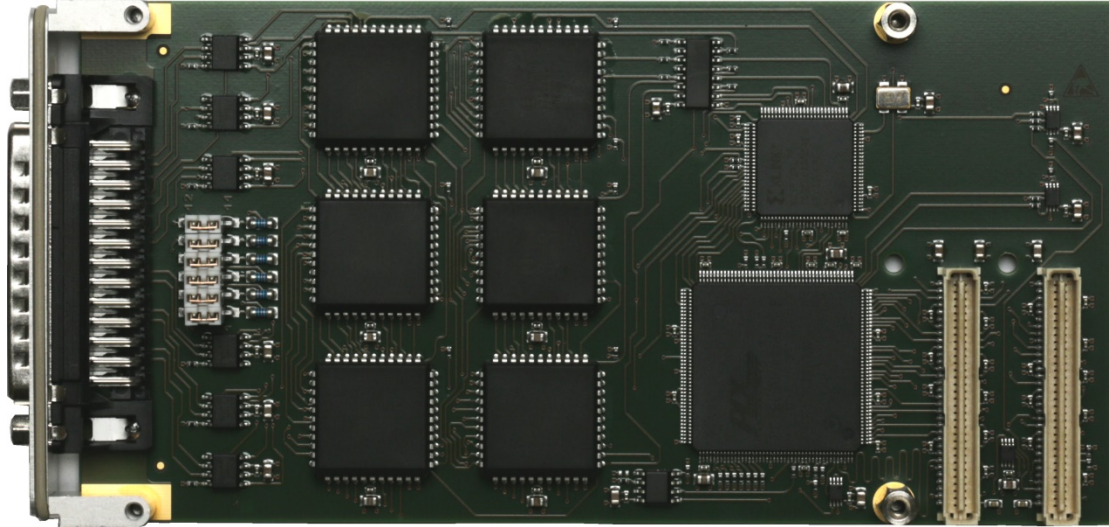# TPMC901   6/4/2 Channel Extended CAN Bus

Application Information

The TPMC901 is a PCI Mezzanine Card (PMC) compatible module.

The TPMC901-10R provides six independent CAN bus interfaces using six Bosch CC770F CAN Controllers. The CC770 offers pin compatibility with Intel's 82527 CAN Controller and is a function replacement. Additionally to the standard data and remote frame, all channels support the extended data and remote frame according to the CAN specification 2.0 part A and B (standard 11 bit identifier and extended 29 bit identifier).

All channels have the capability to transmit, receive and perform message filtering on extended and standard messages.
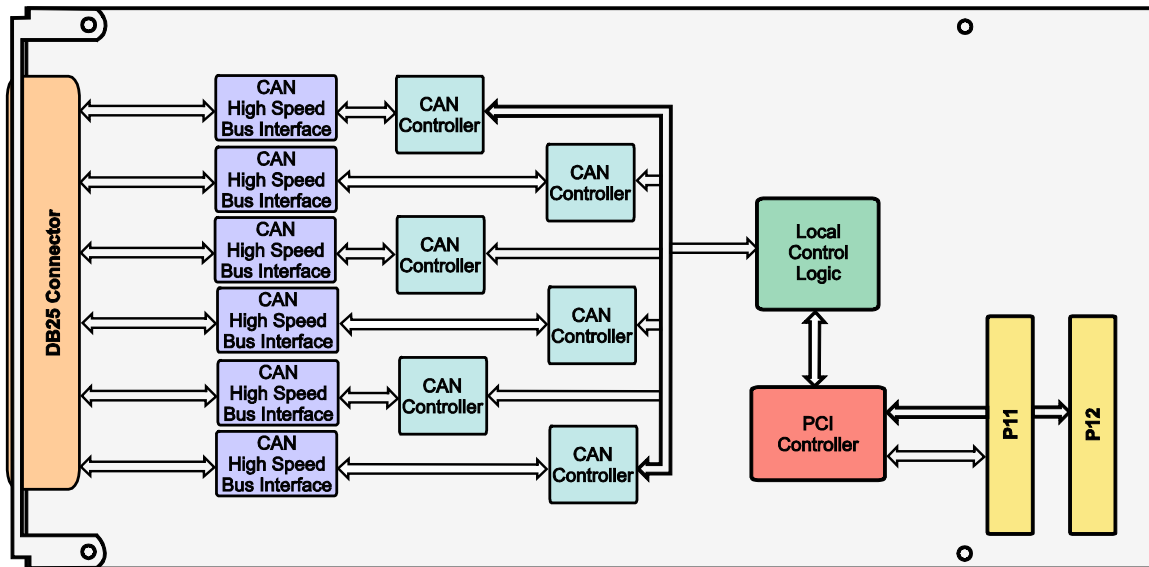
Each channel supports CAN High Speed according to ISO11898 as the physical interface. The bus line termination is selectable by a jumper separate for each bus line pair. The data transfer rates of up to 1 Mbps are supported for a bus line length of 40 m.

The TPMC901-11R supports four CAN bus channels and the TPMC901-12R has two CAN bus channels.

Software Support (TDRV011-SW-xx) for different operating systems is available.

Technical Information

- ❏ Form Factor: Standard single-width 32 bit PMC module conforming to IEEE P1386/P1386.1
  - ❏ Board size: 149 mm x 74 mm
- ❏ PCI 2.2 (33 MHz) compliant interface
- ❏ 3.3V PCI signaling with 5V I/O tolerance
- ❏ CAN Bus interface based on CC770F CAN Controller
  - ❏ Function replacement of Intel's 82527
- ❏ Support of CAN specification 2.0 Part A and B (standard and extended data frames)
- ❏ Programmable global mask
- ❏ 15 message objects of 8 byte data length

- ❏ Powerful error handling
- ❏ Programmable transfer rates
- ❏ Physical interface CAN High Speed (according to ISO 11898) per channel
- ❏ Maximum transfer rate 1 Mbit/s (bus length up to 40m)
- ❏ Operating temperature -40°C to +85°C
- ❏ MTBF (MIL-HDBK217F/FN2 G_B 20°C)
  TPMC901-10R: 621000 h
  TPMC901-11R: 632000 h
  TPMC901-12R: 645000 h

Issue 1.2.2
2018-03-05

Order Information

RoHS Compliant
TPMC901-10R   6 x CAN Bus based on Bosch CC770, ISO11898 CAN High Speed, DB25
TPMC901-11R   4 x CAN Bus based on Bosch CC770, ISO11898 CAN High Speed, DB25
TPMC901-12R   2 x CAN Bus based on Bosch CC770, ISO11898 CAN High Speed, DB25

For the availability of non-RoHS compliant (leaded solder) products please contact TEWS.

Documentation
TPMC901-DOC   User Manual

Software
TDRV011-SW-25   Integrity Software Support
TDRV011-SW-42   VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TDRV011-SW-65   Windows Software Support
TDRV011-SW-82   Linux Software Support
TDRV011-SW-95   QNX Software Support

For other operating systems please contact TEWS.

Related Products
TA302   Cable Kit for modules with DB25 male connector