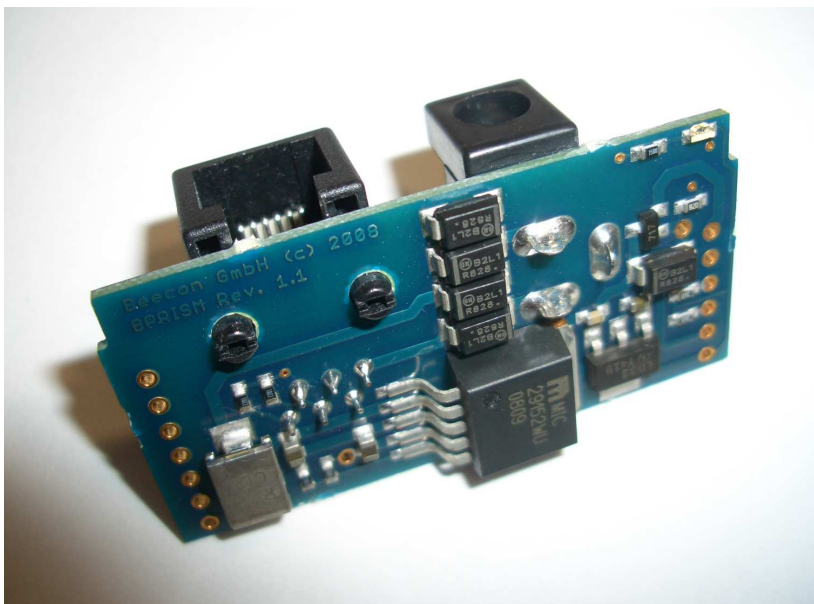


AmbiComp

Backplane Primary Supply Sandwich Module



The Backplane Primary Supply Sandwich Module provides the necessary voltages for the other sandwich modules within an AmbiComp system. Either an external wall-plug power supply with DC output or a battery can be used as a power source. In addition, this module provides access to the AICU bus for debugging purposes (on a RJ12 connector).



Features

- Regulated 5.0 Volt, with a maximum of 0.85 A
- Regulated 3.3 Volt, with a maximum of 0.8 A
- Full bridge rectifier prohibits polarization error
- Resettable fuse as short circuit protection
- Alternative injection of 5V possible
- AICU bus termination and access to AICU bus via RJ12 connector
- Red LED as status display

Specification

The *Backplane Primary Supply Sandwich Module* provides the power for the other AmbiComp modules in an AmbiComp system.

Usually, a wall-plug power supply delivering 6.0 to 7.5 V DC is used as primary source, but a battery may also be used.

After passing a bridge rectifier, which provides protection from polarization errors, and a resettable fuse (PTC resistor), a first voltage regulator provides 5 V. A low-drop regulator is used. The maximum current depends on the input voltage:

Input Voltage	max. allowed current
6 V	0.8 A
7.5 V	0.5 A

This is followed by a 3.3 V regulator. Here the maximum current is 0.8 A.

It is to be noted that the 3.3 V are generated from the 5 V, which means the sum of the two currents must not exceed the value from the table above.

Another limitation in the allowed current consumption lies in the power loss of the voltage regulators.

Both voltages are placed on the bus interface BP1 from where other modules are supplied.

In case that stabilized 5 V are already available from another source, the module can be used just to provide the stabilized 3.3 V.

Additional Functions:

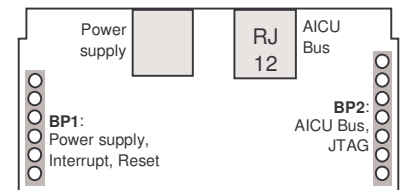
The module provides the correct termination for the bus interfaces (Reset, Backplane Bus).

Furthermore, the backplane bus is provided via an RJ12 connector for debugging purposes.

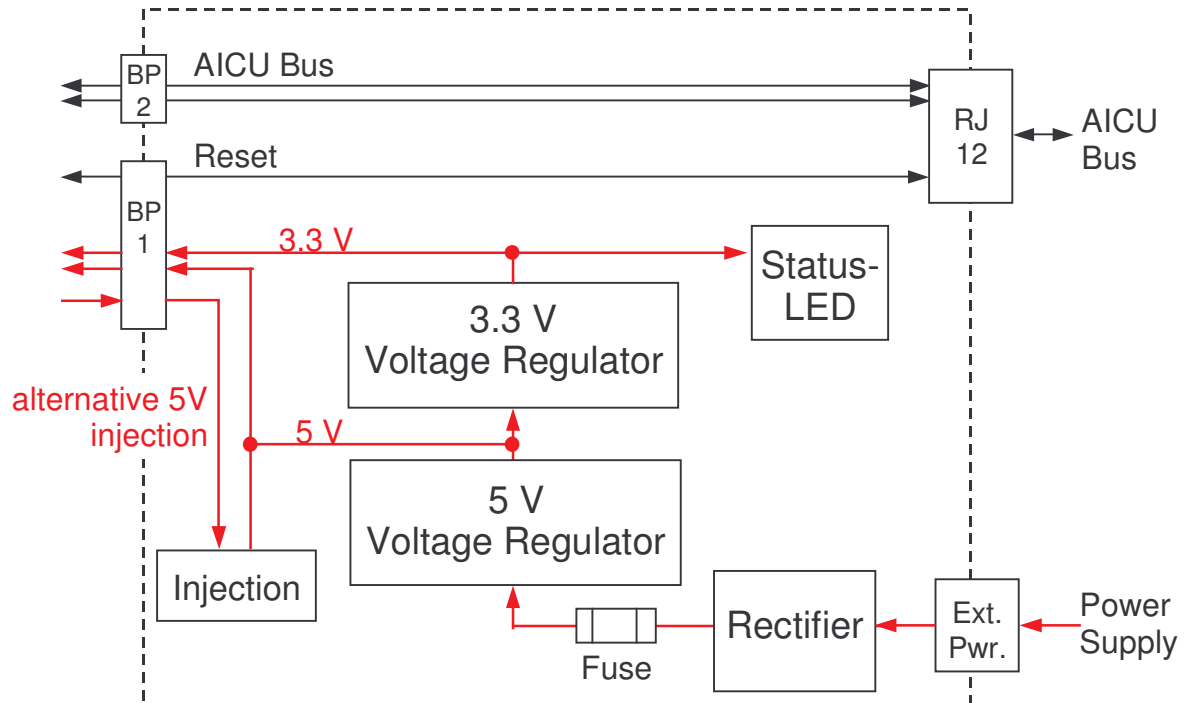
The signal "AICU" (Pin 6 on the RJ12 connector) is supplied by 3..3 V via a protection diode.

Backplane:

Via an AmbiComp-specific interconnection scheme ("backplane"), the *Backplane Primary Supply Sandwich Module* can be connected with other AmbiComp modules.



Detailed dimensioning and pin layout are contained in the data sheet "Sandwich Modules - General Information".



Power Supply

External wall-plug power supply providing 6.0 to 7.5 V DC. Quiescent current is about 80 mA (incl. status LED).

The current consumption depends on the consumers connected.

Mechanical Data

The module measures 49.8 mm x 24 mm. The height is 17 mm.

Environmental Conditions

The *Backplane Primary Supply Sandwich Module* is designed for indoor use. The operating temperature range is -10 to +70 °C.

The storage temperature range is -40 to +85 °C.

The module conforms to the RoHS requirements.

Order Code

102 000 10