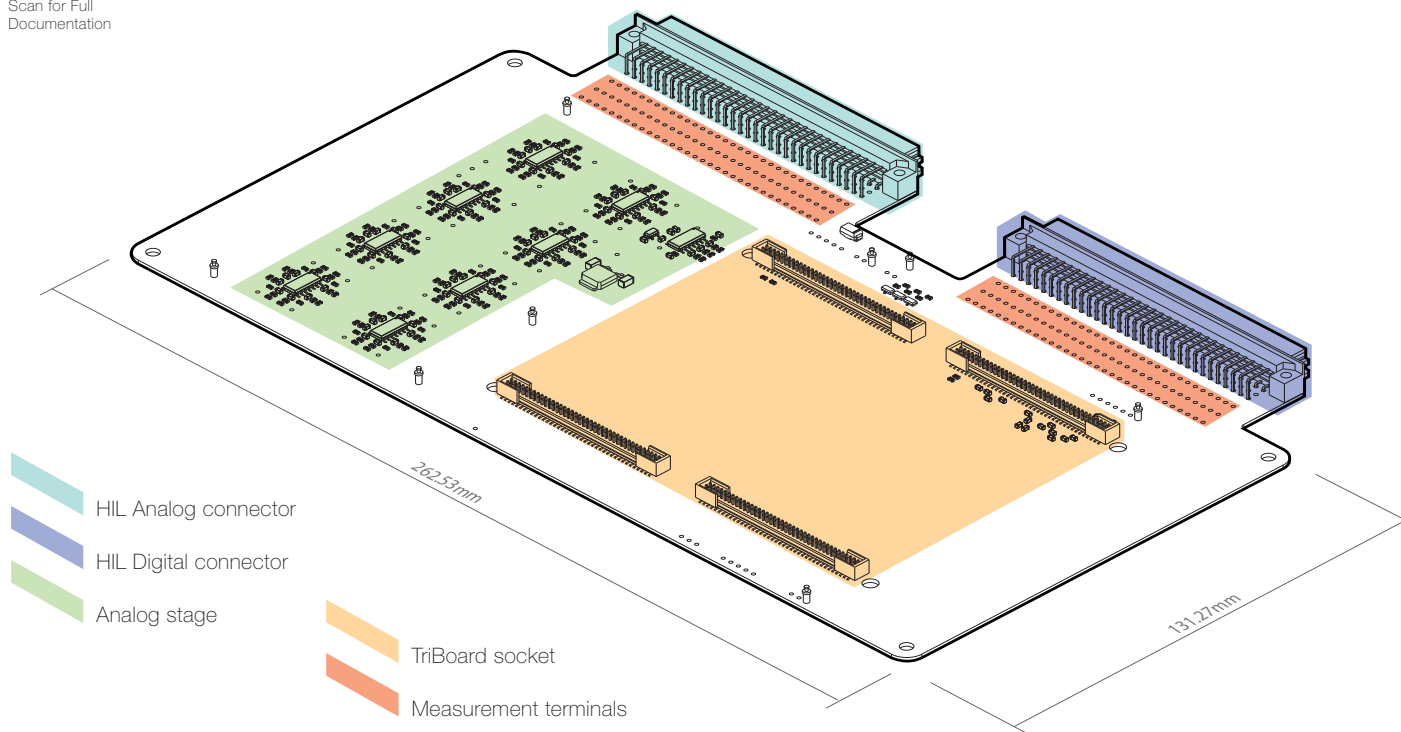




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# HIL Infineon TriBoard Interface

Start testing your control algorithm in no time.



## Applications

Development boards like the TriBoard are essential tools for engineers and developers as they provide a ready-to-use platform to test and experiment with the features and capabilities of specific microcontrollers, particularly in the electric vehicle (EV) market. Furthermore, AURIX™ TC3xx and TC4xx evaluation boards enable engineers to start testing and validating

their control design on real MCU's before the actual controller hardware is available. This approach enables control developers to test early and test often and to also start early to build tests. For this reason Typhoon HIL developed interfacing boards for easy connection of the TriBoard with the Real-Time HIL simulators for easy code development based on HIL technology.

## Features and Benefits

- Start testing and validating your e-Mobility ECU (Electronic Control Unit) control code early in the development phase before final controller hardware is available
- Test early and test often throughout the development with real MCU target
- Automate testing and validation

Table 1: Routing of Analog signals

| HIL Analog Output | TriBoard Analog Input | HIL Analog Input | TriBoard Resolver PWM |
|-------------------|-----------------------|------------------|-----------------------|
| AO1               | AN46                  | AI1              | P00.5                 |
| AO2               | AN47                  | AI2              | P00.6                 |
| AO3               | AN43                  |                  |                       |
| AO4               | AN42                  |                  |                       |
| AO5               | AN30                  |                  |                       |
| AO6               | AN39                  |                  |                       |
| AO7               | AN29                  |                  |                       |
| AO8               | AN38                  |                  |                       |
| AO9               | AN15                  |                  |                       |
| AO10              | AN14                  |                  |                       |
| AO11              | AN13                  |                  |                       |
| AO12              | AN12                  |                  |                       |
| AO13              | AN10                  |                  |                       |
| AO14              | AN9                   |                  |                       |
| AO15              | AN6                   |                  |                       |
| AO16              | AN5                   |                  |                       |
| AO17              | AN28                  |                  |                       |
| AO18              | AN11                  |                  |                       |
| AO19              | AN4                   |                  |                       |
| AO20              | AN27                  |                  |                       |
| AO21              | AN26                  |                  |                       |
| AO22              | AN37                  |                  |                       |
| AO23              | AN1                   |                  |                       |
| AO24              | AN25                  |                  |                       |
| AO25              | AN23                  |                  |                       |
| AO26              | AN33                  |                  |                       |
| AO27              | AN34                  |                  |                       |
| AO28              | AN22                  |                  |                       |
| AO29              | AN19                  |                  |                       |
| AO30              | AN36                  |                  |                       |
| AO31              | AN35                  |                  |                       |
| AO32              | AN18                  |                  |                       |

Table 2: Routing of Digital signals

| HIL Digital Output | TriBoard Digital Input | HIL Digital Input | TriBoard Digital Output |
|--------------------|------------------------|-------------------|-------------------------|
| DO1                | P34.1                  | DI1               | P02.0                   |
| DO2                | P34.2                  | DI2               | P02.1                   |
| DO3                | P34.3                  | DI3               | P02.2                   |
| DO4                | P34.4                  | DI4               | P02.3                   |
| DO5                | P34.5                  | DI5               | P02.4                   |
| DO6                | P21.6                  | DI6               | P02.5                   |
| DO7                | P21.7                  | DI7               | P02.9                   |
| DO8                | P21.2 (Emergency)      | DI8               | P02.10                  |
| DO9                | P21.3                  | DI9               | P02.11                  |
| DO10               | P21.4                  | DI10              | P02.6                   |
| DO11               | P21.5                  | DI11              | P02.7                   |
| DO12               | P21.1                  | DI12              | P02.8                   |
| DO13               | P21.0                  | DI13              | P00.6 (Resolver PWM)    |
| DO14               | ESR0#                  | DI14              | P00.5 (Resolver PWM)    |
| DO15               | ESR1#                  | DI15              | P22.2                   |
| DO16               | PORST# (Reset)         | DI16              | P22.3                   |
|                    |                        | DI17              | P22.0                   |
|                    |                        | DI18              | P22.1                   |
|                    |                        | DI19              | P22.11                  |
|                    |                        | DI20              | P22.10                  |
|                    |                        | DI21              | P22.9                   |
|                    |                        | DI22              | P22.8                   |
|                    |                        | DI23              | P22.4                   |
|                    |                        | DI24              | P22.5                   |
|                    |                        | DI25              | P22.6                   |
|                    |                        | DI26              | P22.7                   |
|                    |                        | DI27              | P20.13                  |
|                    |                        | DI28              | P20.12                  |

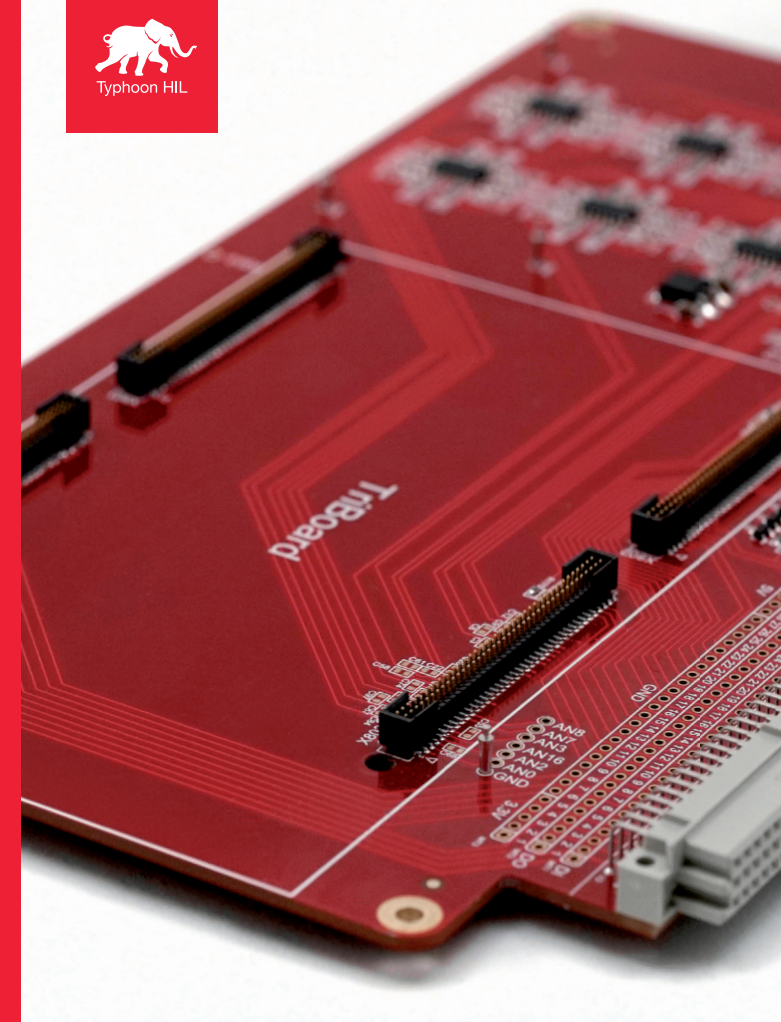
Thank you!

Your order made our  
day, and we hope our  
package returns the  
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## HIL Infineon TriBoard Interface

Interface for Infineon TC3xx and TC4xx  
development boards.

- ✓ Easy-to-reach measurement terminals.
- ✓ No additional tools required.
- ✓ Plug and Play.

[www.typhoon-hil.com](http://www.typhoon-hil.com)