

Requirements Document

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CANbus

CAN-REQ-001: The module shall support CiA Canopen

Description	N/A
Rationale	N/A
Priority	Medium
Status	Draft

CAN-REQ-002: The module shall support standard CAN-bus speeds

Description	N/A
Rationale	N/A
Priority	High
Status	Draft

CAN-REQ-003: The module shall support EN 50325



Draft

Description	CANopen CC and CANopen CC safety application layer and communication profile for embedded networking
Rationale	CANopen CC and CANopen CC safety application layer and communication profile for embedded networking
Priority	Medium
Status	Draft

IO requirements

IO-REQ-001: The module shall have 8 digital inputs

Description	<ul style="list-style-type: none">• The module shall be equipped with 8 digital inputs designed for robust signal acquisition.• Each input supports sufficient attenuation (e.g., up to 20 dB) to ensure proper signal conditioning and compatibility across various applications.• These inputs are compatible with standard digital signal standards, ensuring seamless data transmission and accurate signal representation within the system's operational range.• The design incorporates features that mitigate common issues such as noise interference and signal distortion, ensuring reliable performance under diverse environmental conditions.
Rationale	<p>The requirement for 8 digital inputs is justified by the need to:</p> <ol style="list-style-type: none">1. Support a wide range of sensors, controls, and user interactions.2. Ensure compatibility with existing systems and future expansions.3. Enhance reliability through redundancy and robust error handling.4. Provide a cost-effective, user-friendly solution that aligns with functional and safety requirements.
Priority	Critical
Status	Draft

kas buildsystem requirements

KAS-REQ-001: The System shall have kas as a build system

Description	SYS-REQ-001: System shall utilize Can is nice.
Rationale	N/A
Priority	Critical
Status	Draft

KAS-REQ-002: If INPUT1 is pressed, then the OUTPUT1 shall activate

Description	This requirement defines the system behavior where pressing INPUT1 causes OUTPUT1 to activate.
Rationale	This behavior ensures that the system provides a direct and deterministic response to user input, allowing INPUT1 to control OUTPUT1 as part of the intended user interaction or control function.

Do not do it. Priority:: Critical Status:: Released

system

SYS-REQ-001: System shall utilize Can

Description	d
Rationale	d
Priority	Critical
Status	Draft

SYS-REQ-002: System shall have 8 digital inputs

Description	N/A
Rationale	N/A
Priority	Critical
Status	Draft

SYS-REQ-003: The system shall have 8 analog inputs

Description	N/A
Rationale	N/A
Priority	Medium
Status	Draft