ADCU

Autonomous Driving Control Unit

EAXVA04

Intelligent vehicle control unit designed to control transmission

Multiple Interfaces

CAN, DI, AI, PWM, HSO, H Bridge, 5V outputs, Gyroscope, etc.

Model-Based Environment

MATLAB/Simulink Model-based development capable

Powerful MCU

Infineon ASIL-D rated TC377TP chip

Compatibilities

All-in-one vehicle control HW platform

TECHNICAL CHARACTERISTICS

CAN	Up to 3 CAN bus
H-Bridge	Up to 2 H-Bridge output with 2 supply voltage
KEYON	Up to 1 key signal
Digital Input	Up to 8 channels
Analog Input	Up to 8 channels
Frequency	Up to 4 frequency signal input
High-side Output	Up to 6 channels with 4 PWM outputs configurable
5V Output	Up to 4 ports
Gyroscope	Up to 1 optional

INTERFACE

Interface type	Number	Function	Chip	Connector
Camera interface	8	GMSL2	SOC	Waterproof FAKRA
Gigabit Standard Ethernet	2	100BASE-T/1000BASE-T standard	Switch	2 * Aviation plug
Gigabit Automotive Ethernet	3	100Base-T1/1000Base-T1	Switch	1 * Aviation plug
HDMI	1	1 channel HDMI	SOC	
USB	1	1 channels USB Host support USB2.0, US3.0, USB3.1	SOC	
M.2 KEY M	1	Extended storage	SOC	Internal
RS485	1		SOC	121 PIN-CMC
RS232	3	1 channels for Debug	SOC	
PPS_IN	1	Support 3.3V-16V, hardware config	SOC	
PPS_OUT	4	2 channels 5V or 3.3V output, 2 channels 12V output	SOC	
CAN	2		SOC	
CANFD	6	2 channels support specific frame wake up	MCU	121 PIN-CMC
LIN	4	No wake-up function is required	MCU	
KEYON	3	1 channels for SOC 2 channels for MCU	MCU	
Digital Input	6	Default settings: 4 channels active-high, 2 channels active-low	MCU	
Analog Input	6	Default settings: 2 channels for 5V, 2 channels for 36V, 2 channels are resistance type	MCU	
Digital Low-side output	8	8 channels @ 250mA	MCU	
Digital High-side output	4	4 channels @ 1A	MCU	
5V Sensor power	2	Maximum current 100mA	MCU	
Power Positive	4			
Power Ground	4			
Signal Ground	8			