

INTRODUCING

ANCIT

SMARTWHEELS V1 PRO ECU

POWERED BY NXP S32K344 - (80 PIN)



POWER SUPPLY

- Input: 7V – 28V, 30A Max
- Reverse Polarity & Reverse Current Protection
- Under Voltage Protection
- Software Over Current Protection
- 1000A TVS Surge Protection
- Input Voltage & Current Monitoring



DIGITAL INPUTS

- 4x High Speed Digital Input (0–30V, 60kHz)
- 1x KL15 Ignition Input
- 1x Factory Reset Input (Bootloader Support)



WIRED COMMUNICATION

- 2x CAN FD (Up to 5 Mbps) – Non-Isolated
- 1x CAN FD (Up to 1 Mbps) – Isolated
- 1x RS232 (Up to 250 kbps)
- 1x LIN / K-Line (Up to 20 kbps)



DIGITAL OUTPUTS

- 4x High Side Output – VBAT, 3A (5A Peak), 5kHz PWM
- 2x Low Side Output – 5A (14A Peak), 20kHz PWM
- 4x Adjustable High Side Output – 5V / 12V / VBAT, 500–750mA
- 4x Low Side Output – 500mA, 10kHz PWM
- 4x H-Bridge Output – 4A per Channel
- 12V / 1A & 5V / 1A Protected Outputs



ANALOG INPUTS

- 13x Analog Input (0–5V)
- 8x Precision Pull-Up Analog Input (Temp Sensors)
- 4x 4–20mA Current Loop Input (2/3/4 Wire Supported)



WIRELESS COMMUNICATION

- Onboard ESP32-C3 Wi-Fi & BLE
- Future Ready OTA via Wi-Fi / BLE

PERIPHERALS

- 64 Mbit Flash, 4KB EEPROM
- Onboard Segger J-Link Debugger
- RGB Diagnostic LED
- 10-Pin JTAG Debug Header
- 10-Pin Trace32 Advanced Debug Port

Empower Your Innovation Today!

ANCIT SmartWheels with the NXP S32K344 brings powerful intelligence to your EV and hybrid designs. From precision motor control to smart battery management and hydrogen fuel support, it gives you everything needed to build next-generation vehicles with confidence and ASIL-grade safety.

Contact us now to learn more!



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