



## NEXUS R5 SPECS & FEATURES

### FEATURES

|                                |                         |
|--------------------------------|-------------------------|
| Drive-By-Wire Throttle Support | 2                       |
| Flex Fuel                      | YES                     |
| Closed Loop O2 Control         | Dual Bank               |
| Knock Control                  | Dual                    |
| Variable Cam Control           | Up to 4                 |
| Long Term Learning             | Up to 4D                |
| Data Logging                   | Laptop + Onboard        |
| Anti-Lag Rotational Idle       | YES                     |
| Launch Control                 | YES                     |
| Traction Control               | YES                     |
| Tuning Table Resolution        | 32 x 32 x 8 4D          |
| Engine Protection              | Multi Level             |
| CAN Networks                   | 3                       |
| Nitrous Control Stage          | 6                       |
| Boost Control                  | 4D Closed Loop          |
| CO2 Control                    | YES                     |
| Intake Air Bleed Control       | YES                     |
| Flat Shift Control             | Advanced                |
| Shock Travel & Ride Height     | YES                     |
| Trans Brake                    | YES                     |
| Race Timer                     | YES                     |
| Advanced Torque Management     | YES                     |
| On-board Wideband              | 2 Channel LSU 4.9 / NTK |

### OUTPUTS

|                                    |                                 |
|------------------------------------|---------------------------------|
| Ignition                           | 12                              |
| Injector (peak and hold)           | 18                              |
| Digital Pulsed Outputs (DPO)       | 8                               |
| Power for Ignition Switch          | 1                               |
| Half Bridge Outputs (HBO)          | 4 (2 x H-Bridges/DBW throttles) |
| 8A High Current Outputs (8A HCO)   | 12                              |
| 25A High Current Outputs (25A HCO) | 4                               |

### INPUTS

|  |                      |
|--|----------------------|
| Analog Voltage Inputs (AVI)                  | 23                   |
| Differential Engine Position Inputs          | 2 (Trigger and Home) |
| Synchronised Pulsed Inputs (SPI)             | 10                   |
| Knock Inputs                                 | 2                    |
| Universal Wideband Controllers (NTK/LSU 4.9) | 2                    |
| Ignition Switch Input                        | 1                    |

### OTHER

|  |   |
|--|---|
| Inertial Measurement Sensor  | Onboard, 6 Axis   |
| 4 Channel Oscilloscope   | 50kSa/s per channel, 2ms/Div limit, optional external trigger |
| 5V Sensor Supply   | 2   |
| 8V Sensor Supply   | 1   |
| Sensor Ground  | 2   |
| Spare Ground pins for shields, sensors and low current CAN devices | 2   |

### COMMUNICATIONS

|  |  |
|--|--|
| CAN Bus Networks 1000, 500 or 250 kbit/s                   | 3  |
| High Speed USB 2.0 (USB-C interface) 480 Mbit/s connection | 1  |
| Power up over USB  | Datalogging, settings and firmware upgrade available       |
| Wi-Fi  | 900 kB/s datalog extraction. Hardware lockout for security |

### DATA LOGGING

|                          |         |
|--------------------------|---------|
| Location                 | Onboard |
| Storage                  | 512MB   |
| Max sampling frequency   | 1kHz    |
| Maximum channels per log | 300     |

### DIMENSIONS

|  |  |
|--|--|
| Enclosure (Not including connector protrusion) | 257 x 132 x 51 mm (10.1 x 5.2 x 2 in)                                |
| Overall (Including connector protrusion)       | 257 x 163 x 61 mm (10.1 x 6.4 x 2.4 in)                              |
| Weight   | 1.50 kg (3.307 lb)   |
| Operating Temperature (external)               | -40 to 85°C (-40 to 185°F)   |
| 12 x Onboard Temperature Sensing Zones         | ECU: -40 to 125°C (-40 to 255°F)<br>PDM: -40 to 150°C (-40 to 300°F) |

### ELECTRICAL

|  |            |
|--|------------|
| Power Supply (across power terminals)                | 8 to 22V   |
| Internal positive inline fuse (not user-serviceable) | 32VDC 200A |
| No output static current draw                        | <1A        |
| Low Power Mode (USB)                                 | 4 to 5.5V  |
| Static current draw from USB port                    | 400mA      |