

iAir®



AKTV8

iAIR® INTELLIGENT PNEUMATICS

AKTV8's journey began by developing an integrated control system for air suspension. Our core technology, iAir® incorporates electronics, sensors, and pneumatic control into one automotive-grade controller. The system uses CAN and/or Bluetooth to communicate with a user interface or mobile app for configuration, diagnostics, alerts, and over-the-air software updates.

Unlike other control systems, iAir® is an integrated "made-easy" solution for the commercial truck, RV, automotive and beyond.



CLASS 7-8 TRUCK

- ▶ Lift Axle Control
- ▶ 6X2 Lift Axle Control
- ▶ Cab Suspension Control
- ▶ Air Suspension Control
- ▶ Chassis Solenoid Bank



AUTO OEM & AFTERMARKET

- ▶ Air Controls
- ▶ Power Packs
- ▶ Semi-active Dampers

iAir®



CLASS 7-8 TRAILER

- ▶ Tire Inflation
- ▶ Lift Axle Control



LT. COMMERCIAL

- ▶ Air Suspension & Control
- ▶ Load Estimation
- ▶ Adjustable Damping



RV / TRAILERS

- ▶ Air Suspension
- ▶ Load Estimation
- ▶ Accessory Controls
- ▶ Pneumatic Stabilizers

> HOW IT WORKS

iAir offers two expandable platform modules with up to five points of control with configurable control features designed to meet the needs of the desired application.

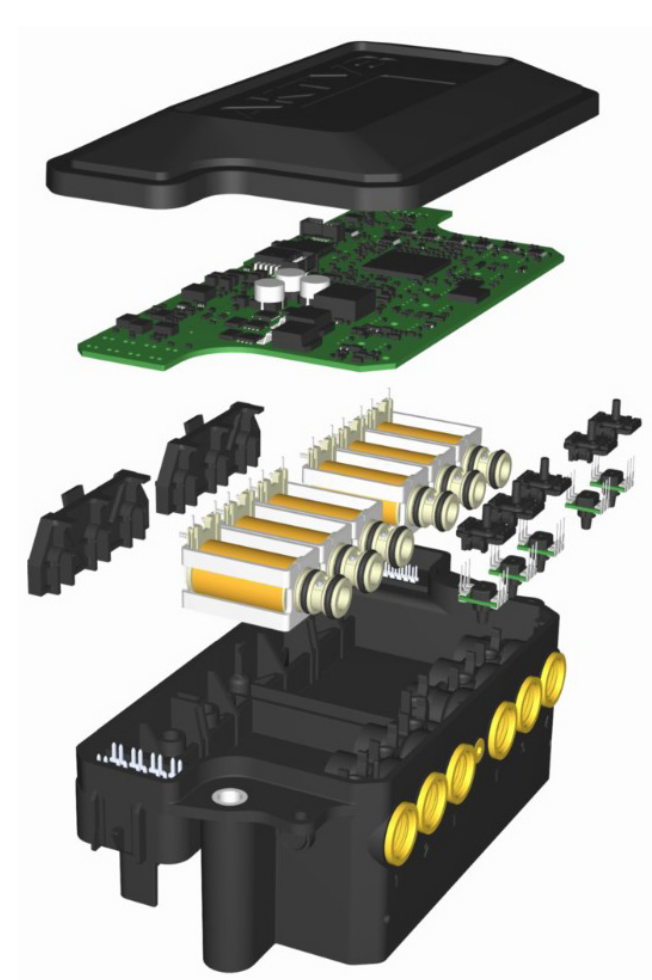
> ELECTRONICS

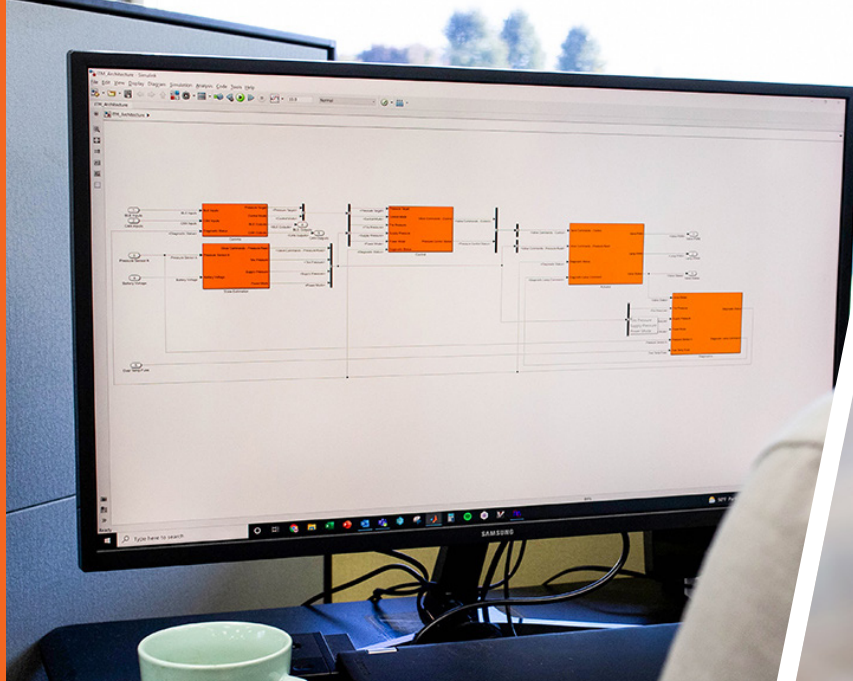
- Onboard accelerometer to monitor road input, acceleration events including impacts, inclinometer, and leveling IMU
- Hall effect sensors provide an internal non-contact height sensor
- Bluetooth communication with other sensors and user interface
- CAN communication supporting J1939 and RV CAN
- Telematics ready
- External drivers capability of up to 35A for external devices including 12V compressors
- Configurable I/O for height sensors, temperature, and/or other sensor inputs

iAir3



iAir6





> SOFTWARE:

- The iAir software is architected to be modular, enabling rapid deployment of new applications.
- Base software is written in C++ while the model-based application code is developed in MATLAB Simulink.
- Software development to ISO26262 standards for safety.
- In-house validation methods for closed loop estimation of height control and pressure control algorithms for numerous iAir® applications.

> USER INTERFACE (HMI) AND MOBILE APP:

- AKTV8 internally develops iOS and Android based mobile apps as a user interface to iAir®.
- The tool also serves as a firmware over the air reflashing tool for iAir®.
- Bluetooth capability can be limited and or disabled for security.
- For on-vehicle applications, AKTV8 has developed a custom capacitive touch LCD with CAN communication that can be externally mounted.

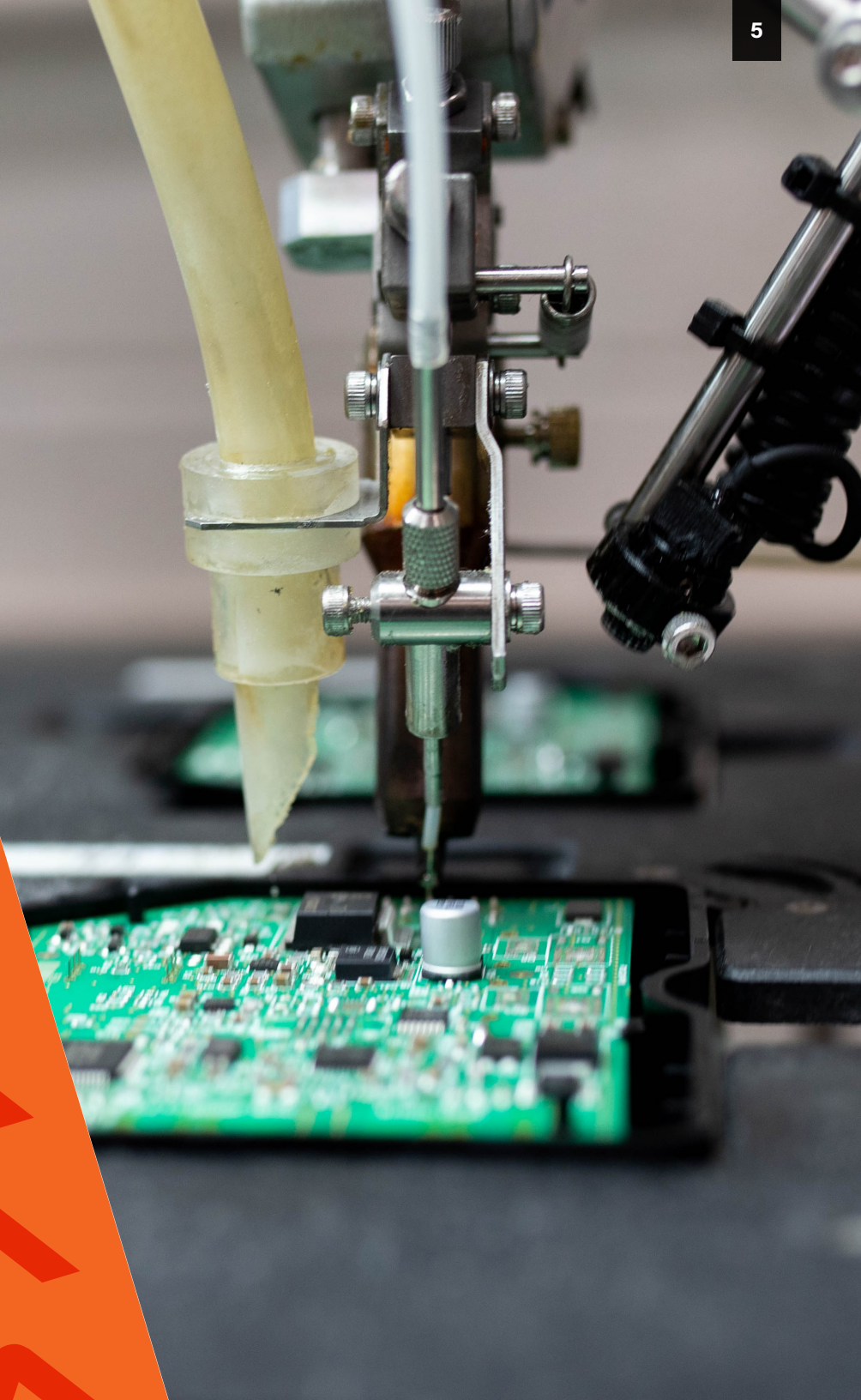
CONTACT US AT (888) 342-3162 TO LEARN MORE ABOUT iAIR®

WHY iAIR®

Electronic controls enable digital control, new features, and intelligent diagnostics resulting in improved performance, safety, increased uptime, and optimized efficiency. iAir's intelligent pneumatic controls are a made-easy solution for multiple transportation and industrial applications. Unlike conventional mechanical, distributed solutions, or hobby-grade electronics, iAir® is integrated, wireless, and validated to OEM standards.



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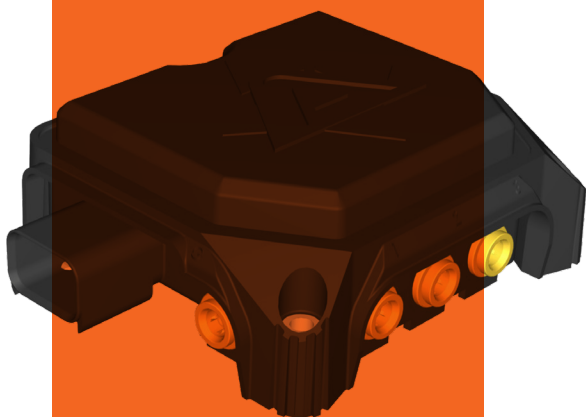


iAir3

iAir3 G1 In production

iAir3 G2 (SOP 2026)

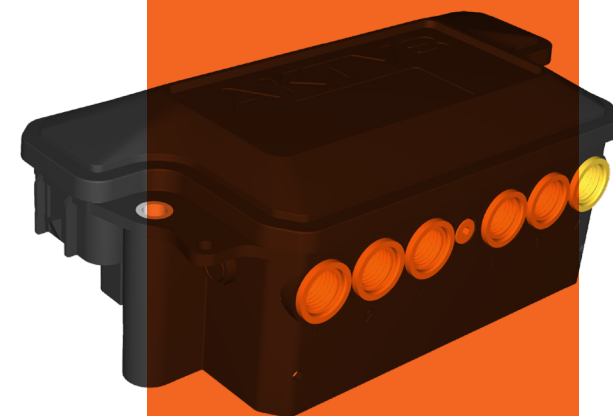
MANIFOLD	Nylon 6-6, 800 PSI burst	Nylon 6-6, 800 PSI burst
MAX VALVES	Up to 3	Up to 3
VALVE TYPES	2-way normally open or 2-way normally closed Orifice size: 2 mm or 4.5 mm	2-way normally open or 2-way normally closed Orifice size: 2 mm or 4.5 mm
FITTINGS	PTC, SI 1/8 - 3/8, Metric 4mm-8mm	PTC, SI 1/8 - 3/8, Metric 4mm-8mm
INPUTS	1 Analog 0-16V or Digital	Up to 8 Analog or Digital, resistor bridge
OUTPUTS	1 high side, 30 amp	1 high side, 30 amp
OUTPUT POWER SUPPLY	none	1 Regulated 5VDC
PRESSURE SENSOR	Up to 2, 0-150 PSI (Front side)	Up to 2, 0-200 PSI (Back side)
OTHER SENSOR	1 internal hall effect height	1 internal hall effect height
ACCELEROMETER/IMU	Tri-axis accelerometer	6 axis IMU
OPERATING VOLTAGE	9-16VDC	9-16V or 18-30VDC
OPERATING TEMPERATURE	-40C - 85C	-40C - 85C
MICROPROCESSOR	NXP S9k	NXP S32k
FUNCTIONAL SAFETY	QM	ASIL B ready
FOTA CAPABLE	Yes	Yes
BLUETOOTH	4.0 BLE	5.0
COMMUNICATION	1-Channel, CAN J1939 or RV CAN	2-Channel, CAN J1939 or RV CAN
WAKE ON	Ignition, BT	Ignition, BT, CAN
DIAGNOSTICS	Base	UDS capable
QUIESCENT CURRENT	<1 mA	<250 micro A
CONNECTOR	6 pin Apex	16 pin TE HDSCS
IP	6K9K	6K9K
FILTRATION	External	Integrated
OVERALL DIMENSIONS	75mm x 120mm x 40mm	130mm x 140mm x 40mm
VALIDATION	ISO16750 Heavy Truck, Chassis mount	ISO16750 Heavy Truck, Chassis mount



iAir6 (SOP 2025)

MANIFOLD	Nylon 6-6, 800 PSI burst
MAX VALVES	Up to 6
VALVE TYPES	2-way normally open or 2-way normally closed Orifice size: 2 mm or 4.5 mm
FITTINGS	1/4NPT or PTC - SI 1/8 -3/8", Metric 4mm-8mm
INPUTS	Up to 6 Analog or Digital
OUTPUTS	2 low side, 3 amp
OUTPUT POWER SUPPLY	1 Regulated 5VDC
PRESSURE SENSOR	Up to 5, 0-200 PSI (Back side)
OTHER SENSOR	2 internal hall effect height
ACCELEROMETER/IMU	6 axis IMU
OPERATING VOLTAGE	9-16VDC
OPERATING TEMPERATURE	-40C - 85C
MICROPROCESSOR	NXP S32k
FUNCTIONAL SAFETY	ASIL B ready
FOTA CAPABLE	Yes
BLUETOOTH	5.0
COMMUNICATION	2-Channel CAN J1939 or RV CAN
WAKE ON	Ignition, BT, CAN
DIAGNOSTICS	UDS capable
QUIESCENT CURRENT	<250 micro A
CONNECTOR	18 pin TE GET
IP	6K9K
FILTRATION	External
OVERALL DIMENSIONS	110mm x 180mm x 43mm
VALIDATION	ISO16750 Heavy Truck, Chassis mount

iAir6



AKTV8



CONTACT US

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call 1(888)-342-3162

***INTELLIGENCE
IN MOTION***