



**APPLIED RADAR, Inc.**

210 Airport Street, Quonset Point, North Kingstown, RI 02852

TEL: 401-295-0062 FAX: 401-295-9911 Internet: [www.appliedradar.com](http://www.appliedradar.com)

---

## **AR-CAS-0210**

### **Processor Control Unit (PCU) for 24 GHz HRR Sensor**

#### **Summary:**

Embedded processor and control unit (PCU) for HRR sensor. Connects to multiple (up to 4) HRR sensors via CAN bus interface. PCU processes HRR sensor data output and provides programmed digital outputs such as LED lights, warning tones (via PWM output) or LCD display. A remote computer may communicate with PCU via a serial RS-232 interface. PCU also supplies DC power to HRR units from a single 12 VDC input. PCU and HRR sensor together form a complete multi-sensor radar detection system.

#### **Applications:**

Collision-Avoidance Radar Processing  
Wireless Sensor Processing and Display  
Industrial Process Control

#### **Processing:**

An embedded processor is used to control and process detection data from multiple HRR sensors. PCU is used to correlate data from multiple HRR sensors and set alarms such as LEDs and warning tones when certain programmed detection criteria are met. Can also be used for processing and display of wireless sensor data such as thermistors or strain gauges.

#### **Power Supply:**

DC Supply: +12 VDC  
PCU provides regulated DC power to up to 4 HRR sensors

#### **Control Inputs:**

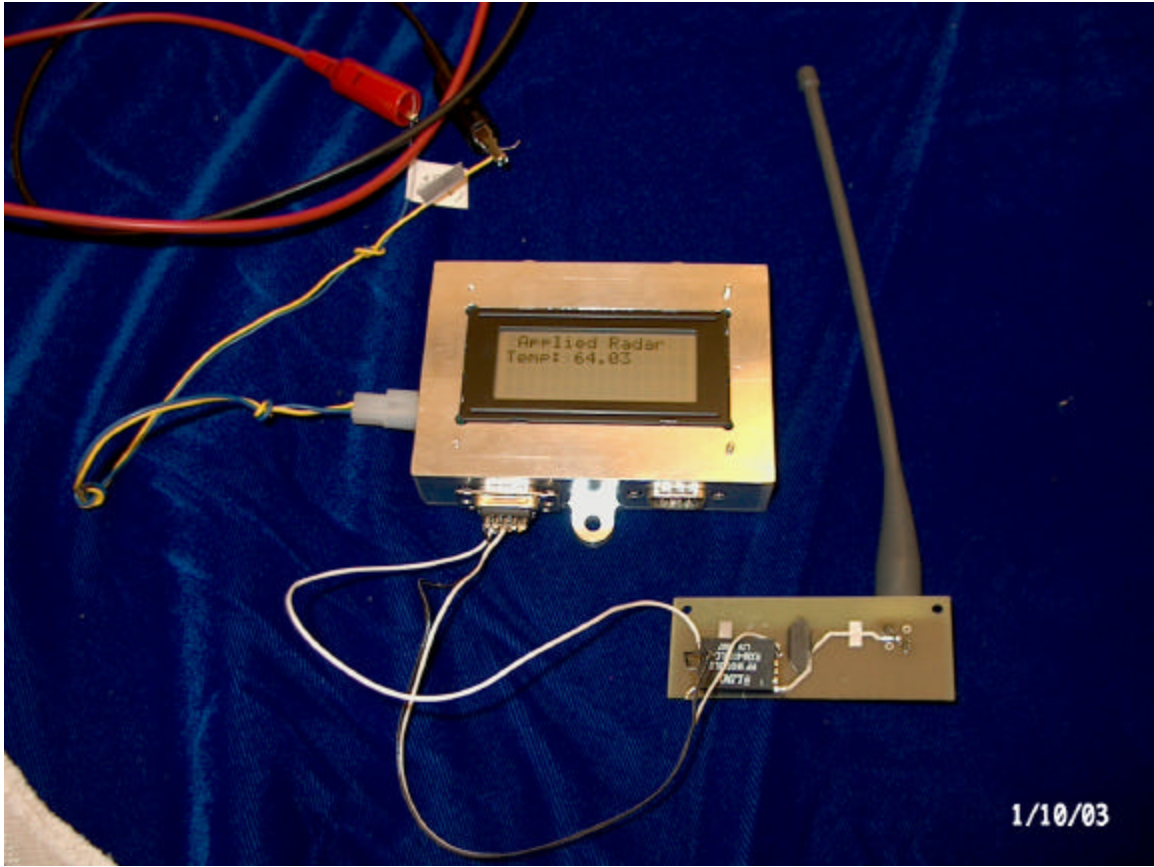
RS-232 serial data input/output.

#### **Outputs:**

Communicates with multiple HRR devices via CAN interface.

#### **Mechanical Dimensions:**

Size: 12cm x 6.3cm x 2.2 cm  
Weight: < 1 lb.



**Figure 1:** Photograph of AR-CAS-0210 Processor Control Unit (PCU) in a wireless temperature sensing application.