

TR9499-WiFi
Battery Powered, WiFi Communicating
Remote Temperature Sensor & Alarm
With Cloud Based Monitoring or Integrated with BAS Systems

Key Features

- One or two channel remote temperature monitoring.
- Battery provides 3-4 year operating life on 2 AA batteries. This monitor can also be powered continuously from a 2-3.6 VDC power source.
- Optional web-logging service records all temperatures and provides email alerts with acknowledgment requirement and escalation alerts if no acknowledgement. Alarm also activates buzzer and flashing LED.
- On-board data logger can log up to 3,072 points, plenty of capacity for short term monitoring even if a local WiFi network is not present.
- Up to 200 WiFi transmitters can easily be integrated into wired BACnet™ IP, Modbus or SNMP networks using an inexpensive 3rd party gateway.
- Data can also be easily routed to any Internet device or to an optional cloud database service (SQL database compatible) to allow data to be viewed on any computer, tablet or smartphone.
- Easily configured via a USB plug-in PC interface.
- User adjustable intervals for logging and transmitting.



The TR9499-WiFi is available with one or two remote temperature probes.

Product Overview

The TR9499-WiFi is a battery operated WiFi transmitter incorporating one or two remote temperature sensor(s) designed for monitoring the temperature in a variety applications including: coolers and freezers, motors and compressors, refrigerant lines, in ducts and cabinets. Three different probes are available that have a range up to -200°C to 125°C. The transmitter is located where a local WiFi signal is available and the probes can be inserted into the target area for monitoring. Can be used as a permanent or temporary monitoring system.

There are three options for reporting the sensor data.

1. AirTest can provide access to a hosted cloud-monitoring website (at a nominal fee) that records all reading and allows the user to set alarm levels. Upon an alarm, an email and/or text message can be sent to designated individuals. If receipt of the alarm message is not acknowledged, the alarm message can be escalated to a second tier of responders. Historical readings can be graphed or downloaded.
2. Data from the sensor can be routed to any online database (SQL database compatible). Information is available From AirTest on how to interpret the data packets from the sensor.
3. Using an using the Babel Buster WiFi-to-Wire gateway, data can sent directly to a local wired network using BACnet, Modbus or SNMP thereby allowing use of a local BMS for data storage, alarm and control.

Wi-Fi Details

- 12dBm 2.4 GHz 802.11b/g Wi-Fi module
- Communicates with Industry Standard Access Points
- Supports WEP128, WPA-PSK (TKIP), and WPA2-PSK (AES)
- Small data packets (~75 bytes)
- Supports DHCP or Static IP
- Channel agility
- FCC, CE, and IC Class B compliant

Hosted Cloud Web Logging Service

AirTest also provides a web logging (WL) option with all Wi-Fi communicating products that allows the user to automatically log sensor information to a cloud-based database for a nominal monthly fee. This is ideal for applications where an ongoing, tamperproof record of readings is important. The webpage interface also allows for automatic report generation, setting of alarms, email and text alarm messaging, requirement of alarm acknowledgment and alarm escalation. Web logging packages are available for 1, 2 or 3 years.

Link to: [AirTestCloudMonitoringOverview.pdf](#)



Installation

The transmitter is located outside the cooler/freezer or location to be monitored and the plug-in (RJ45) remote temperature sensor is routed inside the target device. An easy to use PC program allows fast setup of WiFi communication parameters and desired network/web destination for the transmitter data.



A Wide Variety Of Connection Options

The TR9499-WiFi offers a number of ways to stream the data from the sensor to a cloud database or a building control device or network.

1. For monitoring applications there is the AirTest Cloud server that can store and graph WiFi transmitter data on the web. Email and text alarms are also available
2. For control applications the data from the sensor can be streamed to other Internet protocol-capable building controllers (Driver needed to translate WiFi UDP data packets).
3. To link the WiFi signal to a wired BACnet IP, Modbus or SNMP network the inexpensive [Babel Buster Gateway \(BB2-7010-06\)](#) provides an ideal and easy-to-implement integration tool for up to 200 AirTest WiFi transmitters.

Specifications TR9499-WiFi

Technology: RTD

Measurement Range: 3 Probe options up to -200C to 125°C (3 point NIST calibration available)

Resolution: 0.2°F (0.1°C)

Power

Battery: Two (2) 3.6 vdc Lithium Thionyl Chloride

Battery Life: up to 157,680 transmissions

External Power (optional): 5-24v DC or AC. 1A peak current, 20mA average current

Wi-Fi

Transmission rate: User programmable

Log rate: User programmable

Broadcast: 12dBm 2.4 GHz 802.11b/g Wi-Fi module

Compatibility: Communicates with Industry Standard Access Points

Encryption: Supports WEP128, WPA-PSK (TKIP), and WPA2-PSK (AES)

General: Small data packets (~75 bytes), Supports DHCP or Static IP, Channel agility

Data Packet Spec Link: [TR9X99UDPSpec.pdf](#)

Product Manual Link: [AirTestWifiman.pdf](#)

Certification: FCC, CE, and IC Class B compliant

Weight: 5 oz

MADE IN THE USA



This device contains transmitter module

FCC ID: T9J-RN171 IC: 6514A-RN171

US Patent: 6721546 B1

Models (includes mounting bracket and transformer)

TR9499-WiFi-1C: One channel temperature monitor

TR9499-WiFi-2C: Two-channel temperature monitor

Temperature Probes Available (Suffix to above model no)

TRP1: 6' ribbon cable, 4" stainless steel probe (-40 to 105°C)

TRP2: 6' round cable, 2" stainless steel probe (-80 to 125°C)

TRP3: 6' round braided stainless steel cable and 4" stainless steel probe (-200 to 125°C)

Calibration: Certificate of conformance provided with all probes also 3 point NIST Calibration available for all probes for additional charge.

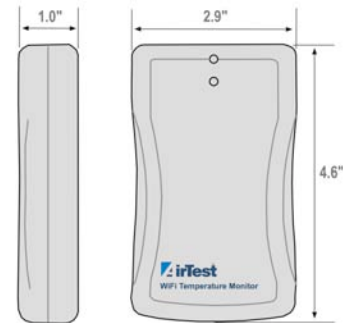
Web Logging Packages (ordered separately)

WL1: One year of web logging for one transmitter

WL2: Two years of web logging for one transmitter

WL3: Three years of web logging for one transmitter

Dimensions



Other WiFi Products available from AirTest:

TR9299-WiFi: CO₂ and Temperature

TR9399-WiFi: Temperature, Dew Point

TR9389-WiFi: Temperature, %RH

Zigbee Versions also available (Xbee Pro)

10/06/14

AirTest™ Technologies Inc. specializes in the application of cost effective, state-of-the-art air monitoring technology to ensure the comfort, security, health and energy efficiency of buildings.

