

## TR9699-WiFi Battery Powered, Wire-2-WiFi Transducer Converts 4-20 mA Signal to WiFi

### Key Features

- Designed to take one or two 4-20 mA analog signals and transmit reading values over standard WiFi networks.
- Data is relayed at a user-defined interval using UDP packets that are easily interpreted by most IP communicating devices. Low bandwidth, 75 bytes per transmission.
- Battery provides 3-4 year operating life on 2 AA lithium batteries.
- This monitor can also be powered continuously from a 2-3.6 VDC power source (plug in transformer included).
- Easily configured via a USB plug-in PC interface.
- User adjustable intervals for logging and transmitting.
- On board visual and audible alarm that can be configured during setup if desired.
- AirTest offers a variety of ways of handling sensor data to interface with various types of equipment and control systems.



*The TR9699-WiFi can connect up to two 4-20 mA sensor outputs.*

### WiFi to Where?

The TR9699-WiFi is a battery operated WiFi transmitter incorporating two 4-20 mA analog inputs. This Analog-2-WiFi product provides the ability to convert any analog signal to WiFi. Once on a WiFi network, Airtest offers a variety of methods of integrating the sensor data into existing systems. All AirTest WiFi transmitters offer four options for relaying and using the sensor data.

1. **WiFi-2-Cloud:** AirTest can provide a hosted cloud-monitoring website (at a nominal fee) that records all reading and allows the user to set alarm levels. Alarm messages can be sent via email or text and include the ability to provide alarm acknowledgment and escalation. Data can also be relayed to a 3<sup>rd</sup> party device.
2. **WiFi-2-Web:** Data from the sensor can be routed to any web-connected IP communicating platform including websites, databases or controllers (i.e. Tridium). Requires UDP packet translation.
3. **Wifi-2-Wire:** Using the Babel Buster WiFi-to-Wire gateway, data can be 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. Supports up to 200 Wifi sensors.
4. **Point-2-Point:** AirTest offers the [GW4201](#) which can receive a two channel WiFi signal from any of AirTest's WiFi products and provide two 0-10 V outputs that can be fed into one or more remotely located control devices. It is designed to be integrated into an existing WiFi network, or a private network can be created, that is separate from any existing networks (often preferred by security conscious IT managers).

#### 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

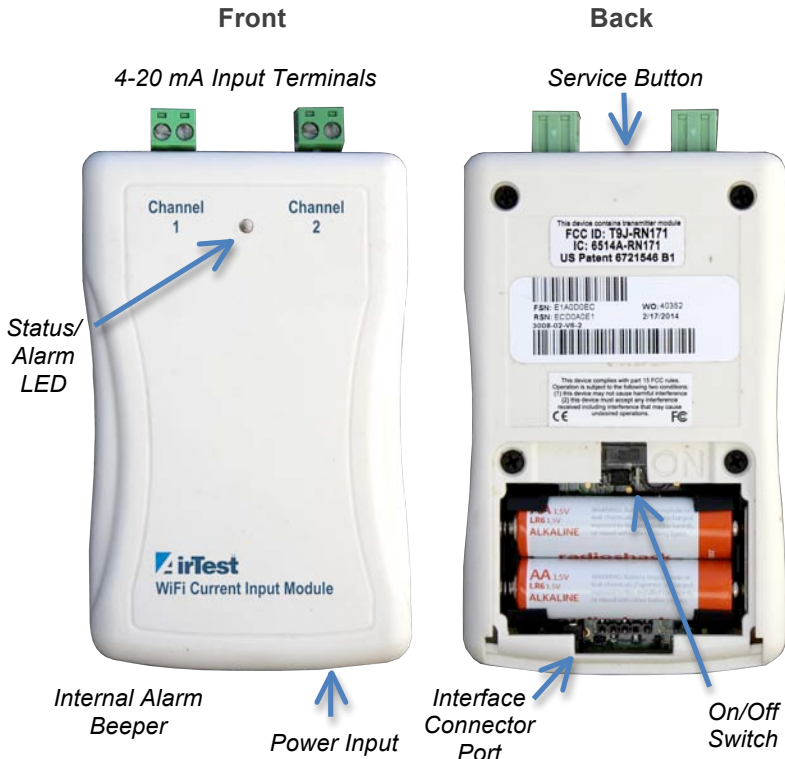
## Wifi-2-Cloud: Web Logging Service

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. Data received by the cloud service can also be passed on to other web connected devices.

Link to: [AirTestCloudMonitoringOverview.pdf](#)



## Product Profile



The TR9699 is provided with a metal mounting bracket and plug in transform for optional, direct power operation. The custom USB interface cable and configuration software must be ordered separately (PN: CB9999).

## Specifications TR9699-WiFi

### Power

**Battery:** Two (2) 3.6 vdc AA Lithium Thionyl Chloride  
**Battery Life:** up to 157,680 transmissions (Typically 3-4 yrs)  
**External Power (optional):** 2 -3.6 VDC using power adaptor.

### Wi-Fi

**Sensor Setup:** Transmitter is configured using PC software and custom USB interface cable. Adjustments include:

- WiFi network identification and log in
- IP destination for data
- Measurement interval (2-60 min)
- WiFi radio broadcast interval

### Communication Format:

**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 UDP data packets (~75 bytes)

**Connection:** Supports DHCP or Static IP, Channel agility

**UDP Data Packet Spec:** [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

**Model (includes mounting bracket and transformer)**

**TR9699-WiFi:** Two-channel 4-20mA input

Users will need at least one custom USB interface cable for AirTest TR9X99 products and software PN: CB9999

**Web Logging Packages (ordered separately)**

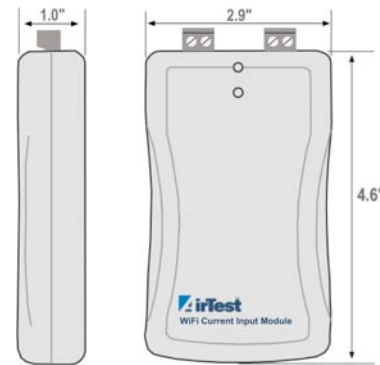
**WL1:** 12 sensor-months of logging

**WL2:** 24 sensor-months of logging

**WL3:** 36 sensor-months of web logging

A sensor month is one month of web-logging for one, two channel WiFi transmitter.

### Dimensions



**Other WiFi Products available from AirTest:**

**TR9299-WiFi:** CO<sub>2</sub> and Temperature

**TR9399-WiFi:** Temperature, Dew Point

**TR9389-WiFi:** Temperature, %RH

**TR9499-WiFi:** Remote temperature probes.

Zigbee Versions also available (Xbee Pro)

More Product Info: [www.AirTest.com/wifi](#)

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