



T24-SAF/i

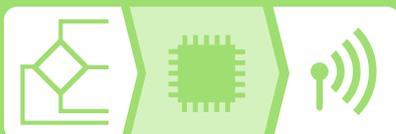
mantracourt

## Wireless Strain Bridge Transmitter Module for Fast Measurements



### Product Features

- Ultra-fast update rate of 2000 per second
- Wireless range up to 800 m (2,600 ft)
- Low power mode for long battery life
- Miniature PCB for OEM integration
- Free Visualisation software



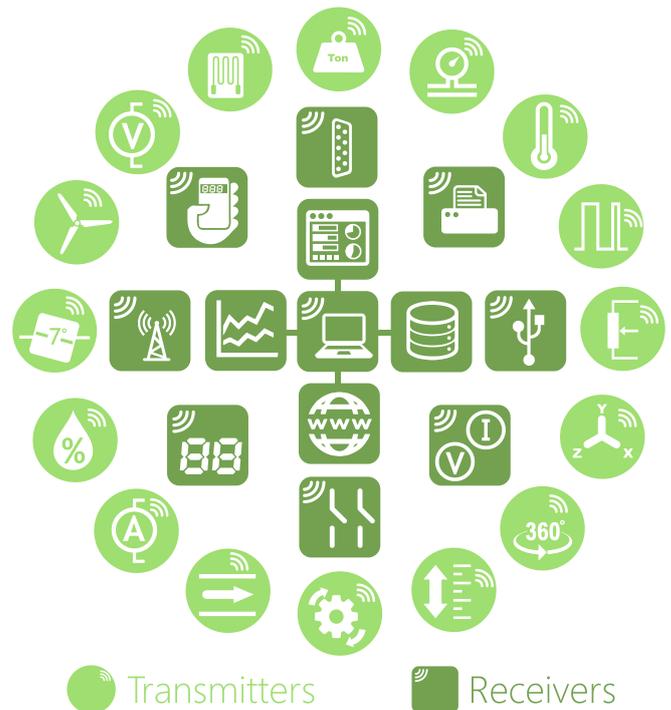
### Introduction

The T24-SAF transmitter connects to strain bridge transducers such as load cells, torque sensors, strain gauges and pressure modules and forms part of the T24 modular telemetry system. The data transmitted by the T24-SAF can be received by multiple T24 receivers that include handheld readers, analogue outputs and computer interfaces.

T24 transmitters have been designed for battery operation and support an ultra low-power sleep mode whilst offering class leading wireless coverage and range. A choice of enclosures enabling battery connection, field connectivity and environmental sealing up to IP67 ensure these modules provide a flexible solution to your wireless sensor requirements.

The T24-SAF is a 2000 samples per second (fixed) version of the T24-SA for high speed monitoring. T24-SAF provides 5 V excitation to drive transducer loads down to 85 ohms. This transmitter is highly accurate, low noise and outputs in nV/V giving quality measurements from a wide range of strain bridge transducers.

### T24 System Overview



T24 Wireless Telemetry Sensor System is a modular wireless solution for industrial sensor applications.

High accuracy, high quality measurement is interfaced with simple yet powerful configuration and monitoring software.

## Specifications

### Measurement Specifications

<b>Strain gauge system</b>	4 wire
<b>Strain gauge excitation</b>	5 Vdc
<b>Strain gauge resistance (min )</b>	85 Ω
<b>Strain gauge sensitivity (max)</b>	3.1 mV/V
<b>Offset temperature stability (max)</b>	4 ppm/°C
<b>Gain temperature stability (max)</b>	5 ppm/°C
<b>Non linearity before linearization (max)</b>	25 ppm of FR
<b>Internal resolution/Bits</b>	16,000,000 / 24
<b>Noise free resolution/Bits at 2 Khz per second</b>	8,000/ 13
<b>Transmission rate</b>	2000Hz

### Battery Life

Based on transmitting results at 3 per second , 350R strain bridge

<b>Pair AA cells constantly on</b>	30 hours
<b>Pair AA cells 12 sessions per day of 5 mins</b>	30 days
<b>Pair DD cells constantly on</b>	5.5 days
<b>Pair DD cells 12 sessions per day of 5 mins</b>	4.5 months

### Power Supply

<b>ACMi and OEM module</b>	2.1 to 3.6 Vdc
<b>ACM</b>	5 to 18 Vdc

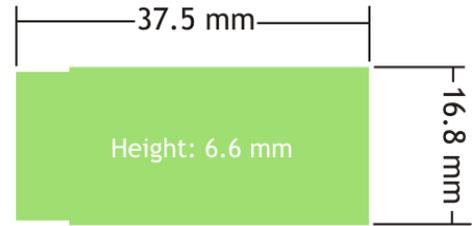
### Radio

<b>Radio type</b>	Licence exempt transceiver
<b>Radio frequency</b>	2.4 GHz
<b>Transmit power</b>	10 mW
<b>Range</b>	Up to 800 m

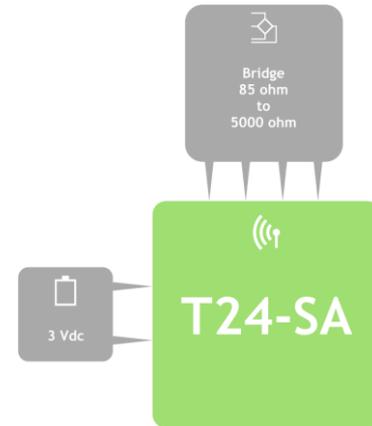
### Environmental

<b>Operating temperature range</b>	-20 to 55 °C
<b>Storage temperature range (no batteries)</b>	-40 to 85 °C
<b>Maximum humidity</b>	95% non-condensing
<b>IP rating (ACM and ACMi)</b>	IP67/Nema4

## Mechanical



## Electrical



## Order Codes

### T24-SAfe

Wireless strain bridge (fast) OEM transmitter module for external antenna

### T24-SAfi

Wireless strain bridge (fast) OEM transmitter module with antenna

### T24-ACM-SAf

Wireless strain bridge (fast) transmitter module in IP67 enclosure supporting two D batteries or external power supply.

### T24-ACMi-SAf

Wireless strain bridge (fast) transmitter module in IP67 enclosure for two AA batteries

### T24-ACMm-SAf

Wireless strain bridge (fast) transmitter module in miniature IP50 enclosure

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