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# MULTIPLE POINT WIRELESS TEMPERATURE SENSORS

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## ABSTRACT

Computerization of analytical instruments has now become a few decades old and is a well accepted system for very fast and accurate measurements. Wireless sensor system adds an extra feather to its hat which provides an easy way to remote sensing of multiple physical parameters, particularly when it is very difficult to reach the point of interest. Of course there exist, for a prolonged length of time, different techniques for sensing and measuring data from a remote place, but with the tremendous advancement of today's digital communication technology and introduction of modern digital communication transceivers in the ISM radio frequency bands, the wireless sensors acting under a host computer can even communicate among themselves. Now the normal trend is to use this system of sensors in analytical instrumentation. Herewith, we are going to discuss one of such sensor systems that can be used to access remotely placed sensors of temperature (or other physical parameter) by using ultra high frequency wireless digital communication in the ISM band.

**Keywords:** Analogue to Digital Converter, ISM band. Counter-Decoder, Frequency Counter, IC Temperature Sensors. Digital Communication, RF modules.

**INTRODUCTION**

Multiple point wireless sensor system is a special communication system in which multiple physical parameters are measured from a remote place using radio frequency wave and digital communication techniques. Introduction of computer adds an extra facility of storing the measured data at a very fast rate, reliably and accurately. And this allows us to process the same, afterwards, according to our requirements.

As for example temperature of an object is an important physical parameter and if measured at different points of the object with multiple sensors, and resulting data are stored in a PC, the computer can show graphically, with a proper software, the temperature gradient along the surface of the object. The present article describes one of such wireless sensor systems that can be used to measure temperature (or other physical parameters) at eight different points, and that is from a remote place.

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