



## Internet of Things –Sensor Networks Standards Package

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These standards together provide standards and guidance for sensor networks and the organization of the entities that comprise such a networks.

### **INCITS/ISO/IEC 30128:2014[2021]**

Information technology - Sensor networks - Generic Sensor Network Application Interface

This standard specifies the interfaces between the application layers of service providers and sensor network gateways, which is Protocol A in interface 3, defined in ISO/IEC 29182-5. This International Standard covers:

- description of generic sensor network applications' operational requirements,
- description of sensor network capabilities, and
- mandatory and optional interfaces between the application layers of service providers and sensor network gateways.

### **INCITS/ISO/IEC 29182-1:2013[R2019]**

Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 1: General overview and requirements

This standard provides a general overview of the characteristics of a sensor network and the organization of the entities that comprise such a network. It also describes the general requirements that are identified for sensor networks.

### **INCITS/ISO/IEC 29182-2:2013[R2019]**

Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 2: Vocabulary and terminology

This standard is intended to facilitate the development of International Standards in sensor networks. It presents terms and definitions for selected concepts relevant to the field of sensor networks. It establishes a general description of concepts in this field and identifies the relationships among those concepts. It may also be used as guidance for development of other parts of ISO/IEC 29182 and any other sensor network related standard.

### **INCITS/ISO/IEC 29182-3:2014[R2019]**

Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 3: Reference architecture views

This standard provides Sensor Network Reference Architecture (SNRA) views. The architecture views include business, operational, systems, and technical perspectives, and these views are presented in functional, logical, and/or physical views where applicable. ISO/IEC 29182-3:2014 focuses on high-level architecture views which can be further developed by system developers and implementers for specific applications and services.

### **INCITS/ISO/IEC 29182-4:2013[R2019]**

Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 4: Entity models

The purpose of the ISO/IEC 29182 series is to:

- provide guidance to facilitate the design and development of sensor networks,
- improve interoperability of sensor networks, and
- make sensor network components plug-and-play, so that it becomes fairly easy to add/remove sensor nodes to/from an existing sensor network.

This standard presents models for the entities that enable sensor network applications and services according to the Sensor Network Reference Architecture (SNRA).

### **INCITS/ISO/IEC 29182-5:2013[R2019]**

Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 5: Interface definitions

This standard provides the definitions and requirements of sensor network (SN) interfaces of the entities in the Sensor Network Reference Architecture and covers the following aspects:

- interfaces between functional layers to provide service access for the modules in the upper layer to exchange messages with modules in the lower layer;
- interfaces between entities introduced in the Sensor Network Reference Architecture enabling sensor network services and applications.

### **INCITS/ISO/IEC 29182-6:2014[R2019]**

Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 6: Applications

This standard describes and provides:

- a compilation of sensor network applications for which International Standardized Profiles (ISPs) are needed,
- guidelines for the structured description of sensor network applications, and
- examples for structured sensor network applications.

It does not cover ISPs for which drafting rules are described in ISO/IEC TR 10000. Due to the generic character of ISO/IEC 29182, fully developed ISPs will not be included in this International Standard.

### **INCITS/ISO/IEC 29182-7:2015[2021]**

Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 7: Interoperability guidelines

This standard provides a general overview and guidelines for achieving interoperability between sensor network services and related entities in a heterogeneous sensor network.

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## **INCITS/IoT Technical Committee**

The [INCITS/Internet of Things](#) will address standardization in the area of Internet of Things, Digital Twin, and related technologies including Maritime, underwater IoT, and Digital Twin applications.

- Serve as the focus and proponent for JTC 1's standardization programme on the Internet of Things and Digital Twin, including their related technologies.

- Provide guidance to JTC 1, IEC, ISO and other entities developing Internet of Things and Digital Twin related applications.

INCITS/Internet of Things is the U.S. TAG to ISO/IEC JTC 1/SC 41.

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## **ABOUT INCITS**

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