

IIDC

Intelligent Industrial Development Connector

Overview

Keyssa's Intelligent Industrial Development Connector "IIDC" enables RF near-field data transfer for a variety of interfaces including USB FS, CAN, I2C, SPI, RS232, and differential inputs up to 3Gbps. The IIDC combines two Keyssa KSS104 60GHz near-field connectors supporting speeds up to 6Gbps and an NXP LPC1549 ARM Cortex-M3 microcontroller for data, monitoring, and control functions. This provides a very flexible platform that can be tailored to the application requirements.

The IIDC provides customers early access to a development environment designed to test the capabilities of Keyssa's 60GHz technology. Although the IIDC can be used in production environments, it can also be customized to suit specific application needs.

Keyssa's IIDC is housed in a circular MIL-DTL-38999 III standard connector shell.

Please contact Keyssa's Industrial team to discuss your specific requirements and applications.

APPLICATIONS

- Robotics
- Aerospace
- Sub Sea
- Oil & Gas
- Mining
- Agriculture
- Mass Transit
- Energy
- Solar
- Defense
- Medical
- Automation & Control

KEY FEATURES

All-in-one Connector contains all components for 60GHz link system integration

Circular MIL Spec Connector MIL-DTL-38999 III for self-alignment with appropriate mechanical features in the device lid

Microcontroller Supported Interfaces

- USB F
- CAN
- I2C
- UART
- UART data link to Keyssa Connector
- SPI monitor and control link to Keyssa Connector

Microcontroller for monitoring and link control

Optional connected interfaces through MMCX

- Low-speed single ended up to 200 Mbit/s
- Mid-speed differential up to 500 Mbit/s
- High-speed differential up to 3 Gbit/s
- Coexists with other wireless interfaces
- USB & MMCX connectors for easy connections

Commercial Operating Temperature

- 0 - 70 °C

Header Functions and Pin Descriptions

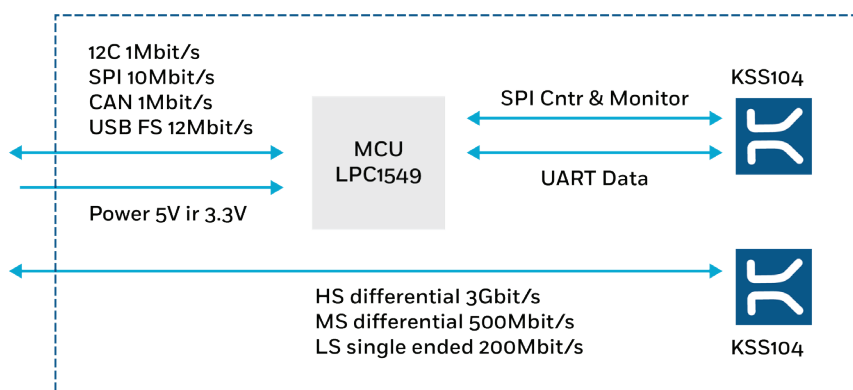
The IIDC uses two, 0.050-inch center, 10 pin headers, one for the MCU programming header and the other for the communication links for the UART/I2C/CAN/SPI from the MCU. The Communication Header has dedicated I/O pins for the various low speed protocols (UART/I2C/CAN/SPI). These go directly to the MCU's dedicated and configured I/O pins.

Development Environment

The IIDC uses the NXP LPC1549 microcontroller in its design to connect to the Keyssa KSS104 60Ghz RF connectors. The development environment is built around LPCOpen and examples from NXP. LPCOpen is an extensive collection of free software libraries (drivers and middleware) and example programs that enable developers to create multifunctional products based on LPC microcontrollers. In the IIDC, the LPC1549 microcontroller can be used in three ways:

1. To send and receive data over the Keyssa Connector
2. To monitor the Keyssa Connector
3. To control the Keyssa Connector

IIDC Overview



Ordering information

Contact your local Keyssa representative

For additional information on IIDC, please email info@keyssa.com

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