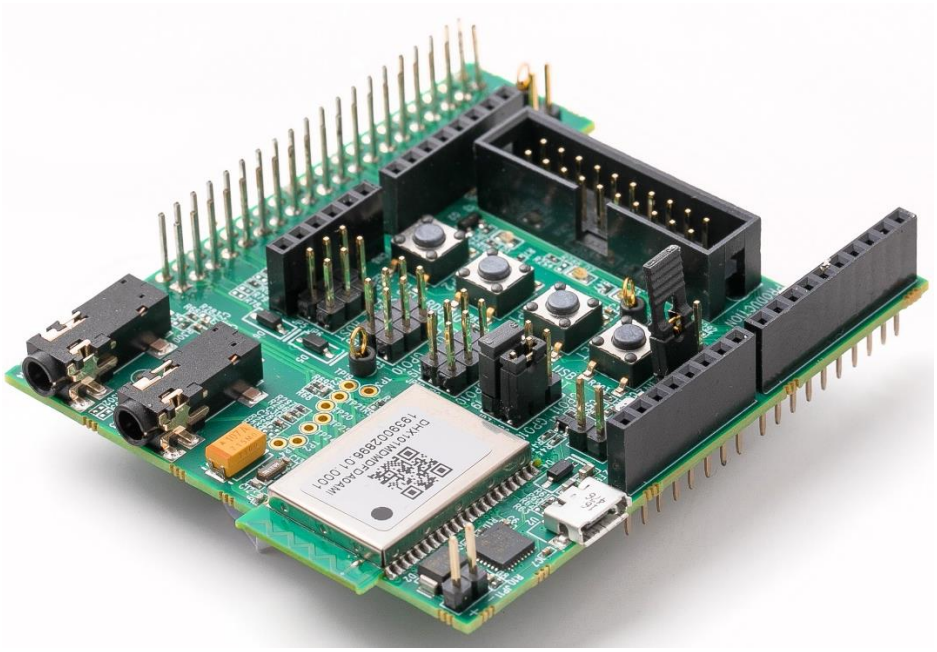
DHAN-T-DEV Data Brief

Platform Description

The DHAN-T-DEV incorporates a DHAN-T module loaded with DECT-ULE Device (Portable Part) communication stack as well as a thin application layer demonstrating a variety of IoT sensors and Voice capable units. This platform serves as a development tool for customizing the host application SW for a ULE Device – in particular, battery powered devices with long lifetime requirement. ULE Device developers can write their application SW on an external MCU and interface with the CMND communication stack loaded in the DHAN-T. Communication with the Host MCU is either via UART (control, data) and TDM/I2S (audio) or via USB (control, data and audio). Alternatively, developers can incorporate their application host directly on top of the DHAN-T communication stack.



Application Development Support

This platform supports development of application SW for DECT-ULE Devices incorporating the following:

- Very low-power sensors reporting to the Hub Host events/conditions such as Open/Close (of door, window), hazardous smoke or gas condition, motion, moisture, temperature, collisions etc….
- LEDs, Buzzers or Media Players that can be actuated by the Hub Host to provide a visual or audio indication of a system condition or alarm. In particular, battery powered applications
- Voice Annunciators that can provide specific instructions or warnings delivered by the Hub Host
- Voice “Boxes” that enable the User to carry on a conversation with a remote party (eg Hub is embedded in a GW with VOIP or LTE access to a mobile)
- Displays which require frequent updates via data streams from the Hub

Application reference code is available from DSP Group for all these applications. These reference packages include code for registration (=pairing), sending and receiving ULE messages, over-the-air upgrade and more.

Features

*Operates in the 1.9GHz frequency band, which is allocated by regulatory bodies (FCC Part15.239, ETSI EN300175, ARIB STD T101) for exclusive use by DECT-ULE protocol compliant devices. The DHAN-T has FCC, IC and CE regulatory approval

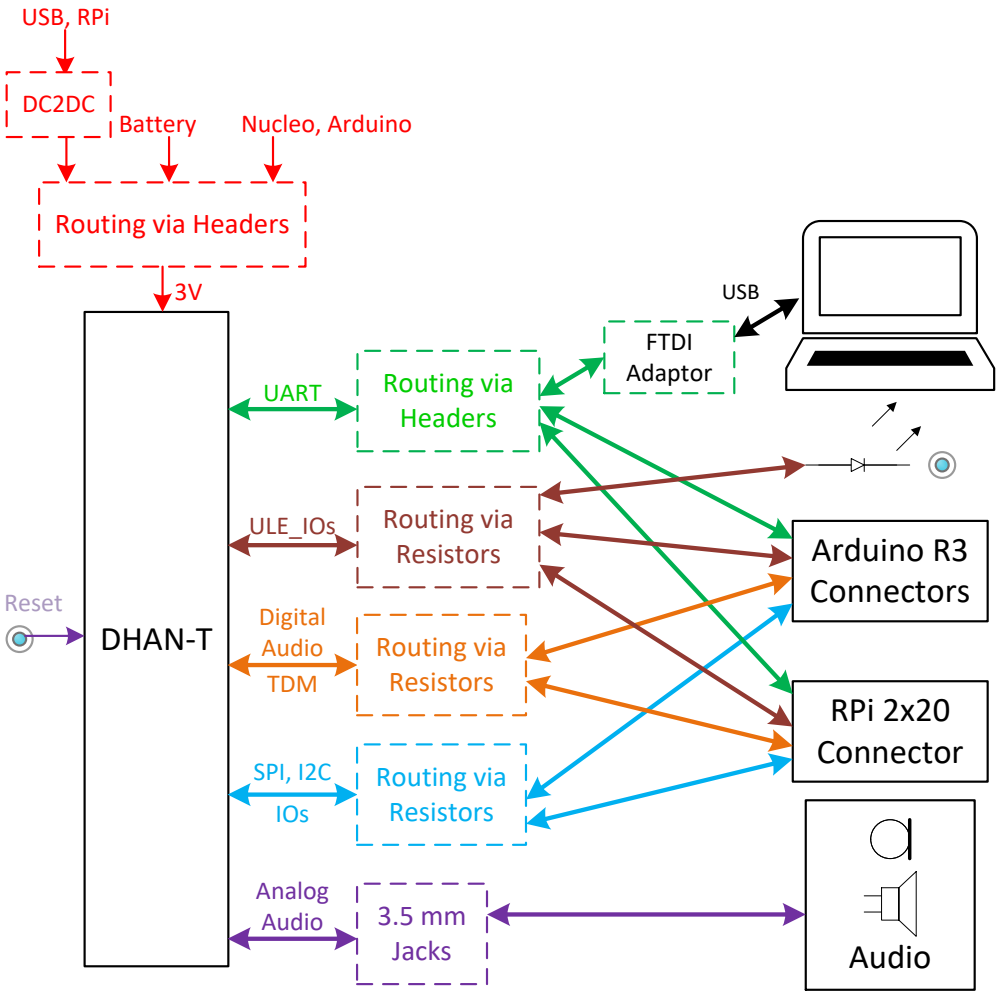
*Includes DHAN-T SMT radio module with on-board antenna

*Easily configurable (with headers) for power supplied by the PC USB port (there is a DC2DC with 3V output), an external 3V Power Supply or powered from the 3.3V pin at CN6 on the Arduino interface

*Configurable routing (resistor jumpers) of the DHAN-T UART for communication with application/configuration SW (CMND API Simulator) running on a Windows PC or with an application running on an external MCU

*Firmware on the DHAN-T can be upgraded either via JTAG, UART or over the air (SUOTA) from a ULE Hub

DHAN-T-DEV Block Diagram



Related Documents

*DHAN-T-DEV User Manual

Ordering Information

Part # is HOMEA-DHX91X-DPDT.BRD

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