DHAN-M Expansion Board Data Brief

Platform Description

The DHAN-M Expansion Board incorporates a DHAN-M module loaded with either a DECT-ULE Hub (Fixed Part or Base) communication SW stack or a DECT-ULE Device (Portable Part) stack. This platform serves as a development tool for creating application SW running on an external Host MCU. Communication with the Host MCU is either via UART (control, data) and TDM/I2S (audio) or via USB (control, data and audio).

The form-factor and 40-pin connector are best-suited for mounting on a Raspberry Pi 3, however, the Host MCU can be any Linux or non-Linux processor.

Application Development Support

This platform supports development of the following applications:

- A DECT-ULE Hub serving a mix of IoT sensors and actuators, voice prompt annunciators and full 2-way voice capable devices. Local speakerphone and limited image transfer are also supported
- DECT-ULE Devices that are powered by AC or rechargeable batteries. Devices can incorporate IoT sensors, actuators, voice prompt annunciators, speakerphones and cameras

Application reference code is available from DSP Group for both these applications. These reference packages include code for registration (=pairing), sending and receiving ULE messages, FW upgrade and more. There are separate packages for Hub and Device, Linux MCUs and simpler MCUs.

Features

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

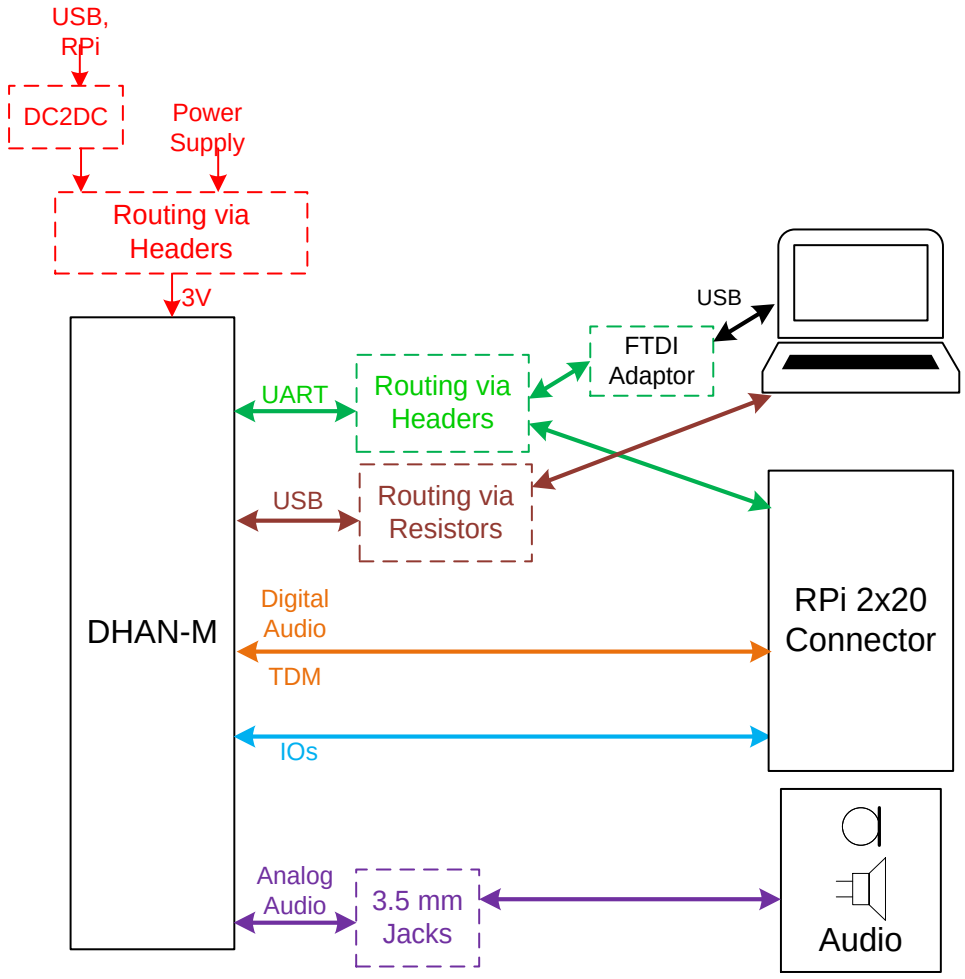
*Includes DHAN-M SMT radio module with on-board antenna and SMA connector for optional diversity antenna

*Configurable (jumpers) for power supplied via either USB (or other 5V source) or a 3V Power Supply

*Interfaces with the Host MCU either via USB (for control and audio) or via UART (for control) and TDM (for audio)

*Alternatively, the EB can be connected via USB to a Window's laptop running the DSPG Application Reference SW

DHAN-M Expansion Board (EB) Block Diagram



DHAN-M EB Part Number

HOMEA-DHX913-EXTDHNM-D.BRD

(Note: Order form should include a note as to whether the EB should be delivered with a Hub stack or a Device stack, UART interface or USB interface)

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