3.4. Transmitter

Table 4. Tx Characteristics

Characteristics	Test Conditions	Min	Typ	Max	Unit
NTP	VccRF=3 V VCC=3 V Band=EU	21.5	23	24	dBm
NTP	VccRF=3 V VCC=3 V Band=US	19	20	21	dBm
Harmonics	VccRF=3 V VCC=3 V Band=EU & US		-40	-35	dBm
Transmission Mask	EN 301406 Paragraph 5.3.3		Comply		N/A
Frequency Offset	EN 301406 Paragraph 5.3.1	-50	8	+50	KHz
Frequency Drift	EN 301406 Paragraph 5.3.5	-15	0	+15	KHz/Slot
Emission Due Modulation	EN 301406 Paragraph 5.3.6.2 M±1 M±2 M±3 M>±3		 -20 -42 -47 -50	 -8 -30 -40 -44	dBm

3.5. Receiver

Table 5. Rx Characteristics

Characteristics	Test Conditions	Min	Typ	Max	Unit
Sensitivity, BER < 1000ppm	VccRF=3 V VCC=3 V		-96	-93	dBm
Maximum input power	VccRF=3 V VCC=3 V			15	dBm

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4. Protocol Stacks

The module is configured for the role of a DECT-ULE Hub (=Base Station) with control via the 2-pin UART interface according to the CMBS API. This API supports both traditional telephony functionality (per the CAT-IQ standard) as well as ULE HAN-FUN functionality. Concurrent audio paths are supported at the TDM (IOM) interface running between the Host Processor and the DHAN-M. The "division of labor" and interface between the Host Application and the standard CMBS protocol stack is depicted in Figure 3.

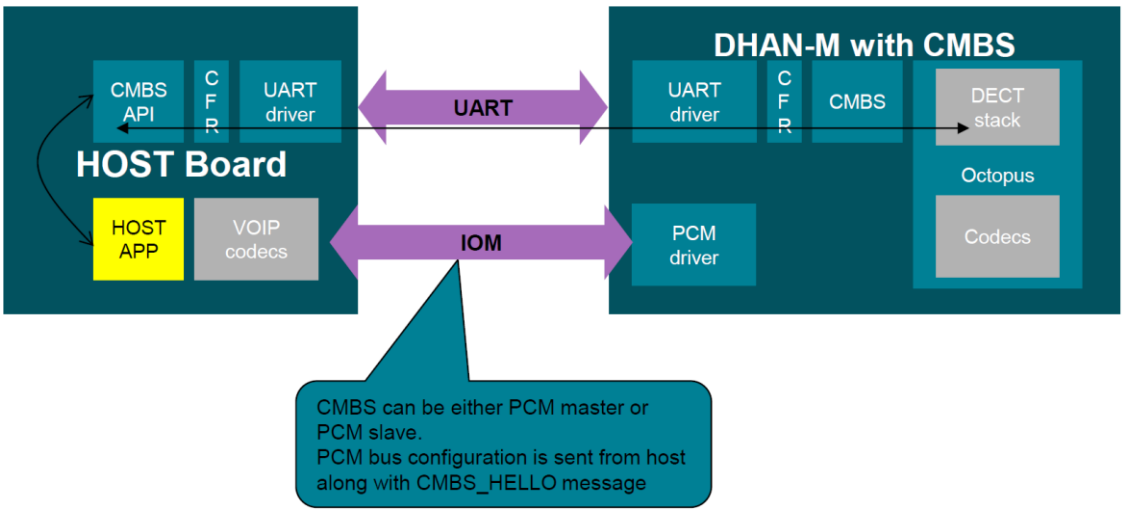

Figure 3. Host and Standard CMBS Protocol Stack

Alternatively, the customer can request to download an image which uses the USB interface for both control and audio, as depicted in Figure 4.

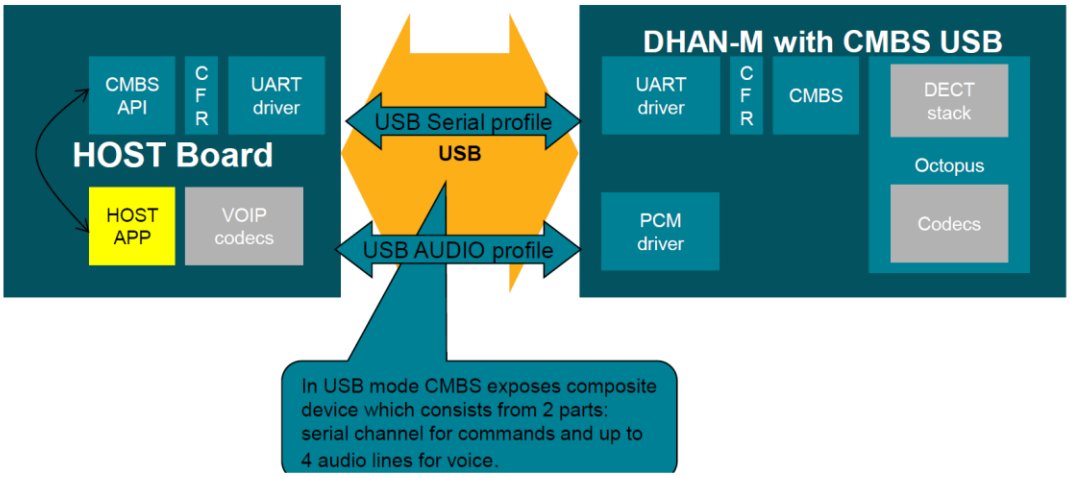

Figure 4. USB Interface for Control and Audio

Similarly, customers wanting to implement a high-end DECT-ULE device (=end point or PP), can request a CMHS image, with either UART or USB interface options. Reference schematics for both USB and UART options are supplied in the following section.

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5. Reference Schematics

Important: The 3.3V regulator should be capable of regulating the output with the module drawing 450 mA for 500 µS during the Tx burst!

5.1. Interface to Host Processor via UART and 3.3V Logic

5.1.1. Host to DHAN-M Interface

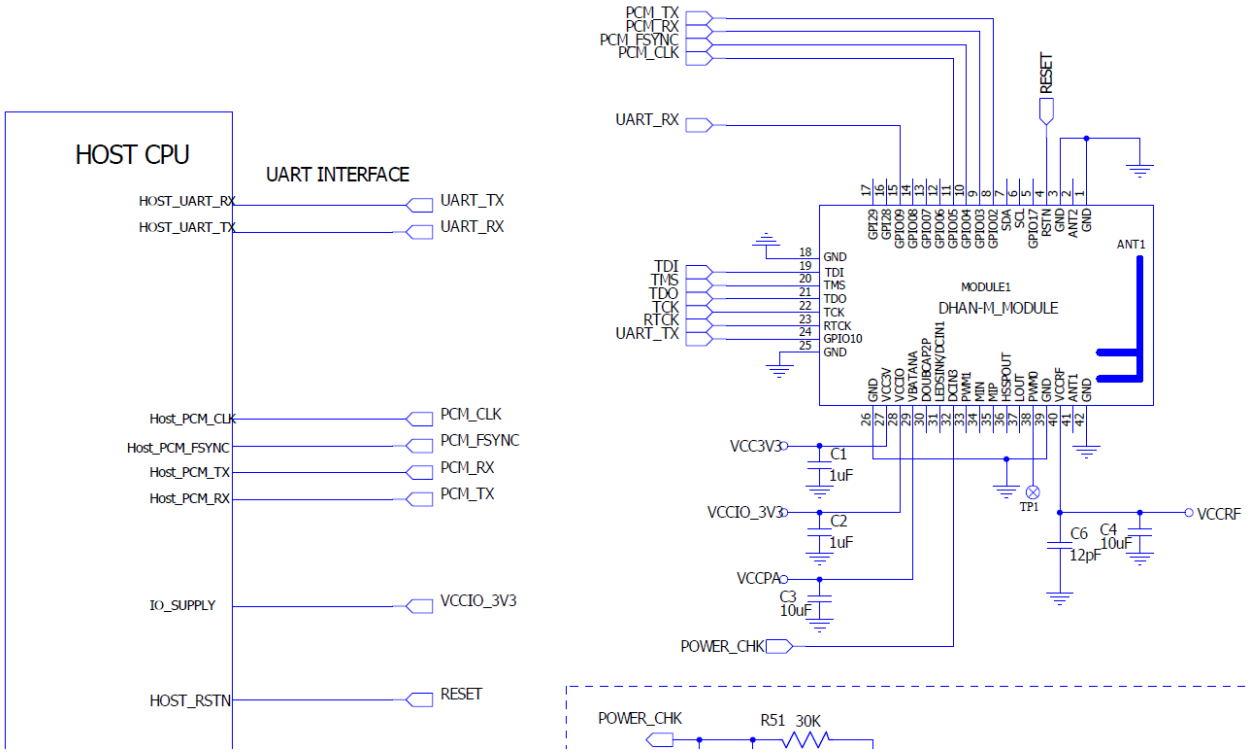

Figure 5. Host to DHAN-M Interface via UART and 3.3 V Logic

5.1.2. Power Supply and Optional JTAG

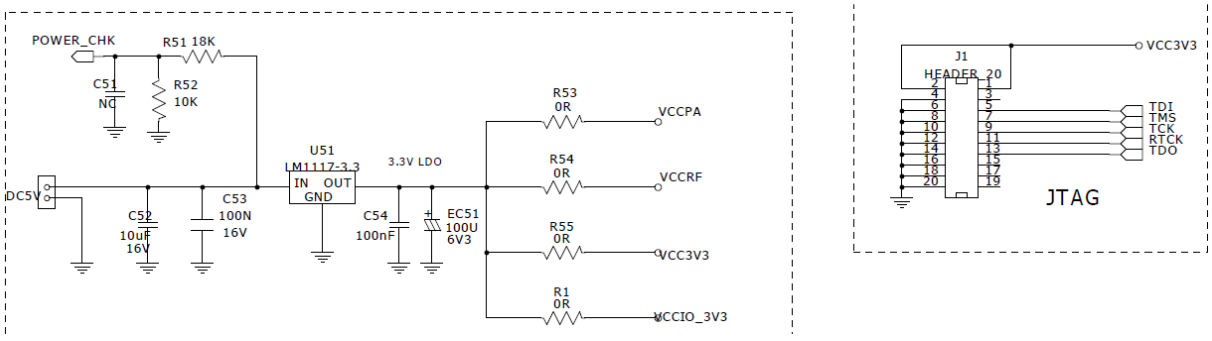

Figure 6. Power Supply and optional JTAG

Note: The PCM (=TDM = I²S) Interface is required only in applications where audio must be exchanged between the DHAN-M and the Host Processor.

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