



Summit Wireless Discovery Module

Entry Level Wireless Audio Transceiver

HARDWARE PRODUCT BRIEF

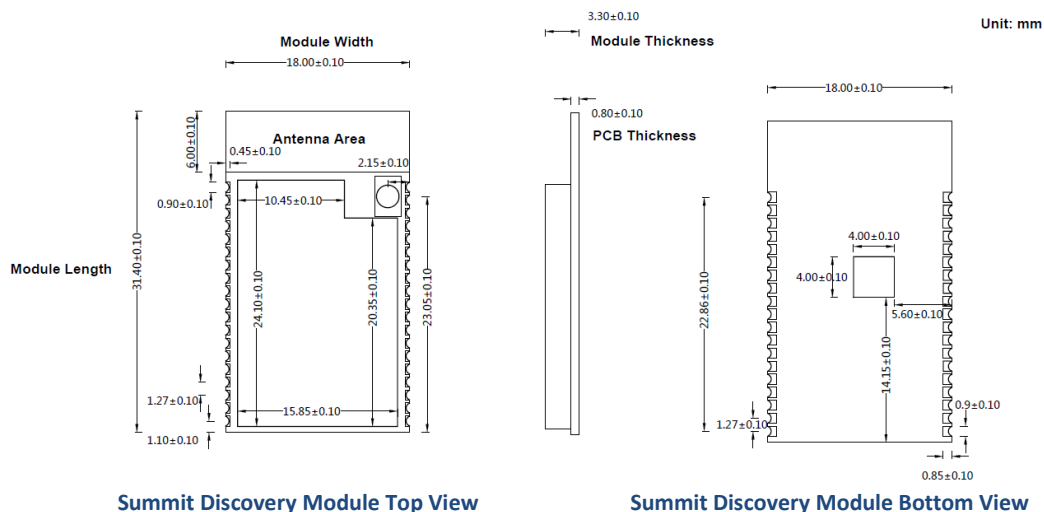
Superior Wireless Sound Made Simple

Summit Wireless® Discovery module has been developed specifically for low cost entry level Home Theater applications. The module can support up to 4 separate wireless audio channels, ideal for smart speaker expansion to 2.1, or stereo to 3.1 home theater configurations including soundbar wireless surrounds and subwoofer applications. This product improves the consumer's experience by delivering innovative features and capabilities in seven key areas:

- **Robust Wireless Network:** The Summit technology is designed to work in congested networks by minimizing network traffic with one time transmission of audio packets.
- **High Quality Audio:** Uncompressed audio delivered at 48 kHz sample rate; a fixed source-to-speaker latency meeting video lip-sync requirements. Low Inter-channel delay between speakers insures a distortion free experience.
- **Ultra-Low Power Consumption:** IOT class module power rating for battery powered speaker applications.
- **Fixed Low Latency:** Meets the ITU specification for lip-sync acceptability ITU-R BT1359-1 and system delay requirements from audio Codec providers.
- **Easy Setup:** ConexUs™ button support for quick network setup and tear down. Eliminates the need for a complicated user interface.
- **RX Mode:** A single module in RX mode can output up to 2 audio channels.
- **Subwoofer Mode:** A single module can output an LFE channel as decoded. An LFE can also be generated from the left and right stereo pair creating a Pseudo Sub channel with a programmable crossover frequency from 60Hz – 160 Hz.
- **Secure Audio Transmission:** Network connection uses Wi-Fi AES 256 bit encryption

Summit Discovery Module Description

The Summit Discovery Module is a compact, production-ready transceiver module design. In transmit mode the module can transmit up to 4 independent 48kHz PCM audio channels with low latency. In receive mode the module mates to the amplifier in active speakers and ensures tight speaker to speaker synchronization. The Summit transceiver will support a room size of 10 meters square while keeping speakers perfectly synchronized.

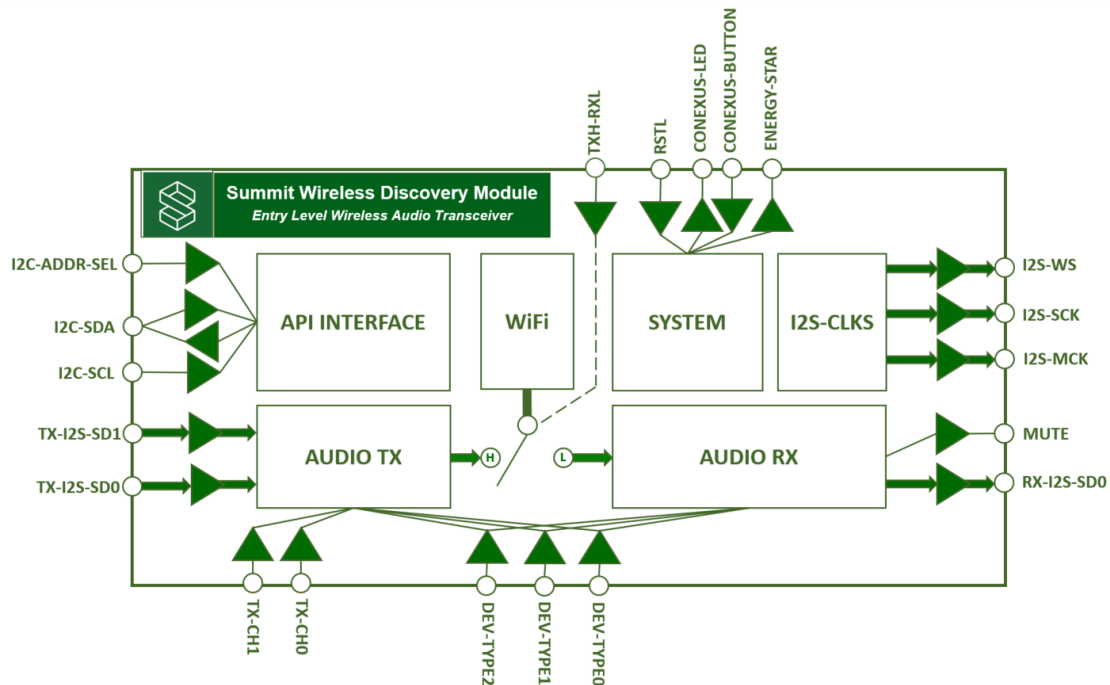




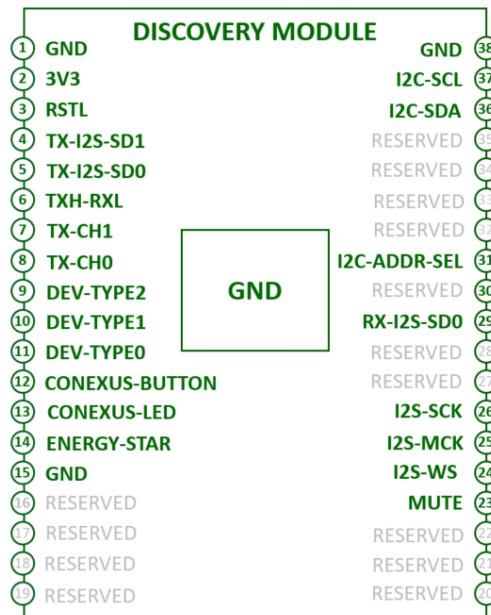
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Summit Discovery Module Block Diagram



Summit Discovery Module Pin-out Drawing



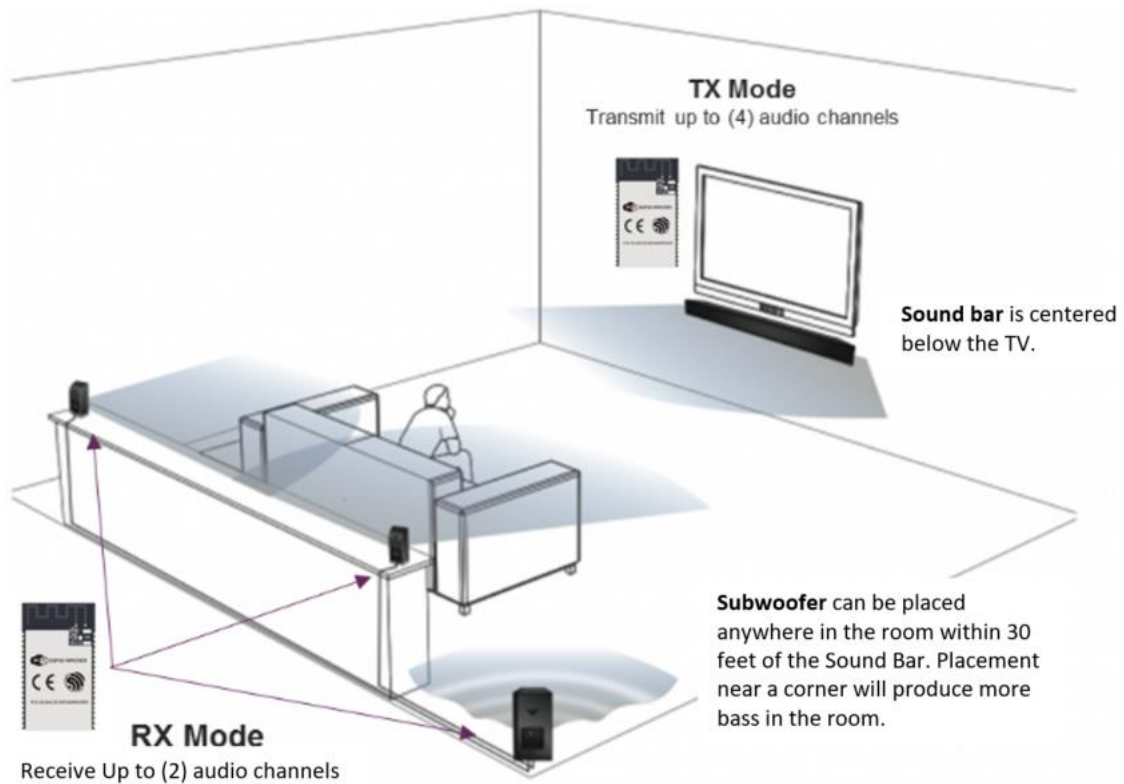
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Specifications

Parameter	Performance
Audio Sampling Rates	16 bit audio: 48 kHz audio sampling rate support
Power	3.3 VDC @ 250 mA (typical)
Latency (I2S source to RX output)	Fixed 40msec
Inter-channel Delay Error	Synchronized within 20µs (speaker-to-speaker timing skew steady state)
Frequency Band	2.4GHz; up to 3 non-overlapping channels
Certifications (Latest Information)	FCC Part 15c, EU, China, Japan, Korea, Wi-Fi Alliance (Wi-Fi CERTIFIED™ b, g, n, WPA™ Enterprise Personal, WPA2™ Enterprise Personal, WMM® Wi-Fi Protected Setup™), CE
Temperature Operating Range	-40 °C ~ 85 °C

Discovery Module Soundbar Use Case:



Ordering Information

SKU	Description
444-2277	Summit entry level transceiver module "Discovery"



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