Summit SWM908SD TX Module

Single Antenna – Standard Distance

HARDWARE PRODUCT BRIEF

Superior Sound Made Simple

Summit Wireless® Standard Distance Technology is a robust wireless audio solution that is optimized for home theater audio applications. This product improves the home theater experience by delivering innovative features and capabilities in four key areas:

- **Robust Wireless Network**: Use of the uncongested U-NII band radio spectrum provides vastly superior performance and noise immunity compared to solutions using 2.4/5.8 GHz spectrums
- **High Quality Audio**: 8-channel, 24-bit uncompressed audio, delivered at 44.1, 48, and 96 kHz sample rates; A fixed source-to-speaker latency of 5.2 ms at 48 kHz and 2.6 ms at 96 kHz audio sample rates; Inter-channel delay between speakers of ±1 µs
- **Easy Setup**: Simplified home theater audio sweet-spot programming (MyZone™) enables home theater setup in less than 30 minutes in most cases
- **Independent I2C Control Bus:** Low bandwidth wireless I^2C control bus between TX and RX modules; Maximum 30 kbps for monitoring speaker statistics, data updates, and feedback control features
- **Interoperability**: Summit Wireless Technology fully supports the Wireless Speaker and Audio (WiSA™) Association's interoperability specification; Consumers purchasing speakers bearing the WiSA logo can be assured that the speakers have been certified to the WiSA specification and will work flawlessly with WiSA-certified audio transmitters

Summit Standard Distance TX Module Description

The Summit Standard Distance Transmit Module integrates a single antenna is designed for applications such as Soundbars, Televisions, and Audio Hubs, with non-metal enclosures, where external antennas are not desired due to cost, size or style limitations. The *Single Antenna* module employs an RF combiner to provide access to the antenna for both the working and monitor radios, resulting in a module size approximately 30% smaller than the previous two antenna module.

Features

- USB Audio 2.0 compatible interface for streaming and control or I2C control
- 24 RF channels, 5-5.8 GHz operation
- 7.1 channel, 24-bit, uncompressed audio transmission at up to 96 kHz sample rates
- 5.2 ms fixed audio latency source to speaker at 48 kHz sample rate (2.6 ms at 96 kHz)
- Single integrated antenna
- Pre-certified module – FCC part 15, DFS, WiSA
- Support for Soundbar, TV, and AVR applications

Interface

The Summit Standard Distance Transmitter is designed to connect directly to the main host application board through a 2x20, 100 mil standard header. Digital audio is input via an I^2S data interface. The board is powered by 1.2 VDC and 3.3 VDC, sourced from the host application board. Control of the Summit Transmit Module is accomplished through an I^2C interface. Summit firmware updates are supported via the UART and I2C interfaces.

Summit SD TX Module Top View

Summit SD TX Module Bottom View

Summit SWM908SD TX Module

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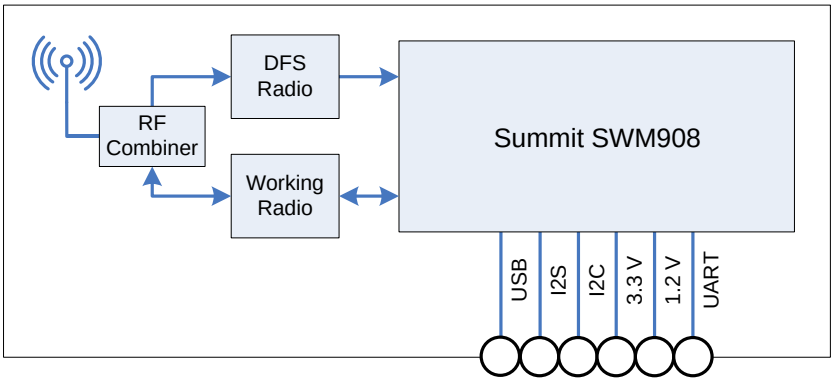
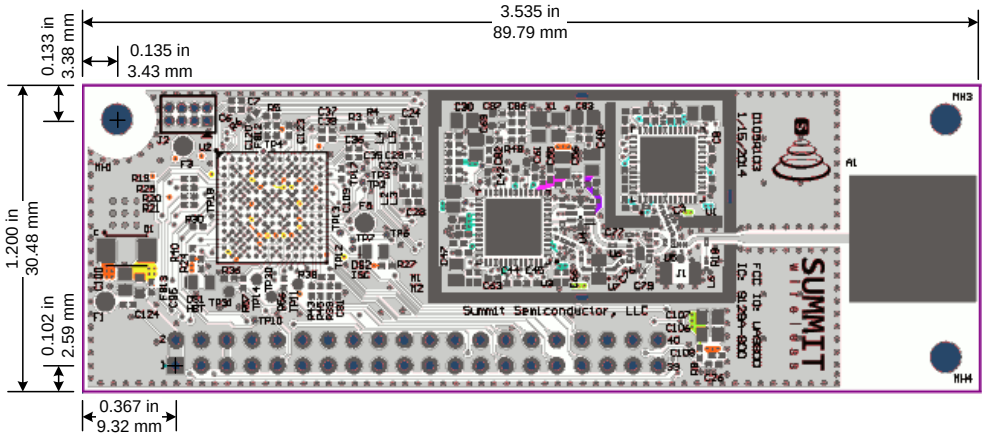


Summit SWM908SD TX Module Block Diagram



Summit SWM908SD TX Module Dimensions

Specifications

PARAMETER	PERFORMANCE
Audio Sampling Rates	24-bit audio: 44.1 kHz, 48 kHz, and 96 kHz audio rates supported
Latency *(I2S source to RX output)*	Fixed 5.2 ms @ 48kHz sample rate, 2.6 ms @ 96 kHz sample rate
Inter-channel Delay Error	±1 µs (Speaker-to-speaker timing skew)
Frequency Band	U-NII 5.1 – 5.8 GHZ, 24 non-overlapping channels (*varies by country)*, DFS support
Power Consumption	2.0 Watts typical; 3.3 VDC ± 5%, 500 mA (typical); 1.2 VDC ± 5%, 165 mA (typical)
Transmit Distance	Designed for use in 9 x 9 m (30’ x 30’) rooms
Certifications	FCC Part 15 & DFS for US/Canada, EU, Japan, Korea, Australia/New Zealand; WiSA

Ordering Information

SKU	DESCRIPTION
444-2251	Summit SWM908SD TX Module with Single Antenna – Standard Distance

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