Anaren Integrated Radio

A8520 PurePath™

A8520E24A91

The A8520E24A91 is a high-performance, FCC & IC certified and ETSI-compliant* radio module that incorporates the Texas Instruments CC8520 PurePath wireless audio SoC, CC2591 Range Extender, and integral antenna all in the industry's smallest package 11 x 19 x 2.5mm.

Features

- Operates in the 2.4GHz ISM band
- FCC, IC and ETSI compliant*, shielded package
- Un-Compressed Wireless Audio Connectivity
- Pre-defined protocol
- PC-based configurable human interface
- Autonomous or host mode operation
- Integral Antenna
- Integral Range Extender
- 87dBm Sensitivity
- 20dBm Output Power
- Exceptional range:
  (>150M line-of-sight // typical 30m indoor)
- Co-existence with WiFi and Bluetooth systems
- 78mA Master current consumption
- 36mA Slave current consumption
- Available in tape & reel and matrix tray

** See User's Manual for important information about versions that comply to the ETSI standards*

Benefits

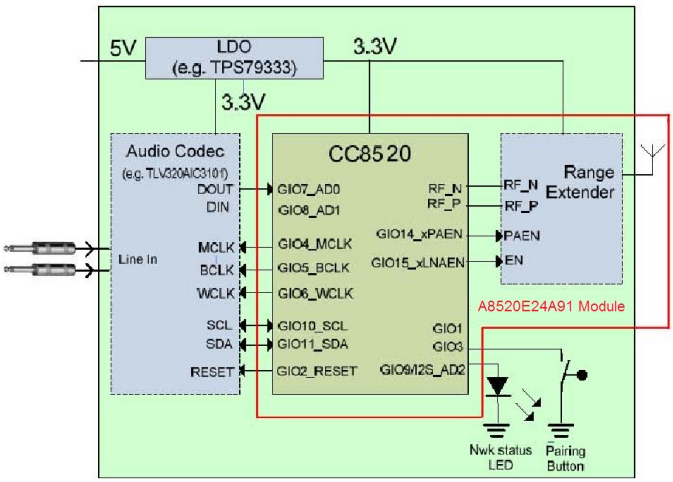
- Minimal RF engineering experience necessary
- No additional "Intentional Radiator" certification required (FCC CFR 47 Part 15, IC RSS-210)
- Operating temperature –40 to +85C
- 100% RF Tested in production
- No protocol experience required
- Easily implemented on a two lay**er** PCB

Applications

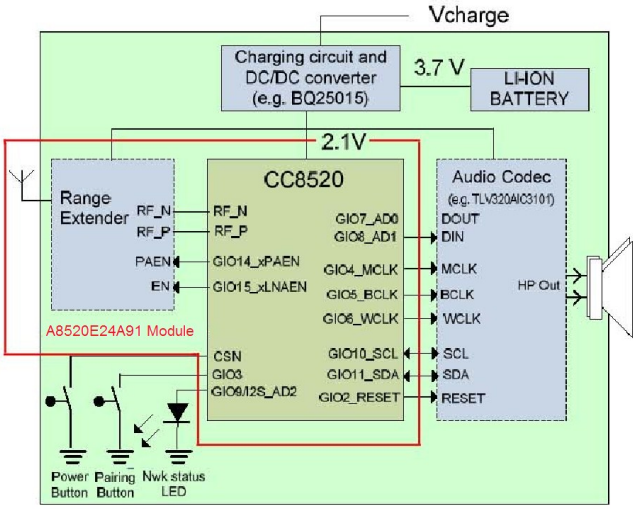
Consumer Audio, Professional Audio
Portable Audio, Digital Radio

PLEASE NOTE: Additional information on the Texas Instruments CC8520 and CC2591 devices can be found in the company's latest datasheet releases at http://www.ti.com. PurePath™ is a trademark of Texas Instruments

Application Block Diagram



MASTER



SLAVE

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Product overview

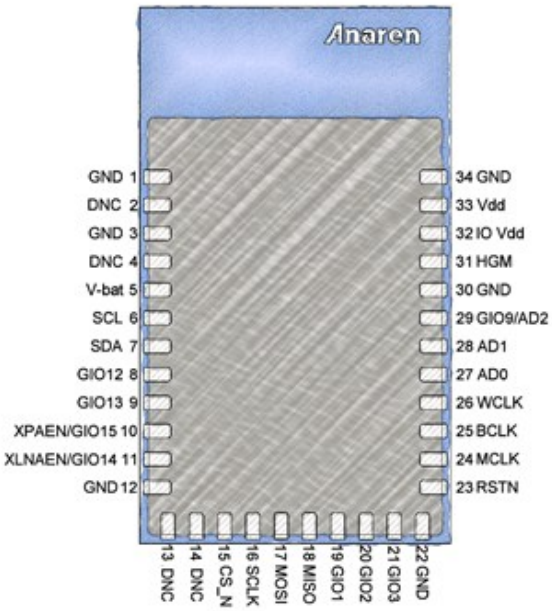
The A8520E24A91 is a high-performance, FCC & IC certified and ETSI compliant audio module based on the Texas Instruments CC8520 transceiver and CC2591 range extender in the industry's smallest package (11 x 19 x 2.5 mm).

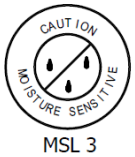
The module incorporates the required RF matching & filtering, crystal, integral antenna, and digital line filtering for good noise reduction and sensitivity. The result is quick low power wireless connectivity without having to deal with extensive protocol, RF, antenna design and regulatory compliance; thereby providing quick time to market. The modules are 100% tested in production to ensure consistent performance.

The A8520E24A91 has an RoHS-compliant ENIG finish and is packaged on tape & reel or in matrix tray for high-volume automated manufacturing.

Pin diagram

DNC = Do Not Connect





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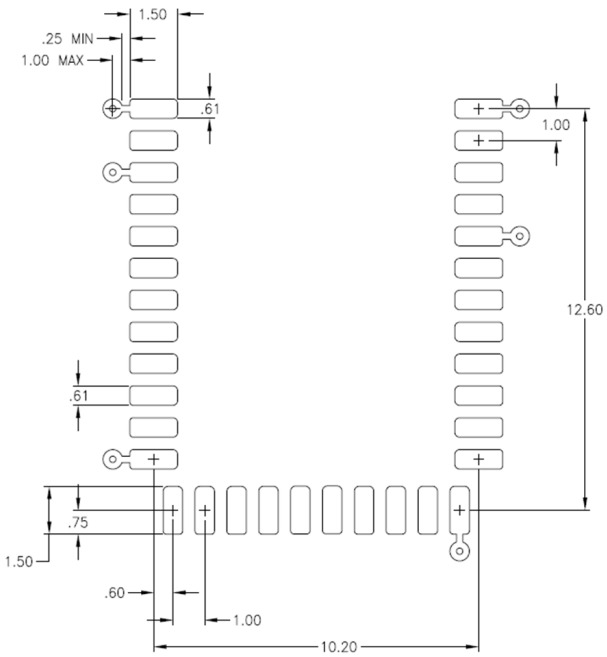
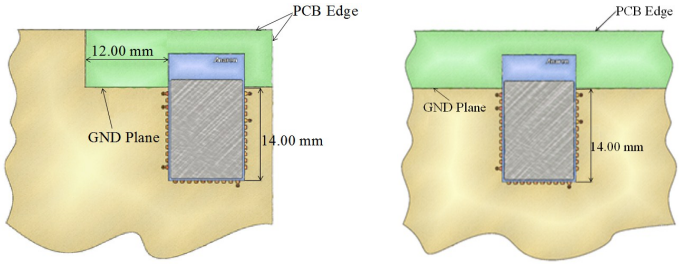
Caution! ESD sensitive device. Precautions should be used when handling the device in order to prevent permanent damage.

Footprint



Ground Plane Control



Nomenclature

A8520E24A91GR

1 2 3 4 5 6 7

A		(Anaren)
1	Chip series	(C1101, CC110L, CC2500, CC8520)
2	Function	(R = radio only, E = Range Extender)
3	Frequency band	(x 100MHz)
4	Form factor	(A = Internal Antenna, C = Connector)
5	Design ID	(CC2591)
6	Application	(G = General)
7	Packaging	(R = Reel, M = Matrix Tray)

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