



Anaren Integrated Radio 8520 PurePath™ Series



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The A8520E24A9X is a high-performance, *FCC-certified radio module that incorporates the Texas Instruments CC8520 PurePath wireless audio SOC, 259X Range Extender, and integral antenna all in the industry's smallest package 11 x 19 x 2.5mm.

Features

- Un-Compressed Wireless Audio Connectivity
- Pre-defined protocol
- Configurable human interface
- Operates in the world wide 2.4GHz ISM band
- FCC/IC compliant, shielded package
- Autonomous or hosted mode
- Integral Antenna
- Integrated CC2591 Range Extender for long range applications (A8520E24A91)
- ETSI coming soon (Q2 2011)
- 87dBm Sensitivity
- 16dBm Output Power
- >150m LOS range
- Range through multiple walls (typ. 30m indoor)
- Co-existence with WIFI and Bluetooth
- 48mA Master current consumption

Benefits

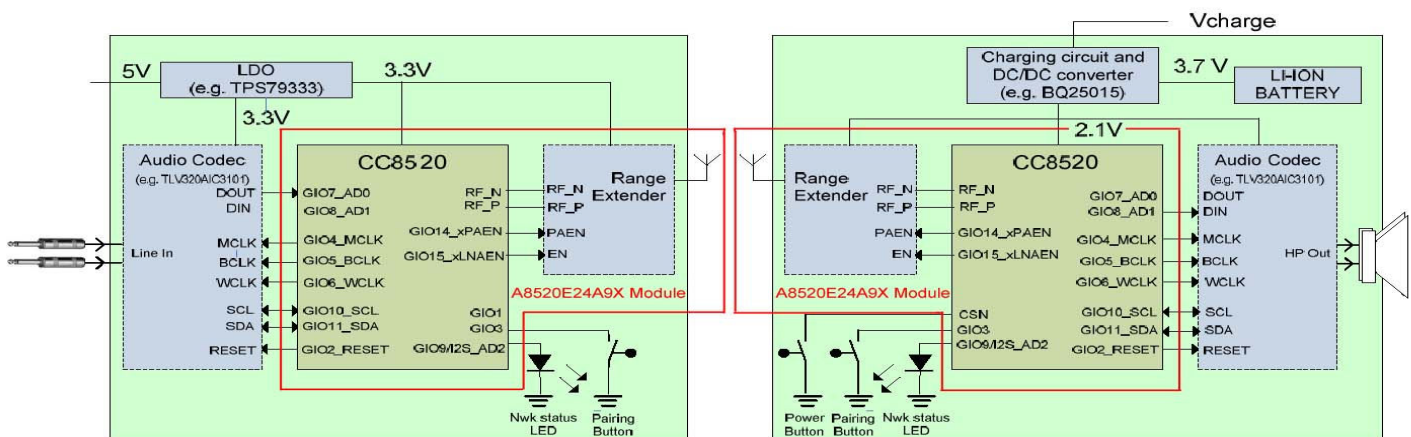
- Operating temperature -20 to +85C
- 100% RF Tested in production for repeatable performance
- Common footprint for US and European needs
- No RF engineering experience necessary
- No protocol experience necessary
- Only requires a 2 layer Host PCB implementation
- FCC & IC certified
- No regulatory "Intentional radiator" testing required to integrate module into end product. Simple certification labeling replaces testing.

Applications

Consumer Audio, Professional Audio
Portable Audio, Digital Radio

Application Block Diagram

PLEASE NOTE: Additional information on the Texas Instruments CC8520 device can be found in the company's latest datasheet release at <http://www.ti.com>



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What'll we think of next?®

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Anaren Integrated Radio

Product overview

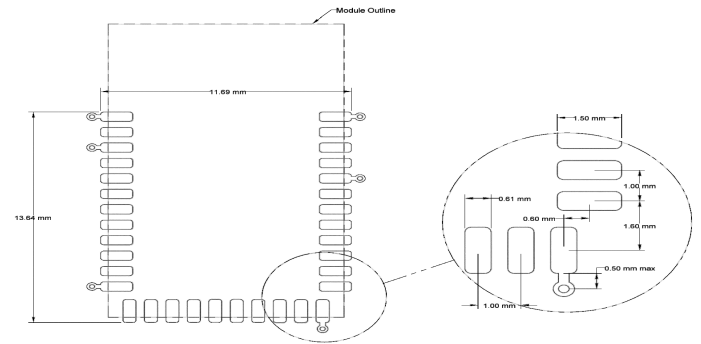
The A8520E24A91 is a high-performance, FCC/IC-certified radio module that incorporates the Texas Instruments CC8520 transceiver chip and the CC2591 in the industry's smallest package (11 x 19 x 2mm).

The A8520E24A91 module is a surface mount module integrating a 8520 PurePath™ wireless audio transceiver with the CC2591 PA/LNA device, for increased range, and an integral antenna. The module incorporates a crystal, the required RF matching and filtering for FCC/IC compliance as well as filtering on all digital lines for good noise reduction and sensitivity. The modules operate in the global non-licensed 2.4GHz ISM/SRD frequency band. These radio modules are ideal for achieving low power wireless connectivity without having to deal with extensive Protocol, RF, antenna design and regulatory compliance, allowing quick time to market. The modules are 100% tested to provide consistent performance.

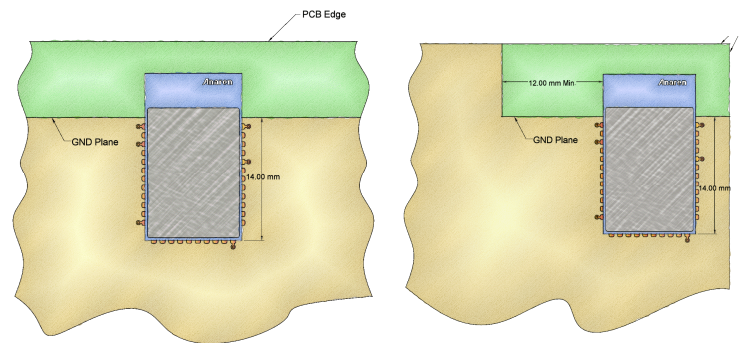
The A8520E24A91 has an RoHS-compliant ENIG finish and is packaged on tape and reel for high-volume automated manufacturing.

Note: PurePath™ is a trademark of Texas Instruments

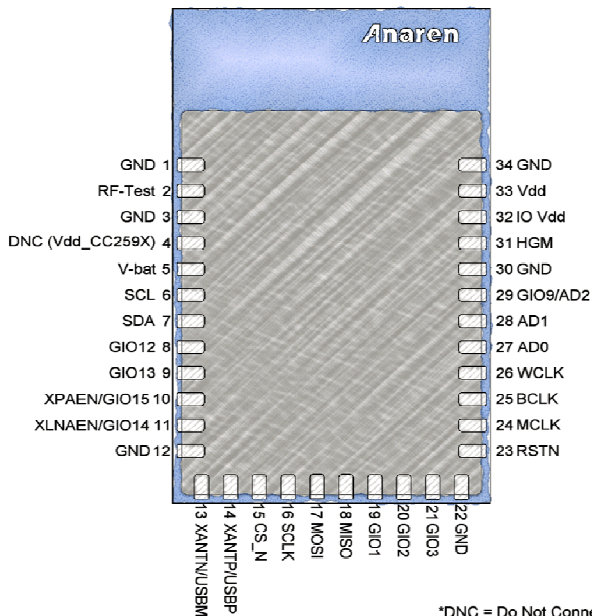
Footprint



Ground Plane Control



Pin diagram



Nomenclature

A8520E24A91GR

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|---|---|
| A | (Anaren) |
| 1 | Chip series (1101, 2500, 8520) |
| 2 | Function (R = radio only, E = Range Extender) |
| 3 | Frequency band (x 100MHz) |
| 4 | Form factor (A = Internal Antenna, C = Connector) |
| 5 | Design ID (90 for Europe, 91 for North America) |
| 6 | Application (G = General) |
| 7 | Packaging (R = Reel, M = Matrix Tray) |



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

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