







# Anaren Integrated Radio

# A8520 PurePath™



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

#### Benefits

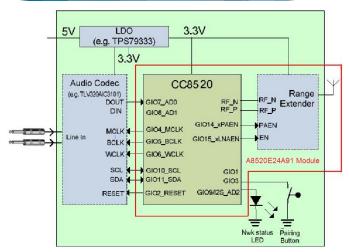
- Minimal RF engineering experience necessary
- No additional "Intentional Radiator" certification required (FCC CFR 47 Part 15, IC RSS-210)
- Operating temperature –40 to +85C
- 100% RF Tested in production
- No protocol experience required
- Easily implemented on a two layer PCB

#### **Applications**

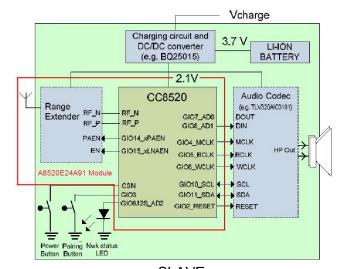
Consumer Audio, Professional Audio Portable Audio, Digital Radio

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





<sup>\*</sup> See User's Manual for important information about versions that comply to the ETSI standards







# Anaren Integrated Radio

#### **Product overview**

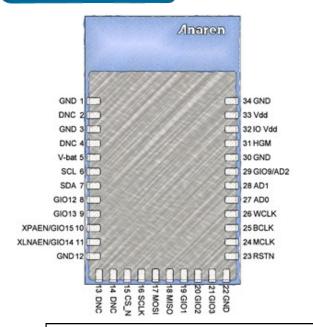
The A8520E24A91 is a high-performance, FCC & IC certified and ETSI compliant audio module based on the Texas Instruments CC8520 transceiver and CC2591 range extender in the industry's smallest package (11 x 19 x 2.5 mm).

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

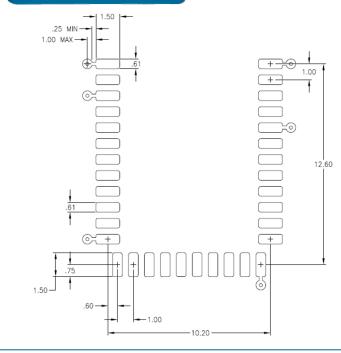




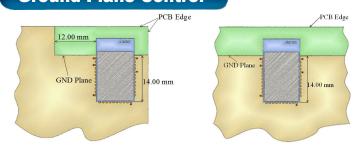


Caution! ESD sensitive device. Precautions should be used when handling the device in order to prevent permanent damage.

#### **Footprint**



#### **Ground Plane Control**



#### **Nomenclature**

# A8520E24A91GR

- A 1 Chip series
- 2 Function
- 3 Frequency band
- 4 Form factor
- 5 Design ID
- 6 Application
- 7 Packaging

(Anaren)

(C1101, CC110L, CC2500, CC8520)

(R = radio only, E = Range Extender)

(x 100MHz)

(A = Internal Antenna, C = Connector)

(CC2591)

(G = General)

(R = Reel, M = Matrix Tray)







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