



S I L I C O N   L A B S

**Introducing the Si473x AM/FM  
Receiver Family**

January, 2007

# Silicon Laboratories Broadcast Portfolio

- ◆ AM/FM Radio Receivers and FM Transmitters

- High-performance broadcast radio components



- ◆ Satellite Receivers

- RF front-end for direct broadcast satellite (DBS)



- ◆ XM Satellite Tuners

- Programmable satellite radio tuners



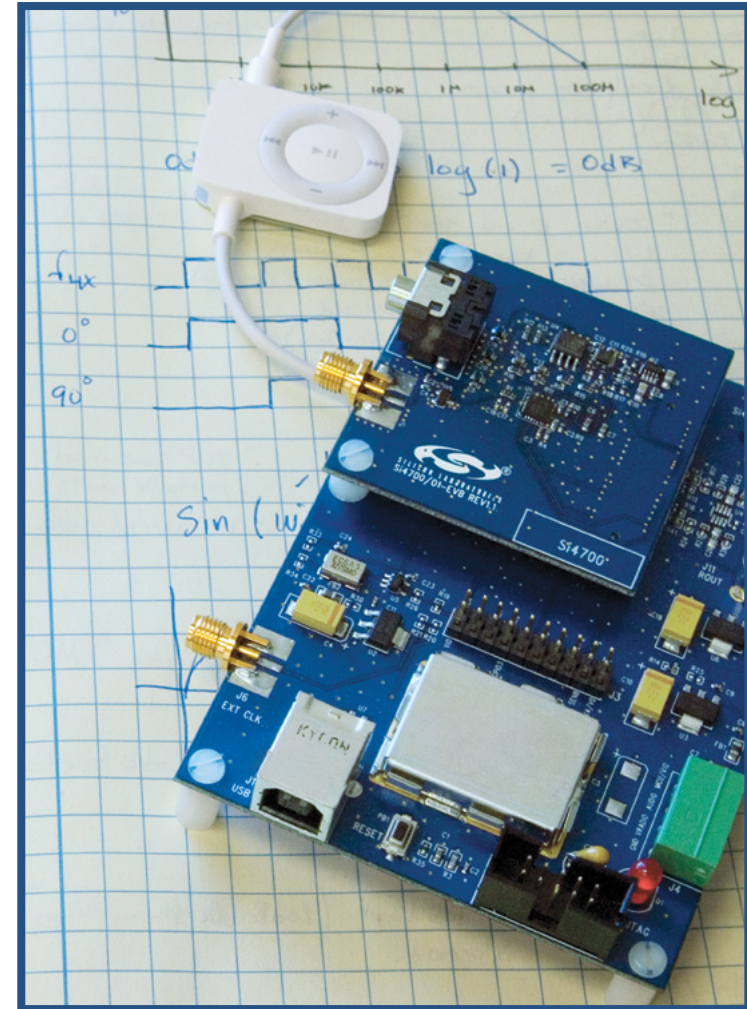
## Applications:

Handsets  
Portable Audio Devices  
Digital Satellite TV  
XM Satellite Radio



# Broadcast Core Competency

- ◆ Pioneered the development of high-performance RF in CMOS
- ◆ Use CMOS to enable architecture development that combines digital signal processing and RF in a single chip
- ◆ Results in unmatched integration, performance and lowest total cost of ownership



# AM/FM Radio Opportunities

The Available Broadcast Radio Market is Over 1 Billion Units

Traditional AM/FM opportunities:



Home Theatre



MP3 Docking Station



Clock Radio



Boom Box



Car Stereo

New AM/FM opportunities:



Portable Audio Devices



Mobile Handsets

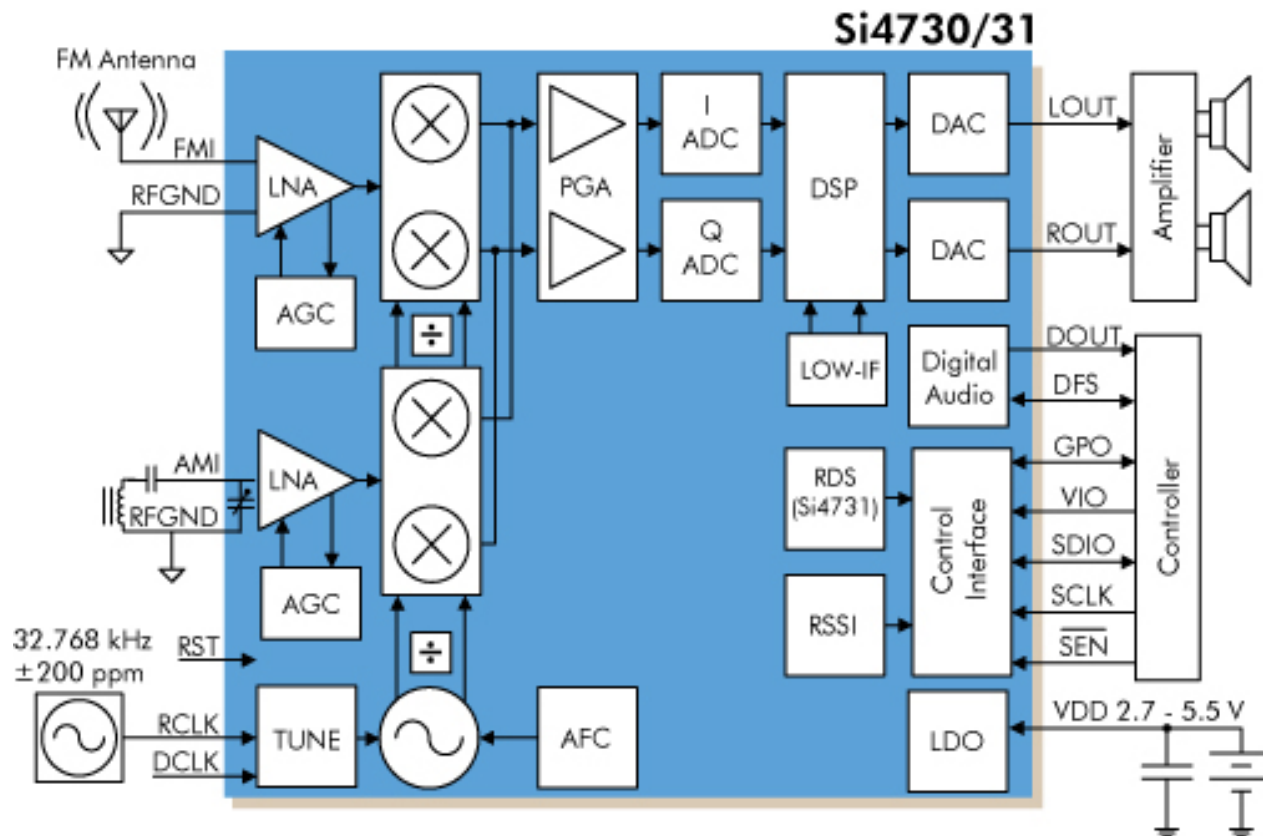


# Introducing the Si473x AM/FM Receiver

- ◆ Patented, proven digital architecture simplifies radio design
- ◆ Improved audio experience, features and adjustability
- ◆ Ultra-small, enabling technology for AM in portable devices
- ◆ World's first single chip AM/FM + RDS solution



# Si473x—Digital Architecture Advantages

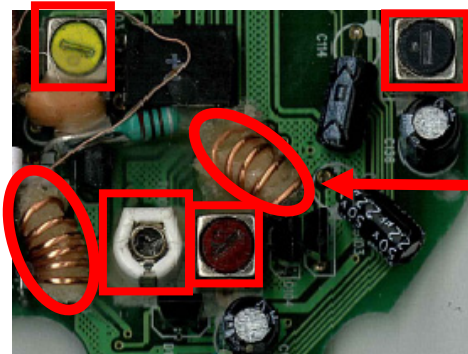


- ◆ Only fully integrated AM/FM radio receiver
- ◆ Disruptive technology with only two external components
- ◆ Enables integration of AM/FM radio into portable devices

# Si473x—No Factory Tuning Required

## Traditional Solutions

- ◆ Require hand tuned components to adjust for antenna variance
- ◆ Increases production time and manufacturing cost
- ◆ Higher fallout rate and variability



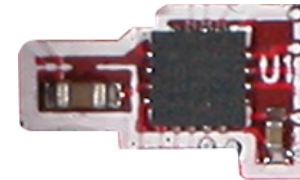
*Manually tuned  
Inductor*

*Hand spread  
and waxed*

**Traditional Solution**

## Silicon Laboratories Solution

- ◆ Eliminates factory alignment
- ◆ Low BOM count with standard production flow
- ◆ Highly accurate digital tuning



*No factory  
alignment*

**Silicon Labs  
Si4730**



# Si473x—Flexible Antenna Support

- ◆ The Si473x accepts a wide range of antennas
- ◆ High performance enables new miniature AM ferrite antennas for portable applications



FM headphone antenna



FM monopole antenna



FM stub antenna



AM loop antenna



Standard AM ferrite loop stick

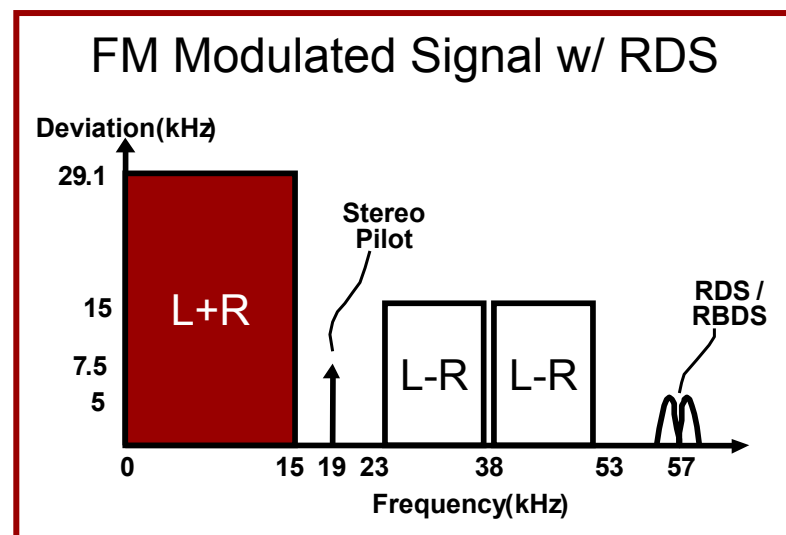
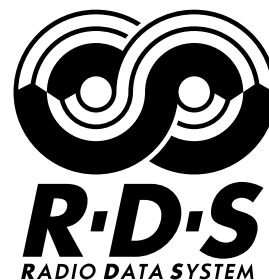


Miniature AM ferrite loop stick



# Si4731—First AM/FM + RDS IC Solution

- ◆ Si473x is the only solution in the world to support AM, FM and RDS in a single IC
  - The European Radio Data System (RDS) and the U.S. Radio Broadcast Data System (RBDS) displays artist, song title, and other information
- ◆ RDS market adoption increasing
  - AM/FM with RDS equals MP3 experience
  - Standard in car radios
- ◆ Silicon Laboratories RDS devices shipping worldwide



# Si473x—Summary

- ◆ Patented, proven digital architecture simplifies radio design and improves user experience
- ◆ Enabling technology for AM in portable devices
- ◆ Only AM/FM solution to offer RDS/RBDS support





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[www.silabs.com/broadcast](http://www.silabs.com/broadcast)