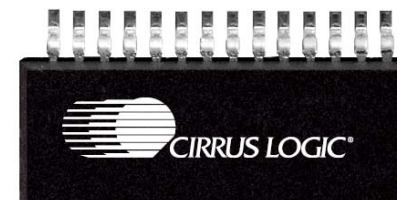


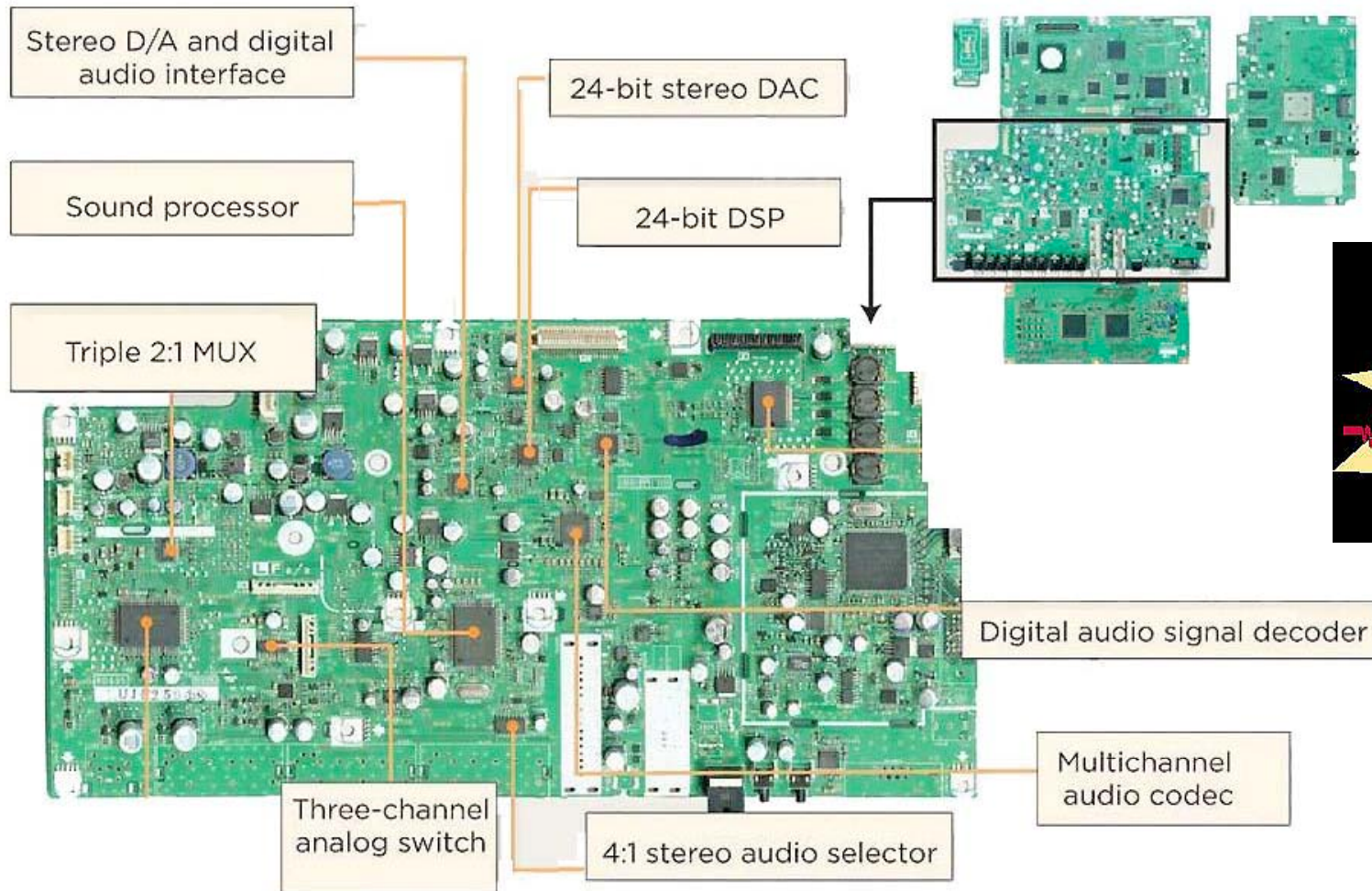
# Cirrus Audio Technology Audio SOC CS470xx



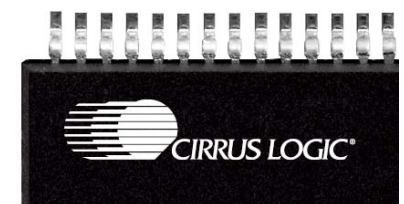
LEARN MORE AT  
[www.cirrus.com](http://www.cirrus.com)



# Audio circuit designs can be complex...



LEARN MORE AT  
[www.cirrus.com](http://www.cirrus.com)



# Or Simple... using the CS470xx ASoC

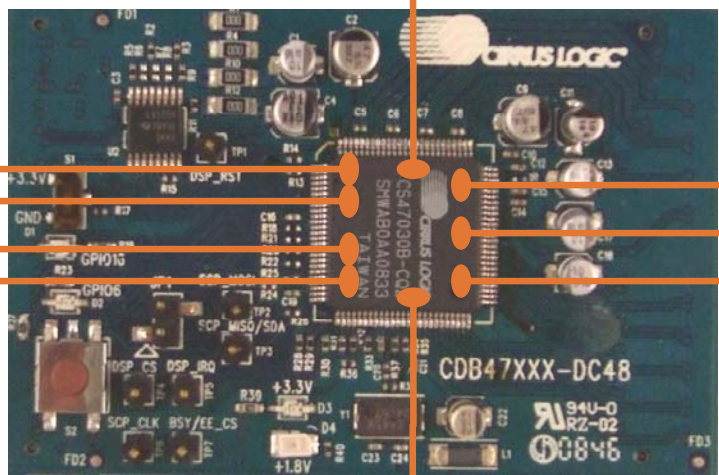
- DSP: 150 MHz, 32-bit
- High Performance
- PCM processing
- 300 MACs/Sec
- No external memory needed

- ADC: 4-Channels, 24-bit
- Differential or Single ended
- 105 dB Dynamic Range
- 98db THD+N

- 5:1 Stereo
- Analog MUX

- SPDIF Receiver

- I2S Input
- (8ch)



- DAC: 8-Channels, 24-bit
- Differential or Single ended
- 108 dB Dynamic Range
- 98db THD+N

- SPDIF Transmitter

- I2S Output
- (8ch)

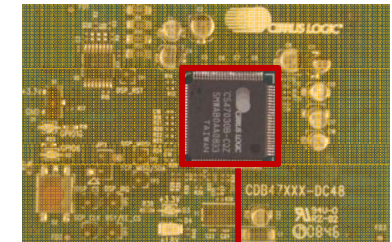
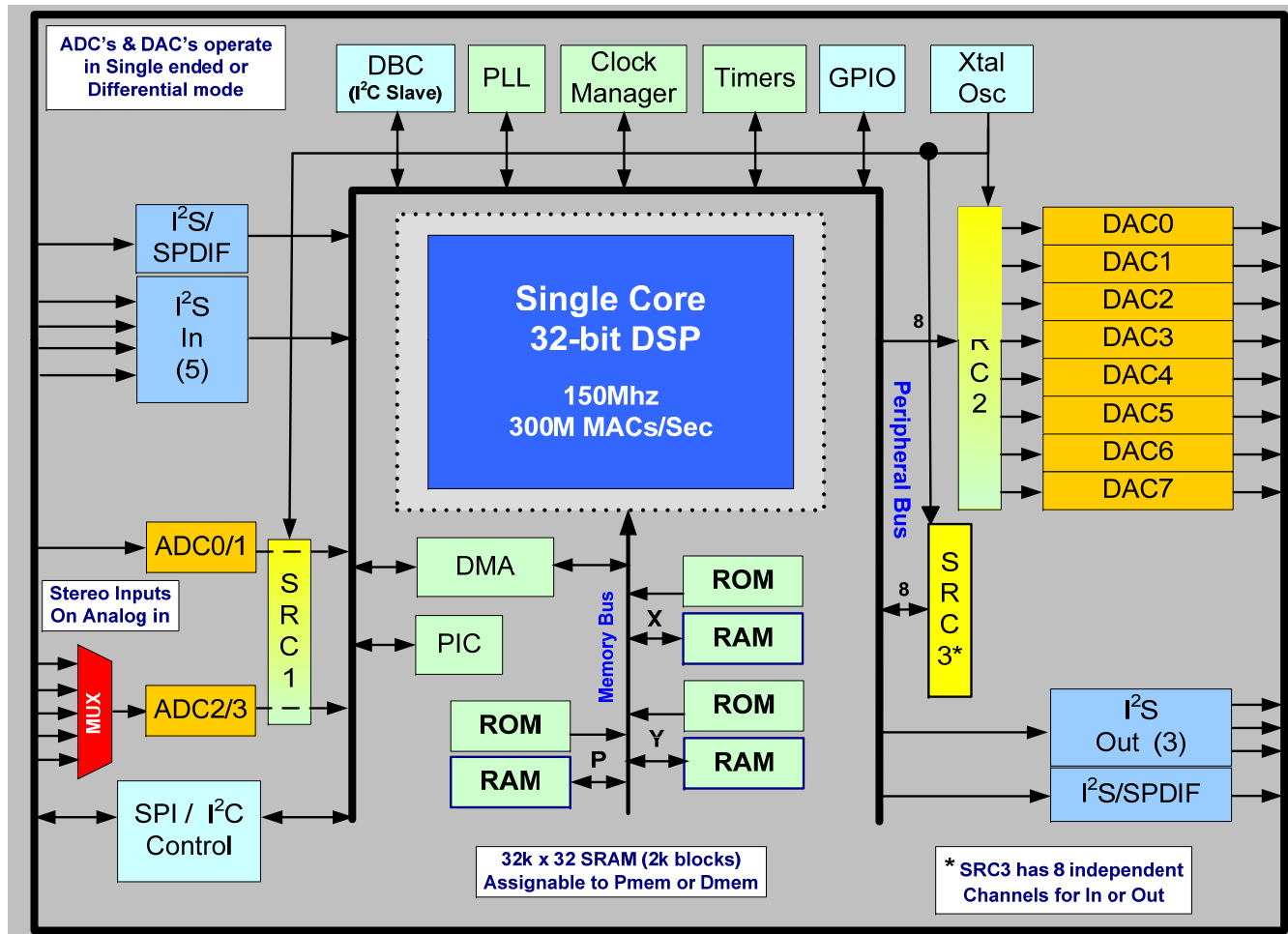
- SRC: 8-Channels
- Performance target: 130-140dB



■ *Circuit board with CS47048 ASoC*



# Introducing the CS470XX - ASOC



# Applications:

- Auto Head-Units
- Auto Amplifiers



- DTVs



- Specialty/PC Speakers



- Speaker Bars



- Compact A/V Systems

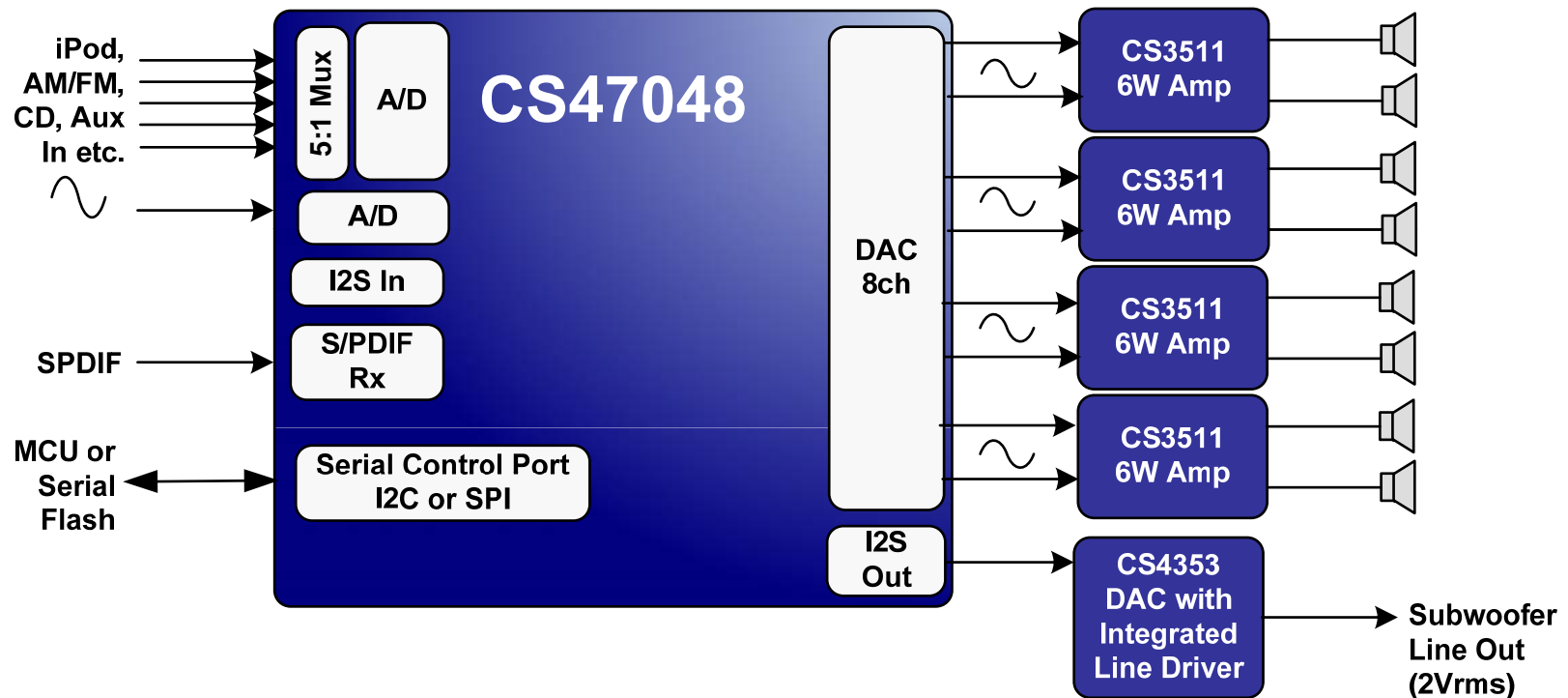


- BD/DVD HTiB & Receivers



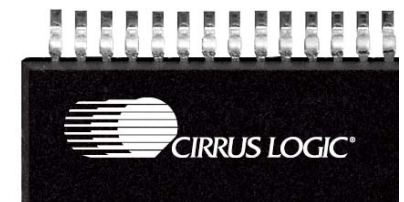
Keep it *Simple*, With Integration...

From a *Simple* Diagram to *Simple* Schematics to a *Simple* Layout.



- A Total Cirrus Logic Solution
- CS47048 + CS4353 + CS3511 (x3)

LEARN MORE AT  
[www.cirrus.com](http://www.cirrus.com)



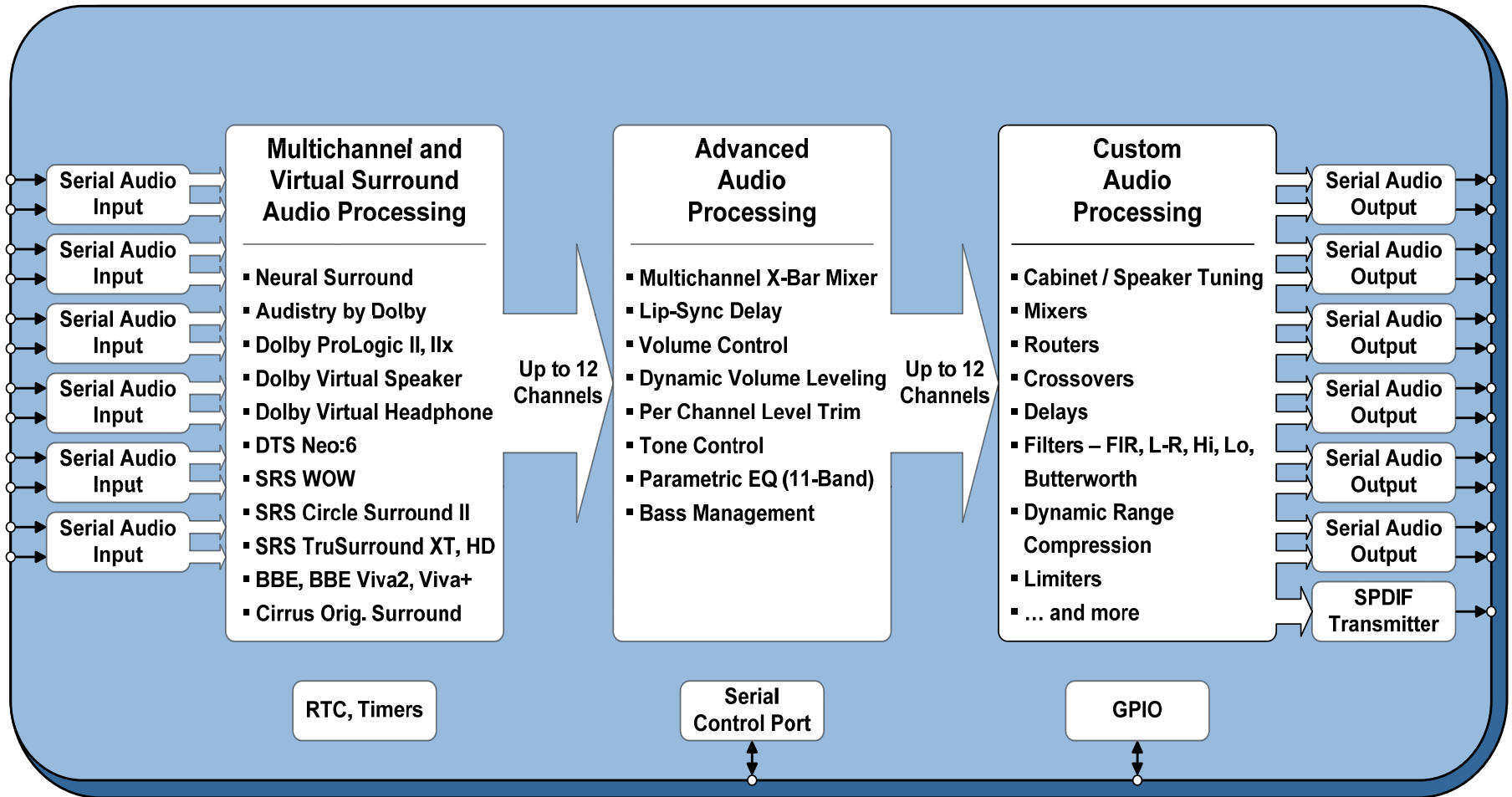
# What is the **XX** in CS470**XX**?

(Product Offering)

CS470 <b>XX</b>	A/D	D/A	SRC	TDM	SPDIF Input	SRAM MIPS	Package
CS470 <b>48</b>	Quad Stereo w/5:1 mux 2 <sup>nd</sup> Stereo	8	8ch	Yes	Yes	32Kx32 150 MIPS	100 QFP
CS470 <b>28</b>	Stereo w/5:1 mux	8	8ch	Yes	Yes	32Kx32 150 MIPS	100 QFP
CS470 <b>24</b>	Stereo w/5:1 mux	4	2ch	No	No	32Kx32 150 MIPS	100 QFP

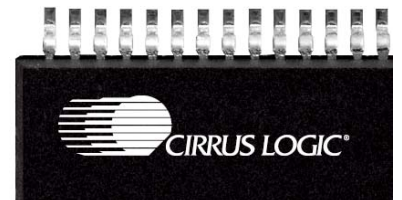
▪ *All are pin compatible*

# Firmware (CS485XX, CS470XX)



# Cirrus Royalty Free Firmware

- Cirrus **COMS** *Cirrus Original Multichannel Surround*
  - In production today
- Cirrus **IRC** *Intelligent Room Calibration*
  - Currently available on CS4953x.
- Cirrus **BXR** *BandXpander*
  - Modulates sub-harmonics to create higher freq for compressed music
  - Tunable
  - Completed, design-ins now
- Cirrus **CVT** *Cirrus Virtualization Technology*
  - Head-Phone & Speaker modes
  - Accepts 2-channel & multi-channel
  - Completed, design-ins now
- Cirrus **CBEN** *Cirrus Bass Enhancement*
  - In development
  - Available Summer 2009

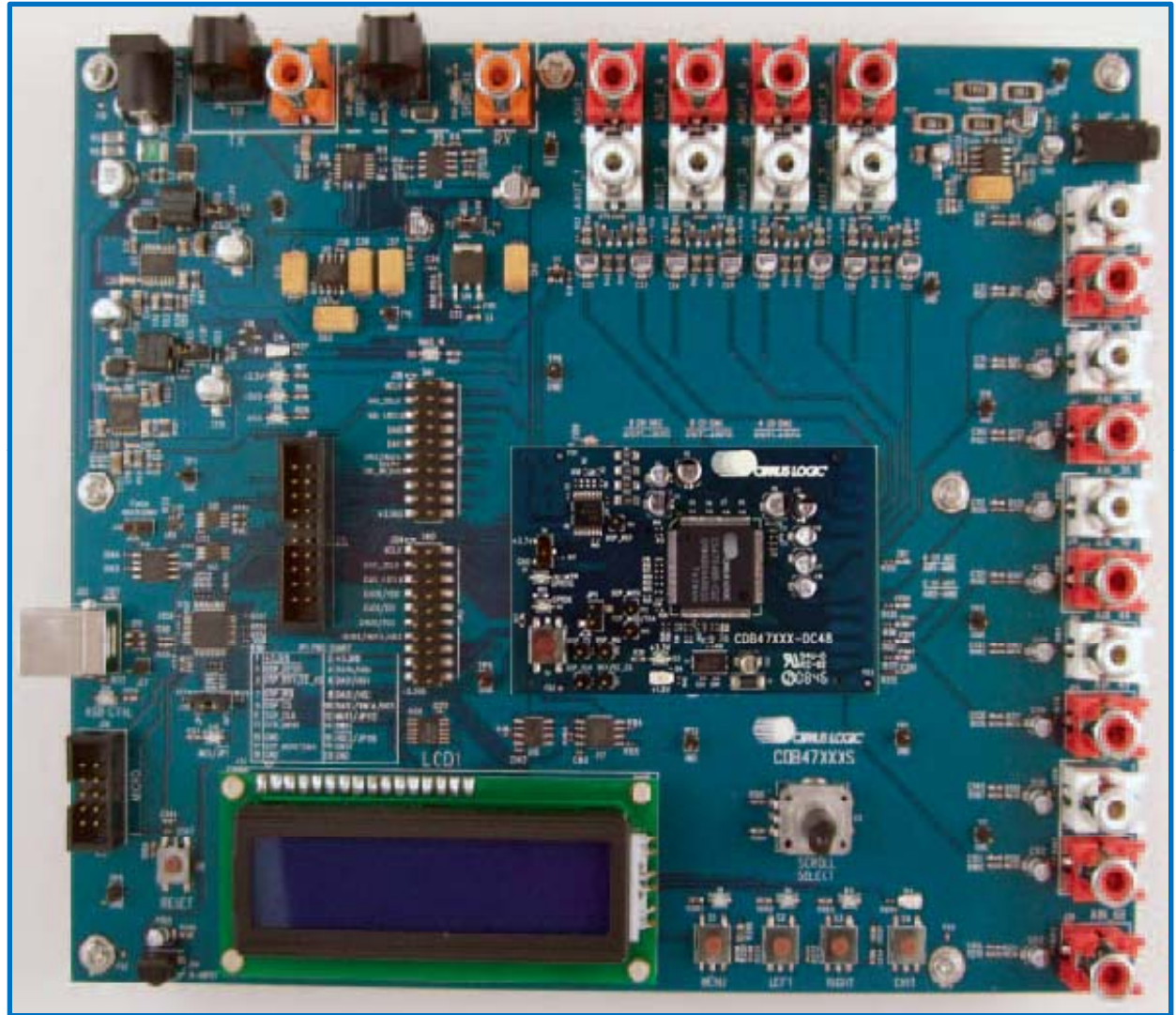


# Boards for the CS470XX

- Single Ended:
- CDB-470XS-DC48
- CDB-470XS-DC28
- CDB-470XS-DC24
  
- Differential Ended:
- CDB-470XD-DC48
- CDB-470XD-DC28
- CDB-470XD-DC24

- Type of board :
- D= differential,
- S= Single Ended

- Type of chip:
- 24= CS47024
- 28= CS47028
- 48= CS47048





*CIRRUS LOGIC*®