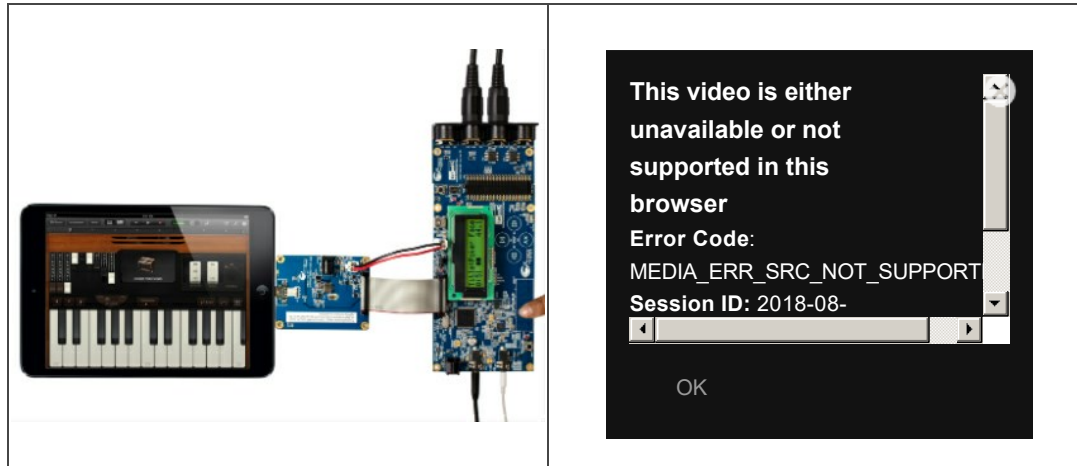


CY8CKIT-033A PSoC® 3 MFi (Made for iPod® | iPhone® | iPad®) Digital Audio Development Kit for Lightning™

Last Updated: Jan 29, 2018

The CY8CKIT-033A PSoC 3 MFi Digital Audio Development Kit for Lightning is available only to licensees of Apple's MFi program, through Apple's authorized MFi component distributor



Cypress's CY8CKIT-033A PSoC 3 MFi Digital Audio Development Kit for Lightning is the most comprehensive and proven development and reference design platform for bit-perfect consumer audio (speaker docks, FM transmitters, headphones, game controllers) and music creation (pianos/keyboards, guitars, drums, synthesizers, mixers, DJ turntables, microphones, USB audio and MIDI interfaces) accessory products that connect to Apple's iPod, iPhone and iPad devices, like Sonoma Wire Works' [GuitarJack](#), TASCAM's [iM2](#), [iM2X](#) and [iXJ2](#) microphones, and many others.

The kit includes license-free reference hardware and firmware that comes very close to a finished product, and is your quickest path to turn your MFi Lightning Digital Audio products from concept to production.

In addition, utilize Cypress's EA Console iOS app to jump-start development with the External Accessory framework, enabling communication between apps and accessories attached to an Apple iOS device. Also, the CY8CKIT-033A PSoC 3 MFi Digital Audio Development Kit for Lightning works with any

Core Audio or

Core MIDI compatible iOS apps, like Apple's [GarageBand](#).

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For more information on the MFi program, visit <http://developer.apple.com/MFi>.

Contact MFi@cypress.com to discuss your MFi Lightning Digital Audio needs.

Features

- Made for iPod, iPhone and iPad
- Compatible with Lightning and/or 30-pin dock connector
- Compliant to Apple's latest MFi Accessory Interface Specification
- Mac/PC connectivity via USB
- Self-powered, Apple-device-powered or USB-bus-powered
- Best-in-class USB Audio active power consumption
- USB audio streaming input and output, with [patent-pending, bit-perfect USB audio clock synchronization and recovery scheme](#)
- 16-/24-bit audio, 44.1/48 (and up to 96) kHz sampling rate
- USB MIDI input and output
- Compatible with Core Audio and Core MIDI compliant applications
- External Accessory framework for app ↔ accessory communication and interaction
- CapSense buttons and slider (e.g., audio playback and MIDI controls)
- Integrated over-current protection for iPad charging

RELATED RESOURCES

- Development Kits/Boards (12)
- Technical Articles (1)
- Other Resources (5)
- PSoC Programmer (1)

RELATED PAGES

- [CY8C32xxx](#)
- [CY8C34xxx](#)
- [CY8C36xxx](#)
- [CY8C38xxx](#)
- [PSoC® 3](#)
- [PSoC® Creator™](#)

- Multiple bootloader options (MFi, USB, etc) for seamless firmware upgrades
- Compatible with Android (USB MIDI, limited USB Audio)
- Expansion header for prototyping and development purposes
- Component/Composite video output
- Multichannel Audio ready with multiple I2S interfaces
- MEMS Microphone interface (PDM, I2S, Analog) ready

Kit Contents

- CY8CKIT-033A PSoC 3 MFi Digital Audio Development Kit for Lightning
- CY8CKIT-002 PSoC MiniProg3 Program and Debug Kit
- 2 x 3.5mm audio cables
- Quick Start Guide

Software Prerequisites

Software Title	Description	Link
PSoC Creator	This kit requires PSoC Creator for development	Download
PSoC Programmer	This kit requires PSoC Programmer for programming	Download

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Related Resources

Development Kits/Boards

CY8CKIT-001 PSoC® Development Kit	01/25/2018
CY8CKIT-002 PSoC® MiniProg3 Program and Debug Kit	03/12/2018
CY8CKIT-029 PSoC® LCD Segment Drive Expansion Board Kit	01/25/2018
CY8CKIT-017 CAN/LIN Expansion Board Kit	01/25/2018
CY8CKIT-023 PSoC® MFi (Made for iPod iPhone iPad) Expansion Board Kit	01/29/2018
CY8CKIT-012 PSoC® Prototyping and Development Expansion Board Kit	01/25/2018
CY8CKIT-030 PSoC® 3 Development Kit	01/29/2018
CY8CKIT-031 - PSoC® CapSense® Expansion Board Kit	04/03/2018
CY8CKIT-050 PSoC® 5LP Development Kit	04/02/2018
CY8CKIT-025 PSoC Precision Analog Temperature Sensor Expansion Board	01/25/2018
PSoC® 3 Development Kits	02/15/2018
PSoC® 5LP Development Kits	02/16/2018

Technical Articles

Designing Modern USB Audio Systems	12/03/2010
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Other Resources

Oscium's New iMSO-104 Oscilloscope Powered By Cypress's PSoC® 3 Device Turns iPod touch, iPhone and iPad into Easy-to-Use Mixed Signal Scopes	03/07/2018
Cypress's PSoC® 3 Device Powers Hot New GuitarJack Model 2 From Sonoma Wireworks	03/07/2018
Oscium's New WiPry™ Family Powered By Cypress's PSoC® 3 Device Turns iPod touch, iPhone and iPad into Spectrum Analyzer or Dynamic Power Meter	03/07/2018
Cypress's PSoC® 3 Device Enables TEAC Corporation's Microphone Accessories To Deliver Bit-Perfect Digital Audio with iPhone, iPad, and iPod touch	03/07/2018
Cypress Accelerates Designs for Apple's All-Digital Lightning Connector with New Development Kit for iPhone, iPad and iPod Audio Accessories	07/17/2013

PSoC Programmer

How to Design with PSoC® 3, PSoC 4, and PSoC 5LP - KBA86521	05/31/2016
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SOLUTIONS

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