Updating CY8CKIT-042-BLE KitProg and CySmart USB Dongle Firmware – KBA96152

Question: CY8CKIT-042-BLE KitProg firmware and the CY5670 CySmart USB Dongle KitProg and device firmware shows out of date. How should I update the firmware on these boards?

Answer: To update the KitProg firmware on CY8CKIT-042-BLE Bluetooth Low Energy (BLE) Pioneer Kit baseboard and CY5670 CySmart USB Dongle (BLE Dongle), and the PRoC BLE device firmware on the BLE dongle, do the following:

CY8CKIT-042-BLE Pioneer Kit – KitProg Update

1. Connect the BLE Pioneer Kit Baseboard to your computer using the USB Standard-A to Mini-B cable provided.
2. Wait for driver enumeration to complete (you can "skip" the windows update as the drivers are locally installed on your PC), shown in Figure **1**.

Figure 1. Driver Installation
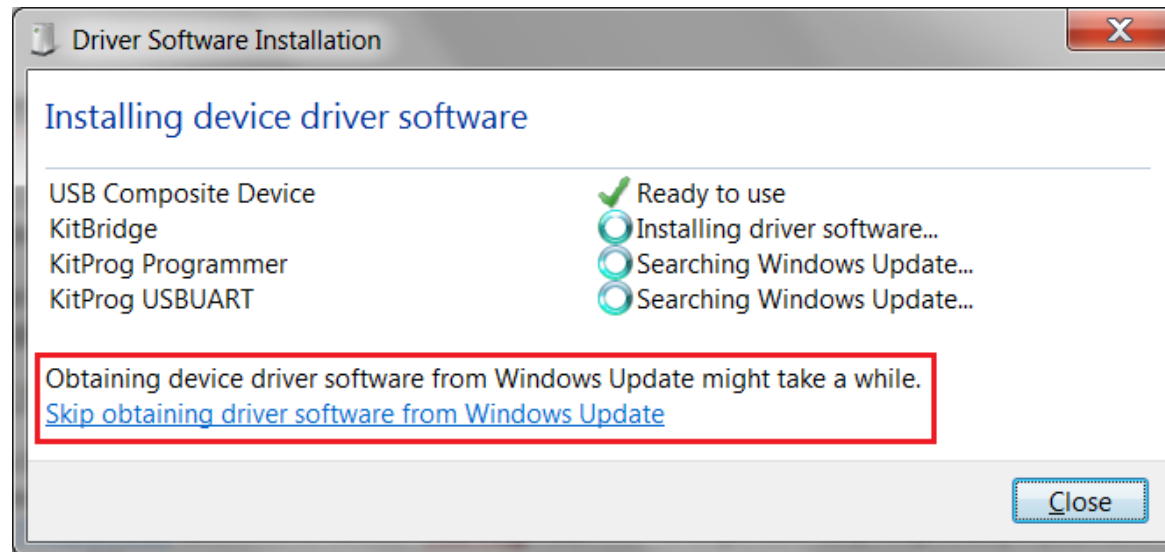
3. Open [PSoC Programmer](#) and click to select the BLE Pioneer Kit Baseboard KitProg.
   Note If you have multiple Cypress kits with KitProg firmware connected, unplug other kits to ensure that you select the right kit.
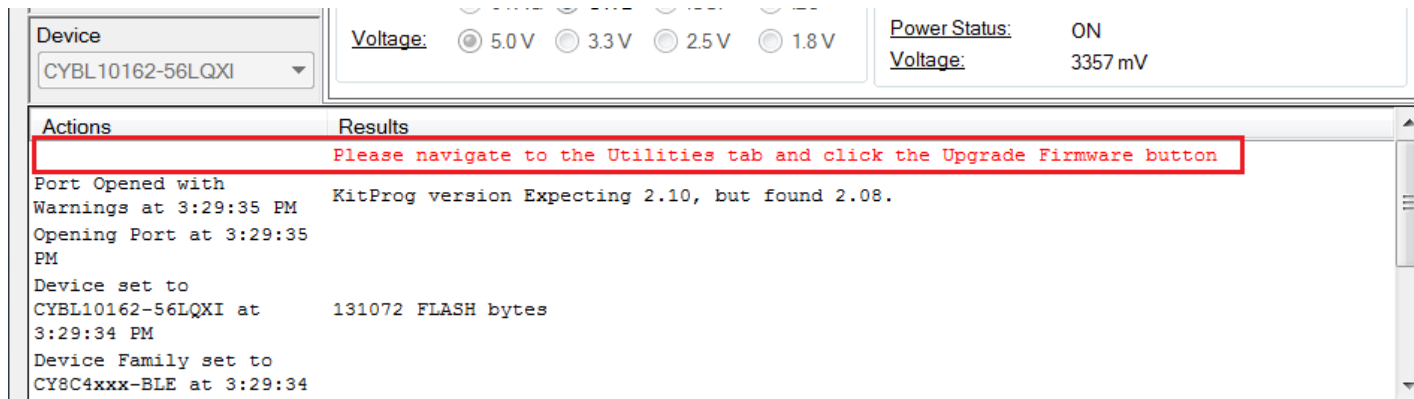
   When you connect to the BLE Pioneer Kit Baseboard, you may see the warning about programmer being out of date, as shown in Figure 2.

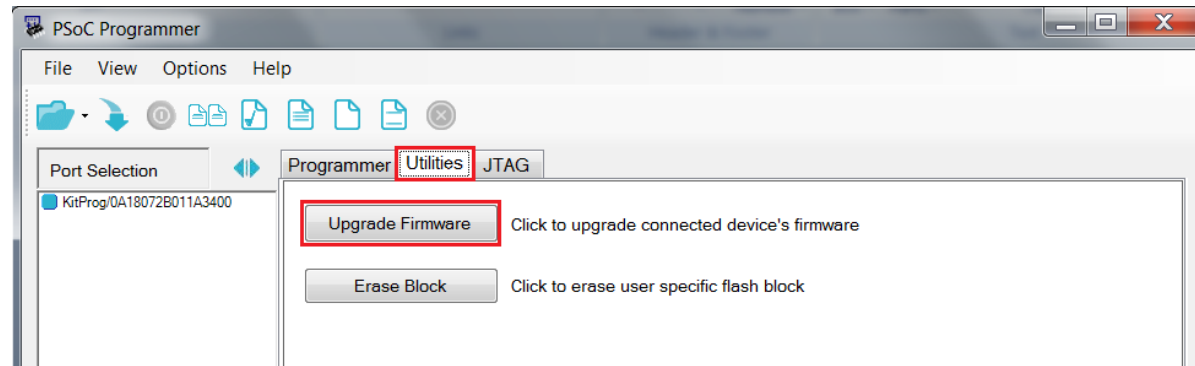Figure 2. CY8CKIT-042-BLE Pioneer Kit - Programmer Out-of-Date
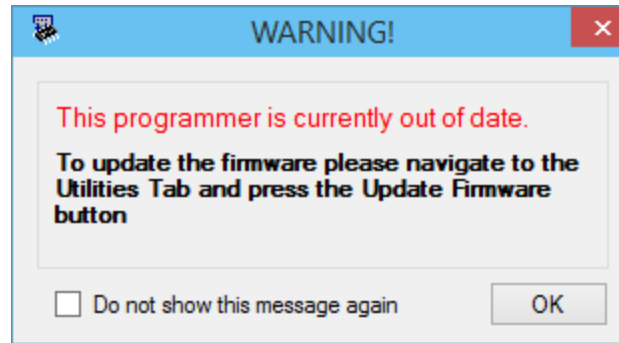
A similar warning is displayed in the PSoC Programmer window, as shown in Figure 3.

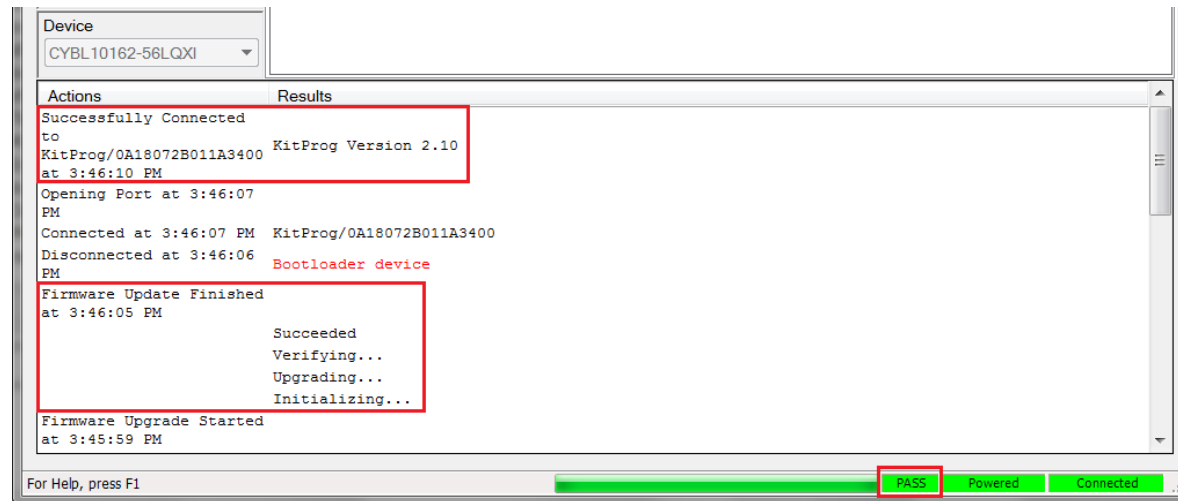Figure 3. CY8CKIT-042-BLE Pioneer Kit - Programmer Out-of-Date

4. To upgrade the firmware, go to the **Utilities** tab and click **Upgrade Firmware**, as shown in Figure **4**.

Figure 4. Upgrade Firmware

5. Verify that KitProg has been updated to version 2.10 (or newer), as shown in Figure **5**.

Figure 5. CY8CKIT-042-BLE Pioneer Kit KitProg Firmware Upgrade

You have successfully completed the KitProg firmware upgrade on the BLE Pioneer Kit.

CY5670 CySmart USB Dongle – KitProg Update

1. Plug the CySmart BLE Dongle into your PC's USB port, as shown in Figure 6.

Figure 6. CySmart USB Dongle

2. Wait for driver enumeration to complete (you can "skip" the windows update as the drivers are locally installed on your PC).
3. Open PSoC Programmer and click to select **"KitProg/BLE…"**
   Note CySmart USB Dongle name starts with KitProg/BLE…If you have multiple CySmart USB Dongles connected to your computer, then unplug other dongles to ensure that you select the right dongle.

   When you connect to the CySmart USB Dongle, you may see the following warning about programmer being out of date, as shown in Figure 7.

Figure 7. BLE Dongle - Programmer Out-of-Date
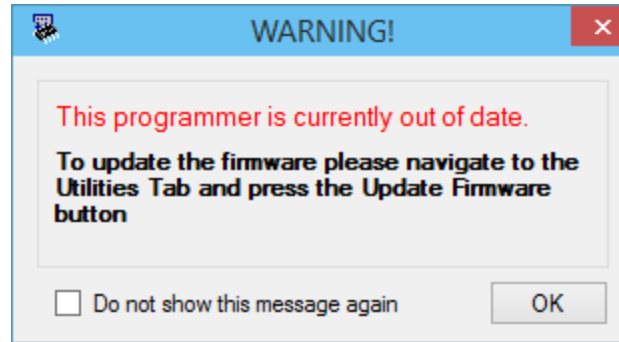
4. Go to the **Utilities** tab and click **Upgrade Firmware**.
5. Verify that KitProg has been updated to version 2.10 (or newer).
6. You have successfully completed the KitProg firmware upgrade on the CySmart BLE Dongle.

CY5670 CySmart USB Dongle – PRoC Firmware Update

1. Plug the CySmart BLE Dongle into your PC's USB port.
2. Connect to the BLE USB Dongle from the Port Selection window.
3. Select **File** > **File Load…** (or press F4).
4. Select the following file:
   C:\Program Files (x86)\Cypress\CY8CKIT-042-BLE Kit\1.0\Firmware\BLE Dongle\Hex Files\BLE_Dongle_CySmart.hex (or download the latest from www.cypress.com/CY8CKIT-042-BLE)
5. Select **File** > **Program** (or press F5).
6. Verify that programming of the CYBL10162-56LQXI device has completed successfully, as shown in Figure 8.

Figure 8. PRoC BLE Firmware Update
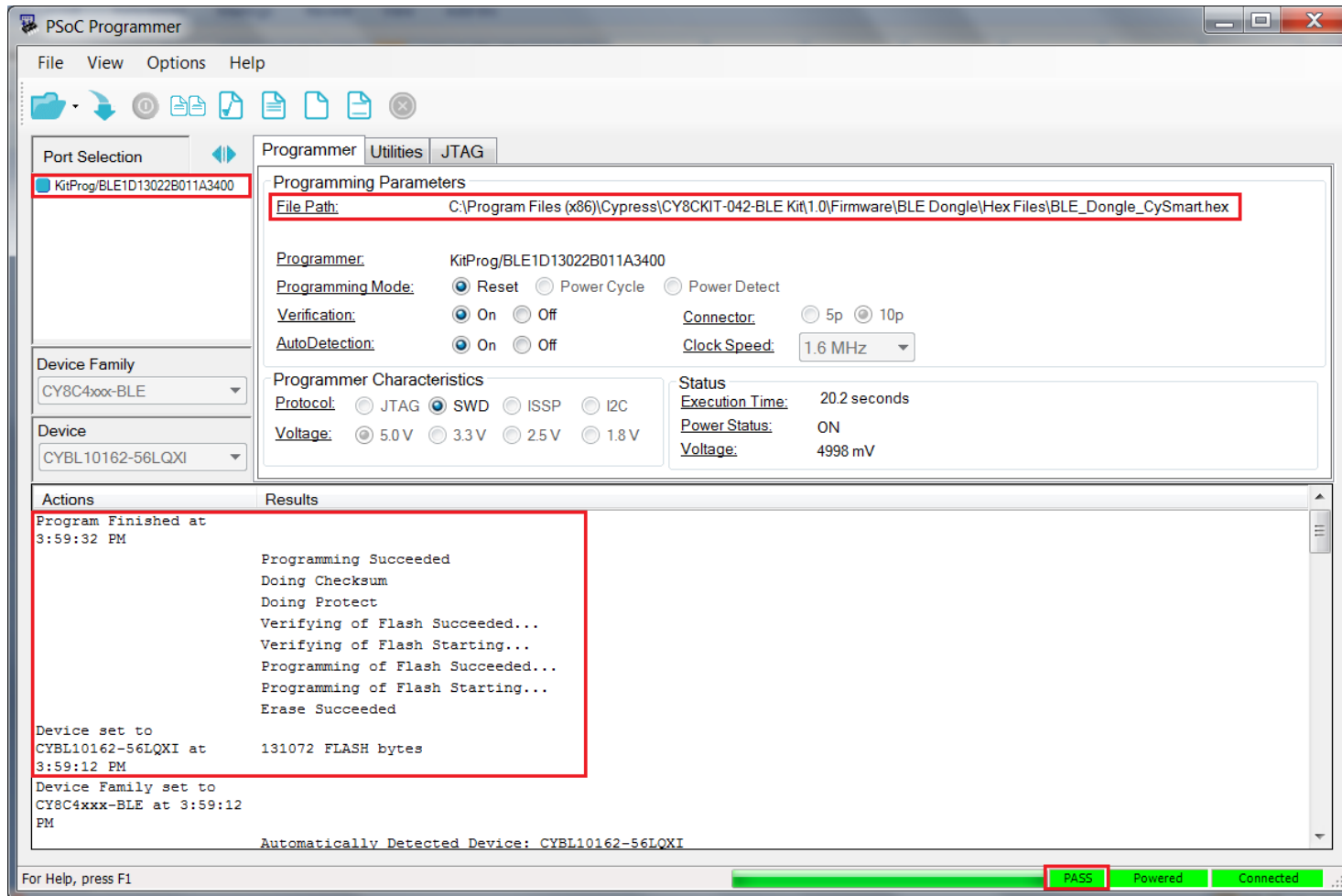
You have now successfully upgraded the BLE firmware on your CySmart BLE Dongle.

Related Categories:

 Keywords: CY8CKIT-042-BLE, BLE Pioneer Kit, CY5670 CySmart, BLE Dongle, BLE, KitProg, CySmart

***

Product Family: [Type the ORACLE Family listed under section Attachment 2 - Product Divisions Financial Reporting Structure in Spec 00-00077. Multiple products can be selected]

Related Tags: [Select the Tags by clicking the checkbox associated to the Tags]

Clocks & Buffers Tags

☐ Adapter	☐ Algorithm	☐ Bitmap	☐ Buffer	☐ Bypass	☐ CLKMAKER
☐ CML	☐ CY3670	☐ CY3672	☐ CY3675	☐ CY36800	☐ Cascade
☐ Charge Pump	☐ Clock Tree	☐ Clocks	☐ Clocks and Buffers	☐ ComLink	☐ Crystal Oscillators
☐ CyClock	☐ CyClockWizard	☐ CyberClocks	☐ CyberClocks Online	☐ Cycle to Cycle	☐ DCXO
☐ Delay	☐ Deterministic Jitter	☐ Differential	☐ Divider	☐ Duty Cycle	☐ EMI
☐ Enhanced Performance	☐ Ent	☐ Entrant	☐ FNOM	☐ Factory	☐ Failsafe
☐ Fanout	☐ FastEdge	☐ Feedback	☐ Field	☐ Flexo	☐ Frequency
☐ Frequency Margining	☐ Function Select	☐ Generators	☐ Ground Bounce	☐ HPB	☐ HSTL
☐ Hershey Kiss	☐ I2C	☐ IBIS Model	☐ Impedance	☐ Input	☐ InstaClock
☐ Inverted	☐ Jed	☐ Jedec	☐ Jitter	☐ LVCMOS	☐ LVDS
☐ LVPECL	☐ Layout	☐ Lexmark Profile	☐ Loop Bandwidth	☐ MoBL	☐ Modulation Rate
☐ Multiplier	☐ NZDB	☐ Non-Volatile Memory	☐ OTP	☐ Offset	☐ Oscillator
☐ Output	☐ Overvoltage	☐ PCI Express	☐ PLL	☐ PPM	☐ PREMIS
☐ Period	☐ Phase	☐ Phase Noise	☐ Power Supply Noise	☐ Program	☐ Programmable
☐ Propagation	☐ Pullability	☐ RMS	☐ Rambus	☐ Random Jitter	☐ Reference
☐ Rise Fall Time	☐ RoboClock	☐ Schematic	☐ Serial	☐ Signal Integrity	☐ Skew
☐ Socket	☐ Specialty Clocks	☐ Spread %	☐ Spread Aware	☐ Spread Profile	☐ Spread Spectrum
☐ Synthesizer	☐ TCXO	☐ TIE	☐ Termination	☐ Thermal	☐ Translator
☐ Undervoltage	☐ UniClock	☐ Unit Interval	☐ VCO	☐ VCXO	☐ Volatile Memory
☐ Voltage Droop	☐ XCG	☐ XDR	☐ XO	☐ Xtal	☐ ZDB

☐ Zepto				

Lighting & Power Control Tags

☐ Board Layout	☐ Boost Regulator	☐ Buck Regulator	☐ CY3261	☐ CY3267	☐ CY3268
☐ CY3269	☐ Color Mixing	☐ Current Sense	☐ DALI	☐ DMX	☐ FN Pins
☐ HB LEDs	☐ Hysteretic Controller	☐ MOSFETs	☐ MPPT	☐ Modulators	☐ PrISM
☐ Programming	☐ SSDM	☐ Schematics	☐ Switching Regulators	☐ Trip	☐ Voltage Regulator

Wireless/RF Tags

☐ 2.4 GHz	☐ 8DR	☐ Antenna	☐ Audio	☐ AgileHID	☐ Bridge
☐ CY3271	☐ CY3630	☐ CY4636	☐ CY4672	☐ CYFI	☐ CYFISNP
☐ CYRF6936	☐ CYRF7936	☐ Channel	☐ DDR	☐ DSSS	☐ GFSK
☐ HID	☐ HUB	☐ IRQ	☐ Interference Avoidance	☐ Keyboard	☐ Link Budget
☐ Mouse	☐ Node	☐ PMU	☐ PN Code	☐ PRoC	☐ PRoC-CS
☐ PRoC-EMB	☐ PRoC-TT	☐ PRoC-USB	☐ PRoC-UI	☐ Power Amplifier	☐ Preamble
☐ Pseudo Noise code	☐ RF	☐ RSSI	☐ Range	☐ Remote	☐ SCD
☐ SDR	☐ SOP	☐ SPIM	☐ Star-Network Protocol	☐ Streaming	☐ Trackpad
☐ Wireless	☐ Wireless USB	☐ Wireless USB LP	☐ Wireless USB LS	☐ Wireless USB LR	☐ Wireless USB NL
☐ Wireless Capacitive Touch	☐	☐	☐	☐	☐

Memory Tags

☐ Address Bus	☐ Async	☐ Automotive	☐ Autostore	☐ BHE / BLE	☐ BUSY
☐ Battery Backup	☐ Burst	☐ Bus Contention	☐ Clock	☐ DDR	☐ Data Bus
☐ Data Integrity	☐ Data Retention	☐ Datasheet	☐ Dual Port	☐ Echo Clocks	☐ FIFO
☐ FPGA	☐ Flags	☐ Flowthrough	☐ Fullflex	☐ FRAM	☐ HOLD
☐ HD-FIFO	☐ HSB	☐ I2C	☐ INT	☐ Impedance Matching	☐ Interface

☐ Interleaving	☐ JTAG	☐ Junction Temperature	☐ Low Power	☐ MSL	☐ Migration Path
☐ MoBL	☐ Models	☐ NoBL	☐ ODT	☐ Obsolete	☐ PCB
☐ PLL / DLL	☐ Packaging	☐ Parallel	☐ Parity	☐ Part Decoder	☐ Part Difference
☐ Password Protection	☐ Pin Configuration	☐ Pipeline	☐ Power Consumption	☐ Power On State	☐ Processor
☐ QDR	☐ Qualification Reports	☐ Quality	☐ RECALL	☐ RTC	☐ Race Condition
☐ Read	☐ SER	☐ SPCM	☐ SPI	☐ SRAM	☐ Serial
☐ Signal Integrity	☐ Sync	☐ Technology	☐ Termination	☐ Timing	☐ Vcap
☐ Vddq	☐ Voltage Levels	☐ Vref	☐ Width / Depth Expansion	☐ Write	☐ nvSRAM
☐ uPower	☐	☐	☐	☐	☐

Interface Tags

☐ 10B/8B Decoder	☐ 3 Level Inputs	☐ ALDEC	☐ ATM	☐ Altera	☐ BIST
☐ BSDL	☐ Biasing	☐ CDR	☐ CML	☐ CPLD	☐ CY3900i
☐ CY3950i	☐ CYUSBISRPC	☐ Cable	☐ Cable Driver	☐ Channel Bonding	☐ Clock Multiplier
☐ Clocking Modes	☐ Coaxial Cable	☐ Copper Cable	☐ Coupling	☐ Crystal	☐ Current
☐ DVB	☐ Data Character	☐ Data rate	☐ Delta39K	☐ Deserialize	☐ Deserializer
☐ Dual Channel	☐ EPLD	☐ EPROM	☐ ESCON	☐ Elasticity Buffer	☐ Equalizer
☐ Error	☐ Evaluation Board	☐ FPGA	☐ Fiber Optics	☐ Flash370i	☐ Framer
☐ Framing Character	☐ Framing Mode	☐ Gigabit Ethernet	☐ Hex	☐ High Speed Serial Links	☐ Hotlink
☐ HotlinkI	☐ HotlinkII	☐ IP	☐ Isr	☐ Jtag	☐ LFI
☐ LVTTL	☐ Logic Level	☐ Loop Back	☐ Macrocell	☐ Max340	☐ Model
☐ Non-Volatile	☐ OC-1	☐ OC-2	☐ OC-3	☐ Operating System	☐ PAL
☐ PECL	☐ PLD	☐ PLL	☐ Parallel Input	☐ Parallel Output	☐ Parity
☐ Phase Align Buffer	☐ PoF	☐ Point To Multi Point	☐ Point To Point	☐ Power Supply	☐ Programming
☐ Quad Channel	☐ Quantum38K	☐ Receiver	☐ Recovered Clock	☐ Redundant Outputs	☐ Reference Clock
☐ Report File	☐ Reprogrammable	☐ SMA	☐ SMPTE	☐ SMPTE-259M	☐ SMPTE-292M
☐ SONET	☐ SPICE	☐ SPLD	☐ STAPL	☐ SVF	☐ Serial Input
☐ Serial Output	☐ Serializer	☐ Simulator	☐ Size	☐ Special Character	☐ Specification
☐ TTL	☐ Temperature	☐ Third Party Tool	☐ Transceiver	☐ Transmitter	☐ USBISRPC Cable

☐ Ultra37K	☐ User Guide	☐ VHDL	☐ Verilog	☐ Voltage	☐ Warp
☐ Word Sync Sequence					

***

PSoC 1 Tags

☐ ADC	☐ ADCINC	☐ Analog	☐ Analog Bus	☐ API	☐ Assembly Language
☐ Boot.asm	☐ Bootloader	☐ BSDL Files	☐ Build Errors	☐ Calibration	☐ Capsense
☐ Clock	☐ Clock Synchronization	☐ Cloning	☐ Column Clock	☐ Communication	☐ Comparator
☐ Compiler	☐ Counter	☐ CPU Speed	☐ Crystal	☐ CT Block	☐ DAC
☐ Debugging	☐ Decimator	☐ Delta Sigma ADC	☐ Development Kit	☐ Digital	☐ Dynamic Reconfiguration
☐ ECO	☐ EEPROM	☐ Errata	☐ Filter	☐ Flash	☐ Flash Security
☐ Global Resources	☐ GPIO	☐ Hex File	☐ I2C	☐ I2C-USB Bridge	☐ ICE Cube
☐ Installation	☐ Internet Explorer	☐ Interrupt	☐ ISR	☐ ISSP	☐ Large Memory Model
☐ LCD	☐ License	☐ MAC	☐ MiniProg1	☐ MiniProg3	☐ Mux
☐ Mux Bus	☐ OCD	☐ Offset	☐ Pod	☐ Port and Pins	☐ Power Management
☐ Production Programmer	☐ PWM	☐ RAM	☐ RTC	☐ SAR	☐ SC Block
☐ SMP	☐ SPI	☐ System Level Design	☐ Timer	☐ UART	☐ USB
☐ USBUART	☐ Watchdog	☐ Amplifier UM	☐ Analog Reference	☐ Analog UM	☐ Build Tools
☐ Communication UM	☐ CRC UM	☐ CYFI	☐ Device Programming	☐ Digital UM	☐ DTMF
☐ Fan Controller UM	☐ Firmware UM	☐ FMEA	☐ Port Expander	☐ PSoC Power System Architecture	☐ Voltage Sequencer UM

***

PSoC 3/4/5 Tags

Component Tags					
☐ Analog Hardware Mux	☐ Analog Mux	☐ Boost Converter	☐ Bootloader / Bootloadable	☐ CAN	☐ CapSense_CSD

☐ Character LCD	☐ Clock	☐ Comparator	☐ Control / Status Register	☐ Counter	☐ CRC
☐ DAC	☐ Debouncer	☐ Delta Sigma ADC	☐ DFB	☐ DFB Assembler	☐ Die Temperature
☐ Digital Comparator	☐ Digital Multiplexer	☐ DMA	☐ EEPROM	☐ emFile SPI Mode	☐ EMIF
☐ EzI2C Slave	☐ Fan Controller	☐ Filter	☐ Frequency Divider	☐ Glitch Filter	☐ Global Signal Reference
☐ Graphic LCD	☐ I2C /I 2S	☐ iAP	☐ Interrupt	☐ LIN	☐ Logic Gates
☐ Lookup Table	☐ Manual Routing	☐ MDIO	☐ Mixer	☐ Opamp	☐ PGA
☐ Ports and Pins	☐ Power Monitor	☐ PRS	☐ PWM	☐ Quadrature Decoder	☐ Resistive Touch
☐ RTC	☐ RTD Calculator	☐ Sample / Track and Hold	☐ SAR ADC	☐ SAR Sequencer	☐ Segment LCD
☐ SGPIO	☐ Shift Register	☐ Sleep Timer	☐ SM / PMBus	☐ SPDIF	☐ SPI
☐ Sync	☐ Thermistor Calculator	☐ Thermocouple Calculator	☐ TIA	☐ Timer	☐ TMP05 Interface
☐ TrimMargin	☐ UART	☐ UDBClkEn	☐ USBFS	☐ USBMIDI	☐ USBUART (CDC Interface)
☐ Voltage Fault Detector	☐ Voltage Sequencer	☐ Vref	☐ WaveDAC		

General Tags

☐ Analog Bus	☐ Analog Global Bus	☐ Analog Mux Bus	☐ API	☐ Application Specific	☐ Assembly Language
☐ Bootloader Host	☐ Boundary Scan / BSDL	☐ Bridge Control Panel	☐ Build Settings	☐ Clock	☐ Compiler - GCC
☐ Compiler - KEIL	☐ Compiler - MDK	☐ Compiler - RVDS	☐ Cortex-M0	☐ Cortex-M3	☐ Creator Registration
☐ Custom Component Interconnect	☐ Datapath Configuration Tool	☐ Debugging	☐ DMA Wizard	☐ DVK	☐ ECO
☐ Errata	☐ Error Message	☐ Flash	☐ Hex File	☐ Installation	☐ ISSP / HSSP
☐ KEIL Registration	☐ Linux Platform	☐ Low Power Modes	☐ LVD / HVD	☐ MFi	☐ MiniProg3
☐ Optimization	☐ Programmer COM	☐ PSoC Creator	☒ PSoC Programmer	☐ Reset	☐ RTOS
☐ Schematic	☐ Silicon	☐ Software Download	☐ STA	☐ Supply Voltage	☐ System Reference Guide
☐ Verilog	☐ Watchdog	☐ Windows Platform			

Kit Tags

☐ CAN / LIN EBK	☐ CapSense Expansion EBK	☐ CY8CKIT-001 Kit	☐ CY8CKIT-030 / 050 Kit	☐ CY8CKIT-042 Kit	☐ Digital Audio EBK
☐ First Touch Kit	☐ LCD Segment Drive EBK	☐ MFI EBK	☐ Power Supervisor EBK	☐ PSoC 3/4/5 Processor Module	☐ Thermal Management EBK

***

Touch Sensing Tags

☐ ADC	☐ Air gap	☐ Backlighting	☐ Bleeder Resistor	☐ Bootloader	☐ CMOD
☐ CSA	☐ CSD	☐ CSD Parameters	☐ CSD2X	☐ CSDADC	☐ CSDAUTO
☐ CY3203A	☐ CY3213A	☐ CY3214	☐ CY3218	☐ CY3280-20x34	☐ CY3280-20xx6
☐ CY3280-21x34	☐ CY8C20x34	☐ CY8C20xx6	☐ CY8C21x34	☐ CY8C21xxx-CapSense Express	☐ CY8C24x94
☐ CY8CMBR2044	☐ CapSense Express	☐ Circuit Housing	☐ Conductive Objects	☐ Configuration	☐ Diplexing
☐ Dynamic Reconfiguration	☐ EEPROM	☐ EMI	☐ ESD	☐ Errors	☐ FR4
☐ Filters	☐ Finger Threshold	☐ Flex PCB	☐ I2C	☐ I2C-USB Bridge	☐ IDAC
☐ IMO and Prescaler	☐ ITO	☐ Layout Guidelines	☐ Metal	☐ Noise	☐ Overlay
☐ PSoC3 CapSense	☐ Parasitic Capacitance	☐ Pathfinder	☐ Power Consumption	☐ Proximity	☐ SNR
☐ SPI	☐ Scanning Techniques	☐ Schematic	☐ Sensors	☐ Shield	☐ Sliders
☐ SmartSense	☐ Tuning	☐ UART	☐ Water	☐ Water Proofing	☐

***

USB Controllers Tags

☐ 8051	☐ AN2131	☐ AT2LP	☐ ATA / ATAPI	☐ ATA Commands	☐ Asynchronous
☐ Auto Mode	☐ Bandwidth	☐ Blaster	☐ Bulk Transfer	☐ Bus Power	☐ C#
☐ C++	☐ CAT5	☐ CF Card	☐ CY3216	☐ CY3649	☐ CY3654
☐ CY3655	☐ CY3660	☐ CY3662	☐ CY3664	☐ CY3674	☐ CY3681
☐ CY3684	☐ CY3685	☐ CY3686	☐ CY4605	☐ CY4606	☐ CY4611B
☐ CY4615	☐ CYUSB	☐ Clock	☐ Compliance	☐ Control Center	☐ Control Transfer
☐ Crystal	☐ CyConsole	☐ DLL	☐ Debug	☐ Descriptors	☐ Driver
☐ EEPROM	☐ EZ-HOST	☐ EZ-OTG	☐ EZ-USB	☐ Emulation	☐ EnCoreII
☐ EnCoreIII	☐ EnCoreV	☐ Encore	☐ Endpoint	☐ Enumeration	☐ Errata
☐ FIFO	☐ FX	☐ FX1	☐ FX2	☐ FX2LP	☐ Firmware
☐ Firmware Debug	☐ Flags	☐ Framework	☐ Full Speed	☐ GPIF	☐ HDD
☐ HID	☐ HX2	☐ HX2LP	☐ Hi-Lo Programmer	☐ High Speed	☐ Host Application

☐ Hub	☐ I2C	☐ ICE	☐ IN Transfer	☐ Interrupt Transfer	☐ Interrupts
☐ Isochronous Transfer	☐ Keil	☐ Keyboard	☐ Layout	☐ Library	☐ Loader
☐ Low Speed	☐ M8A	☐ M8B	☐ Manual Mode	☐ Mass Storage	☐ Memory
☐ Mouse	☐ NX2LP	☐ NX2LP-Flex	☐ Nand Flash	☐ Nand Manufacturing Utility	☐ OTP
☐ OUT Transfer	☐ Port IO	☐ Register	☐ Renumeration	☐ Report	☐ Reset
☐ SFR	☐ SIE	☐ SL811HS	☐ SPI	☐ SX2	☐ Schematic
☐ Schematic Review	☐ Screamer	☐ Script	☐ Self Power	☐ Slave FIFO	☐ Streaming
☐ SuiteUSB	☐ Synchronous	☐ TX2	☐ TX2UL	☐ Tetra Hub	☐ Throughput
☐ Timer	☐ UART	☐ UDMA	☐ USBFS	☐ USBUART	☐ USBSerial
☐ Vendor Command	☐ Video Class	☐ WHQL	☐ WLK	☐ cyapi	☐ uVision
SuperSpeed					
☐ FX3	☐ ADMux	☐ ARM926EJ -S	☐ Bootloader	☐ DMA	☐ Eclipse
☐ FX3 GPIO	☐ FX3 Power Management	☐ FX3 Power supply	☐ FX3 SDK	☐ GPIF II	☐ HS-OTG
☐ JTAG	☐ LPP	☐ MSC	☐ Oscillator	☐ RTOS	☐ SD Card
☐ Slavefifo	☐ USB 3.0	☐ USB Compliance Test	☐ USB Host	☐ UVC	☐
☐ FX3S	☐ eMMC	☐ SDIO	☐ S-Ports	☐ Bay	☐ Benicia
☐ HX3	☐ ASSP	☐ Battery charging	☐ Bootloader	☐ Cortex-M0	☐ EEPROM
☐ GPIOs	☐ HX3 Power Management	☐ HX3 Power supply	☐ I2C	☐ In-system programming	☐ Oscillator
☐ USB 3.0 hub	☐ USB Shared Link™	☐	☐	☐	☐

Knowledge Base Article Type: [Select the category by clicking the checkbox associated]

KB Type-1	KB Type-2
☐ Compiler	☐ ByteCraft
	☐ Imagecraft
	☐ Keil
	☐ HiTech
☐ Component Development	☐ Training/Things you should know
	☐ Component Architecture
	☐ Component/Project management
	☐ Datapath
	☐ Analog components
	☐ Digital components
	☐ Component software/tools
	☐ Component Testing
☒ Development Kits	☐ FirstTouch Kit
☐ Development Tools	
☐ Device Drivers	☐ Pullability
	☐ Mass Storage
☒ Device Programming	☐ PSoC Programmer
☐ Documentation	
☐ Firmware	
☐ General	
☐ Hardware	☐ Digital
	☐ Specifications
	☐ Analog
☐ Known Problems and Solutions	
☐ Microcontrollers	☐ 8051
	☐ M8
	☐ M8C
☐ Modules	

Platforms	MacOS X
	Windows
Protocols	HID
	I2C
Quality	
Reference Designs	
Software	PSoC Designer
	PSoC Creator
User Modules	Analog
	Digital

Document History

Document Title: Updating CY8CKIT-042-BLE KitProg and CySmart USB Dongle Firmware – KBA96152

Document Number: 001-96152

Rev.	ECN No.	Orig. of Change	Description of Change
**	4657504	PMAD	New KB Article

Distribution: WEB

Posting: None