

## CY8C21512-12PVXE



Status: In Production

### Datasheet



English

File Type: PDF

Updated: Nov 20, 2015

### Product Specs

### Packaging/Ordering

### Quality and RoHS

### Technical Documents

#### CY8C21512-12PVXE

|  |                               |
|--|-------------------------------|
| Development Kit                                    | CY3213A-DK                    |
| Automotive Qualified                               | Y                             |
| Boost Converter (V)                                | 0                             |
| CPU Core   | M8C                           |
| CapSense   | Y                             |
| Comm. Interface                                    | I2C, SPI, UART                |
| Dedicated ADC (No._ Max. Resolution @ Sample Rate) | DelSig (1, 10-bit @ 5.9 ksps) |
| Dedicated DAC (No._ Max. Resolution @ Sample Rate) | None                          |
| Flash (KB)   | 8                             |
| LCD Direct Drive                                   | N                             |
| Max. Operating Frequency (MHz)                     | 12                            |
| Max. Operating Temp. (°C)                          | 125                           |
| Max. Operating Voltage (V)                         | 5.25                          |
| Min. Operating Temp. (°C)                          | -40                           |
| Min. Operating Voltage (V)                         | 3.00                          |
| No. of CapSense Channels                           | 1                             |
| No. of CapSense IO                                 | 20                            |
| No. of Dedicated Comparators                       | 0                             |
| No. of Dedicated I2C                               | 1                             |
| No. of Dedicated OpAmps                            | 0                             |
| No. of Dedicated SPI                               | 0                             |
| No. of Dedicated UART                              | 0                             |
| No. of GPIOs                                       | 24                            |
| No. of Programmable Analog Blocks                  | 0                             |
| No. of Programmable Digital Blocks                 | 1                             |
| PWMs   | HW                            |
| Proximity Sensing                                  | Y                             |
| SRAM (KB)  | 0.5                           |
| Sliders  | 4                             |
| SmartSense Enabled                                 | N                             |
| Tape & Reel  | N                             |
| USB (Type)   | None                          |

#### DESIGN SUPPORT

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#### TRAINING

- [Workshops](#)
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| Availability | Quantity | Ships In    | Buy from Cypress              | Buy from Distributors |
|--------------|----------|-------------|-------------------------------|-----------------------|
| In Stock     | 2 074    | 24-48 hours | <a href="#">Contact Sales</a> | <a href="#">Buy</a>   |

\* Prices are shown in United States dollars and are for budgetary use only for volume of 1ku

| PACKAGING/ORDERING                    |   |
|---------------------------------------|---|
| Package                               | SSOP  |
| No. of Pins                           | 28  |
| Package Dimensions                    | 408 L x 0 H x 210 W (Mils)                    |
| Package Weight                        | 229.90 (mgs)                                  |
| Package Cross Section Drawing         | <a href="#">Download</a>                      |
| Package Carrier                       | TUBE  |
| Package Carrier Drawing / Orientation | <a href="#">Drawing , Package Orientation</a> |
| Standard Pack Quantity                | 235   |
| Minimum Order Quantity (MOQ)          | 235   |
| Order Increment                       | 235   |
| Estimated Lead Time (days)            | 91  |
| HTS Code                              | 8542.31.0001                                  |
| ECCN                                  | None  |
| ECCN Suball                           | EAR99   |

| QUALITY AND ROHS  |  |
|---|--|
| Moisture Sensitivity Level (MSL)  | 3  |
| Peak Reflow Temp. (°C)  | 260 ( <a href="#">Cypress Reflow Profile</a> )         |
| RoHS Compliant  | <a href="#">Y Print RoHS Certificate of Compliance</a> |
| PB Free   | Y  |
| Lead/Ball Finish  | Ni/Pd/Au   |
| Marking   | <a href="#">Cypress Marking Format</a>                 |
| <b>Package Material Declaration</b>   |  |
| <a href="#">28L - SSOP Pb-Free Package Material Declaration Datasheet</a> <i>Last Update: Jul 10, 2018</i>  |  |
| <b>IPC 1752 Material Declaration</b>  |  |
| <a href="#">IPC1752 MATERIAL DECLARATION SSOP 28 (SP28) - AMKOR NIPDAU - AU WIRE</a> <i>Last Update: Oct 13, 2016</i>                               |  |
| <a href="#">IPC1752 MATERIAL DECLARATION SSOP 28 (SP28) - AMKOR PURE SN - AU WIRE</a> <i>Last Update: Oct 13, 2016</i>                              |  |
| <a href="#">IPC1752 MATERIAL DECLARATION SSOP 28 (SP28) - CML NIPDAU - AU WIRE</a> <i>Last Update: Oct 13, 2016</i>                                 |  |
| <a href="#">IPC1752 MATERIAL DECLARATION SSOP 28 (SP28) - OSET PURE SN - AU WIRE</a> <i>Last Update: Oct 13, 2016</i>                               |  |
| <b>Device Qualification Reports</b>   |  |
| FIT/MTBF, ESD (HBM/CDM) and Latch-up data available in the Device Qualification Report.   |  |
| <a href="#">QTP#164011: Automotive CY8C21x34 PSoC1 Device Family S4AD-5 Technology, HHGrace Fab3.pdf</a> <i>Last Update: Jul 18, 2018</i>           |  |
| <a href="#">QTP 102802: PSoC DEVICE FAMILY (CY8C21X12) AUTOMOTIVE TECHNOLOGY S4AD-5, FAB4 QUALIFICATION REPORT</a> <i>Last Update: Sep 20, 2016</i> |  |

| TECHNICAL DOCUMENTS  |
|--|
| <b>Application Notes (27)</b><br><a href="#">AN52491 - Implementing Ambient Light Sensing Using PSoC® 1</a> Mar 19, 2018<br><a href="#">AN60486 - PSoC® 1 M8C ImageCraft C Code Optimization</a> Mar 06, 2018<br><a href="#">AN73212 - Debugging with PSoC® 1</a> Mar 05, 2018<br><a href="#">AN75320 - Getting Started with PSoC® 1</a> Mar 02, 2018<br><a href="#">Show More ▼</a> |
| <b>Product Change Notice (PCN) (5)</b><br><a href="#">PCN183601</a> Sep 10, 2018<br><a href="#">PCN171504B</a> Nov 30, 2017<br><a href="#">APCN155371</a> Nov 09, 2017<br><a href="#">Planned Qualification of Spansion Manufacturing Sites for Cypress Products</a><br><a href="#">PCN171504</a> Oct 11, 2017<br><a href="#">Show More ▼</a>  |
| <b>Product Information Notice (PIN) (1)</b><br><a href="#">PIN145277</a> Nov 06, 2017<br><a href="#">Changes to Cypress Address Labels</a>   |

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## CORPORATE HEADQUARTERS

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## CUSTOMER SERVICE SUPPORT

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Hours:  
8:00AM - 5:00PM (local  
time)  
Create a MyCase  
Cypress Developer  
Community

## INTERNATIONAL SUPPORT

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4736  
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