

VA10820 Radiation Hardened OBC / C&DH Board and Reference Design Kit RH-OBC-1



Pumpkin CubeSat Kit Bus compatible On Board Computer (OBC) / Command & Data Handling (C&DH) board using radiation hardened components and radiation effects mitigated design. CubeSat form factor design.

BOARD FEATURES

- Evaluation Board comprising of PCB and Board Support Package
 - All critical components are radiation-hardened
 - CAN and UART-to-USB have radiation mitigation protection circuits
 - PCB dimensions are CubeSat form factor
 - Pumpkin CubeSat Kit Bus compatible (PC104 connector interface)
 - VA10820 ARM Cortex-M0 microcontroller
 - Two Cypress 256KByte FRAMs (CYPT15B102 and FM25V20A)
 - Cypress 32M Byte Serial NOR Flash (CYRS16B256)
 - Intersil Supervisor IC (ISL706A)
 - Intersil LDO regulators (ISL7502S)
 - Cobham Aeroflex 14-bit SAR ADC (RHD5950)
 - Standard CubeSat connectors
 - PC104 (CubeSat Kit Bus)
 - Remove-Before-Flight switch
 - EPS board pre-flight power connector
 - JTAG connector
 - CAN connector
 - USB type B connector

KEY MCU FEATURES

- VA10820 32-bit ARM® Cortex®-M0 MCU
 - Manufactured with HARDSIL® technology
 - Clock rate up to 50MHz
 - 32KB on-chip data SRAM
 - 128KB on-chip program memory SRAM
 - 24 general purpose counter / timers
 - 56 General purpose I/O (GPIO) pins
 - 2 x UARTs
 - 3 SPIs (two master / slave, one master only)
 - 2 x I2Cs
 - Error Detection and Correction (EDAC) and scrub engine for memory protection
 - TMR (Triple Modular Redundancy) on internal logic

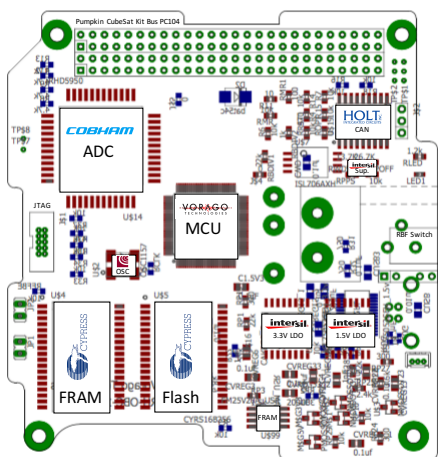
REFERENCE DESIGN SUPPORT

- PCB layout files
- VA10820 firmware source code
- Schematic diagram
- Bill of materials

AVAILABLE FROM



FDK SUPPORT AVAILABLE FROM

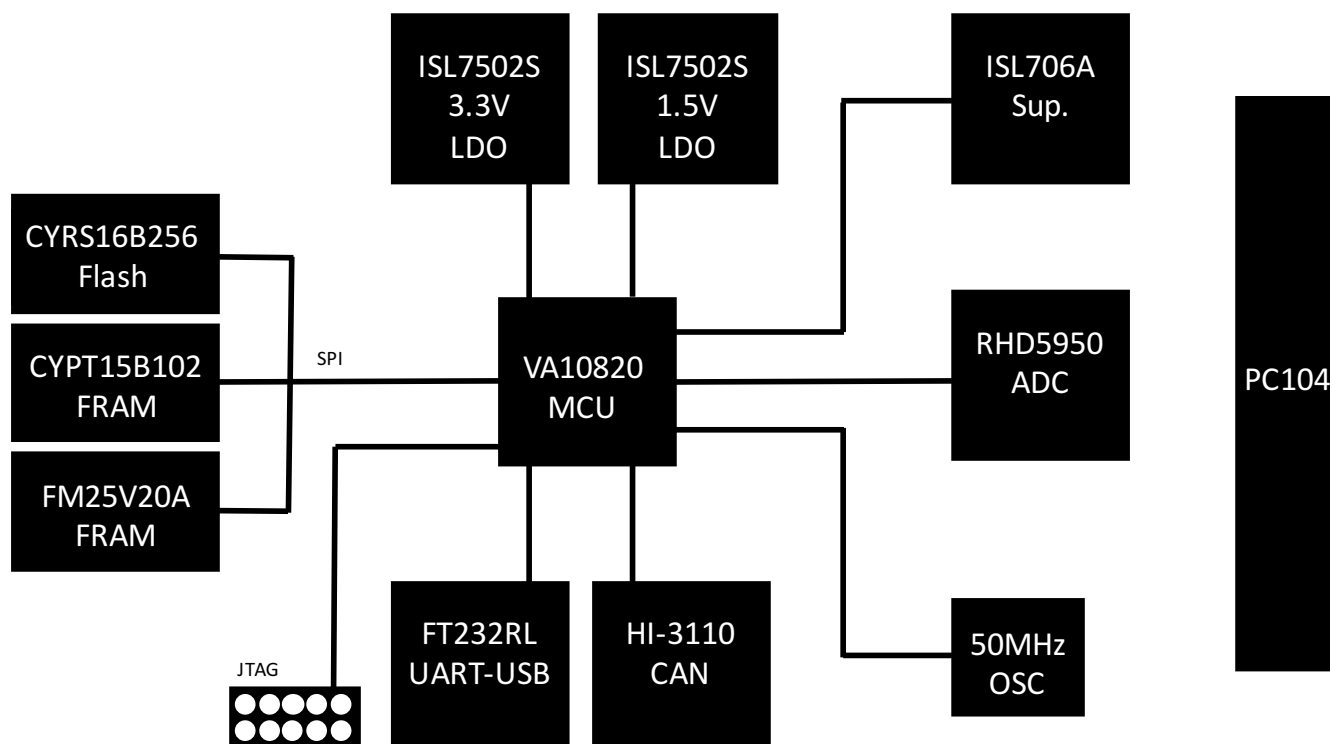


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DEVELOPMENT BOARD ORDERING INFORMATION

Description	Part number	Features
OBC / C&DH Board & Ref Design Kit	RH-OBC-1	VA10820 On Board Computer (OBC) / Command and Data Handling (C&DH) board for CubeSats.

RH-OBC-1 DEVELOPMENT BOARD BLOCK DIAGRAM



For more information, contact below or visit our web site at www.voragotech.com
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