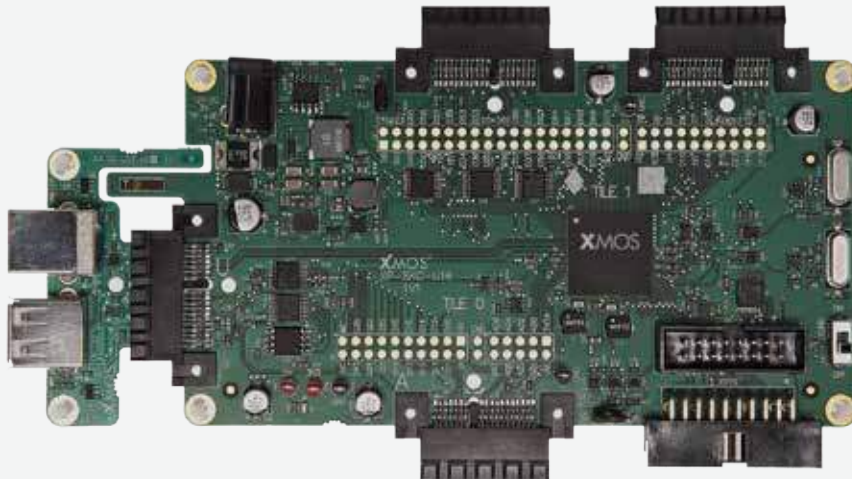# xCORE-USB sliceKIT

## MODULAR DEVELOPMENT SYSTEM KIT



### FEATURES

- Flexible core board
  - 1000MIPS 16-core multicore microcontroller with 128KB SRAM (XS1-U16-128)
  - Three I/O slots for sliceCARDs
    - Two digital slots
    - One mixed signal slot

- High Speed USB Device

- Full Speed USB Host

- Includes USB A/B sliceCARD, Mixed Signal sliceCARD and xTAG-2 debug adaptor

- xSOFTip library components and demos to get you started quickly and easily

- Supported by xTIMEcomposer software tools including xSOFTip Explorer

The xCORE-USB sliceKIT contains everything you need to start developing USB applications on the powerful xCORE™ multicore microcontrollers from XMOS.  The xCORE-USB sliceKIT features our 16-core High Speed USB device (XS1-U16-128) which delivers the deterministic, responsive processing required to handle a variety of peripheral interfaces, data processing and control tasks.

The kit includes USB slice card with USB A and USB B connectors, which works with xCORE-USB integrated High Speed USB 2.0 phy. Our sliceKIT product range includes a wide variety of other I/O boards (sliceCARD), making it easy to rapidly develop systems.

Application development is supported by our xSOFTip library, which is seamlessly integrated into xTIMEcomposer Studio. Pre-built demos include an HID demo and a high speed bulk endpoint for custom USB applications.

XMOS makes developing complex applications simple. sliceKIT gives you the opportunity to rapidly explore the application possibilities, and enables you to realize your designs quickly.

# CONTENTS

## xCORE-USB sliceKIT core board

The board provides the xCORE-USB MMCU with power, clocking, debug and expansion slots for two digital I/O slices and one slice with ADC inputs. The xTAG-2 debug adapter connects to the host via USB 2.0 and provides pins for JTAG control, system reset, processor debug, one duplex UART link and one duplex serial XMOS Link.
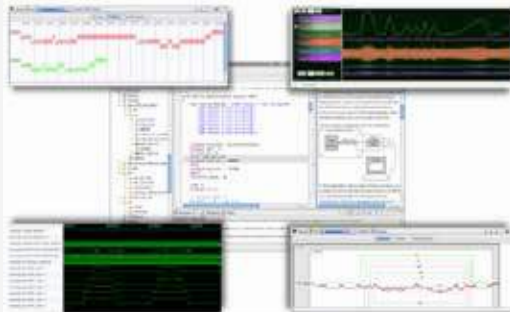




## USB A/B sliceCARD

- USB A and USB B connectors
- Works with xCORE-USB integrated High Speed USB 2.0 phy

## Mixed Signal sliceCARD

- 2 channel joystick via integrated ADC
- LDR and Thermistor
- 4 spare analog input pins
- 2 channel analog output via PWM





## xTIMEcomposer Development Tools

- Eclipse based IDE
  - LLVM Compiler with multicore support
  - GDB based Debugger
  - Cycle accurate simulator
  - xSCOPE Software Logic Analyzer
  - Static Timing Analyzer
- xSOFTip software library

## ORDERING INFORMATION:

For a list of XMOS distributors, please visit www.xmos.com/support/distributors.

| Part number | Contents |
|---|---|
| XK-SK-U16-ST | XS1-U16 core board, USB A/B sliceCARD, Mixed-Signal sliceCARD, xTAG-2 debug adapter and 12v PSU |