AVR Studio 5: Release 5.0

Welcome to the AVR Studio 5

AVR Studio 5 is the new integrated development environment from Atmel. It provides you a modern and powerful environment for doing AVR development. All 8-bit and 32-bit microcontrollers are supported.

Get started by exploring the included example projects. Run your solution on a starter or evaluation kit. Program and debug your project with the included simulator, or use one of the powerful on-chip debugging and programming tools from Atmel. Get productive with the various navigate, refactor and intellisense features in the included editor. Experience seamless integration with various Atmel WEB services like Atmel Video Lounge, Atmel Store and datasheets to keep you updated and help you to design your solutions.

With strong extension possibillities and online gallery, it is possible for both designers and 3rd party to provide plug-ins and customize the environment for best use and productivity.

AVR Studio 5 carries and integrates the AVR GCC toolchain, AVR Software framework, assembler and simulator. All newest Atmel tools are supported including AVR ONE!, JTAGICE mkII, JTAGICE3, STK500, STK600, QT600, AVRISP mkII and AVR Dragon.

For a detailed list of supported devices and tools please see the *Supported Devices* chapter.

8/32-bit AVR Microcontrollers

Release 5.0

Installation Instructions

System Requirements

Supported Operating Systems

- Windows XP (x86) with Service Pack 3 - all editions except Starter Edition
- Windows Vista (x86) with Service Pack 1 - all editions except Starter Edition
- Windows XP (x64) with Service Pack 2
- Windows Vista (x64) with Service Pack 1,
- Windows 7 (x86 and x64)
- Windows Server 2003 R2 (x86 and x64)

Hardware Requirements:

- Computer that has a 1.6GHz or faster processor
- 1 GB RAM for x86
- 2 GB RAM for x64
- An additional 512 MB RAM if running in a Virtual Machine
- 3GB of available hard disk space
- 5400 RPM hard disk drive
- DirectX 9-capable video card that runs at 1024 x 768 or higher display resolution

Downloading and installing

- Download the latest AVR Studio 5.0 installer.
- Verify the hardware and software requirements from "System Requirements" section.
- If you have AVR Studio 5.0 BETA installed, it should be uninstalled before installing the release version.
- Make sure you are logged on with Administrative privileges.
- Please save all your work before starting, because the installation might prompt you for a restart if required.
- Please disconnect all Atmel USB hardware devices.
- Double click the installer executable file. Please note that this might take some time to extract depending on H/W configuration.
- AVR Studio Prerequisites installation will start. NOTE : If you have all the prerequisites already installed then this dialog will not be shown.
  - If .NET Framework 4.0 is not already installed, the installer will start the .NET Framework setup.
  - Accept the licence agreement and proceed through the installation. If the installer prompts for restart please do so. After restart the installation will start automatically.
- If Visual Studio Isolated shell 2010 is not installed, the installer will start the Shell Setup.
  - Accept the licence agreement and proceed through the installation.
- If Jungo USB Driver v10.2 is not already installed the installer will start the Jungo installation.
  - Accept the licence agreement and proceed through the installation.
  - NOTE : If Jungo driver is already present and its version is anything less than v10.2, then the installer will update the Jungo driver you already have. The Jungo v10.2 is fully compatible with its previous versions. So AVR Studio 4 and Studio 32 should continue to work with the updated driver without any issues.
- After this , AVR Studio 5.0 installation should start
- Click “Next” to continue.
- Accept the licence agreement and continue.
- Choose the “Destination Directory to Install” and click “Next”.
- Choose the list of optional components to install and click “Next”.

- Review the summary and click “Install”.
- The installation will copy all files and prompt to click “Finish”.

FAQ

1. **Will AVR Studio 5.0 work in parallel with AVR Studio 4.0 and AVR32 Studio ?**
   - YES, it will work. Note : When you are uninstalling AVR Studio 4.0 or AVR32 Studio please be careful when you manually delete folders or registry entries after uninstall, as there might be other keys and folders deployed by AVR studio 5.0 inside Atmel folder and registry paths.
2. **I have AVR Studio 4 in my PC. When installing AVR Studio 5.0 it updated the Jungo USB driver to v10.2. Will AVR Studio 4 still work ?**
   - YES, it will work. If Jungo driver is already present and its version is anything less than v10.2, then the installer will update the Jungo driver you already have. The Jungo v10.2 is fully compatible with its previous versions. So AVR Studio 4 and Studio 32 should continue to work with the updated driver without any issues.
3. **When installing, more than 20 mn without other message than : “AVR Studio5 requires the following items to be installed on your computer. Progress bar is running but no indication about real progress**
   - If you have network connectivity that is limited (no internet connectivity), please disconnect the network or disable all the active network adapters and start installation of AVR Studio 5.0.
4. **Installer crashes when trying to install from "runas" option in Windows Xp (any architecture) with "Protect my data option enabled"**
   - Don't use "runas" option with "Protect....." enabled. The installer will have only read-only access to some of the registry hives and system folders, causing it to crash. Refer http://blogs.msdn.com/b/aaron_margosis/archive/2004/09/10/227727.aspx.
5. **AVR Studio 5 didn't find tools after uninstalling AVR Studio 4.**
   - The AVR Studio 4 installer uninstalls the Jungo USB Driver which is shared by AVR Studio 5. So please get the Jungo Driver and install it. Repairing the AVR Studio 5 installation might not install Jungo USB Driver.
6. **AVR Studio 5 will not start if Visual Studio 2010 SP1 is installed in the PC**
   - The Visual studio 2010 SP1 installer patches some of the Isolated shell binaries and thus making it incompatible with Isolated Shell based applications. So to make both work, Uninstall Visual Studio Isolated Shell 2010 and Visual Studio 2010 SP1. Then Install VS 2010 SP1 and then install the AVR Studio 5.0 with Visual Studio Isolated Shell 2010. (Caution : Some of the Visual Studio features might break.
7. **AVR Studio 5.0 didn't show any tools when Norton Antivirus is running**
   - AVR Studio 5.0 might not show any connected tools if Notron Antivirus is running. TO make it work add avrdbg.exe as an exception to Nortan antivirus allowed programs. This is the same with any antivirus program that by default blocks ports. This is also seen with ThreatFire antivirus.
8. **Windows shows a message box with the following message when attempting to run AVR Studio 5.0 installer**
   - " Windows cannot access the specified device, path or file. You may not have the appropriate permissions to access the item. "
     Resolution : Virus protection package called Sophos running on the network might block the installation of the AVR Studio 5.0 software. Disable the Sophos service running on the machine, and attempt installation.”
9. **After installing AVR Studio 5.0 in Windows XP and launching AVR Studio 5.0 throws the following error. "This application has failed to start because MSVCR100.dll was not found. Re-installing the application may fix this problem."**
   - This probably means that your PC doesn't have Windows XP SP3. Please install SP3 and try re-installing AVR Studio 5.0
10. **AVR Studio takes a very long time to start on my pc, but runs well in a VM environment**
    - Visual Studio shell (and thus AVR Studio 5) uses WPF as a graphics library and does a lot of processing in the GUI thread. WPF has support for HW acceleration. Some graphics card drivers does not utilize this well and spends time in kernel space even when no graphics update is required. Installing the latest graphics driver may give a performance boost.

11. **Verification and programming often fails a with a serial port buffer overrun error message when using STK500**
    - This is a known issue. Interrupt interrupt-DPC latency for serial communication may be disrupted by other drivers, thus causing buffer overruns on the UART chipset. A workaround which works for most systems is to use an USB to serial adapter.

New and Noteworthy

AVR Studio 5 Release

- Update AVR Software Framework (ASF) to version 2.5.1
- Update AVR Toolchain to version 3.2.3
- Simulator support added for several new tiny and mega devices
- More than 90 bugfixes/enhancements

AVR Studio 5 beta 2

- Support for STK500
- Import AVR32 Studio projects
- Integration of AVR QTouch Studio
- Display STK600 card stack
- Update AVR Software Framework (ASF) to version 2.4.0
- Update AVR Toolchain to version 3.2.1
- Simulator support added for several new tiny and mega devices
- More than 100 bugfixes/enhancements

Notable bugs fixed

- **Issue #14200:**

AVR Studio 5 crashes when viewing disassembly

- **Issue #13941:**

EEPROM verification fails when program modifies EEPROM

- **Issue #13711:**

AVR ISPmkII: Adjusting ISP clock is confusing

- **Issue #14207:**

An installation of Visual Studio 2008 may be broken after AVR Studio 5 is installed on the same machine. A workaround for this is to: Call regsvr32 on all of the DLL's in both "C:\Program Files \Common Files\Microsoft Shared\VS7Debug" (and "C:\Program Files (x86)\Common Files\Microsoft Shared\VS7Debug." if you are running Vista x64).

Known issues

- **Issue #14234:**

AVR Studio 5 implements general stepping algorithms that support code generated by multiple compilers. As a result, stepping in source code can sometimes be slow. This will be addressed in an upcoming release.

- **Issue #14334:**

When selecting an emulator as debugger in the Debugging page in the Project Options, pure programming interfaces (ISP/HVSP/HVPP) cannot be selected as physical interface.

- **Issue #12382:**

Conditional and Hit count breakpoints works only for simulator

- **Issue #12611:**

If you have network connectivity that is limited (no internet connectivity), please disconnect the network or disable all the active network adapters and before starting installation of AVR Studio 5.0.

- **Issue #12765:**

Breakpoint is not updating in the Disassembly and Code view. Set breakpoint in disassembly view and verify from code view, this is working. But random switching between the windows some time and erasing the breakpoint from the disassembly view is not working correctly.

- **Issue #12875:**

The following ASF modules are not available as standalone in the "Select Drivers from the ASF" menu, but only as examples: XMEGA Sleep Manager and ADC driver, AVR UC3 USB Stack from ASF v1, ECC Hamming, TLV320AIC23B codec,FAT file system with play list support, Joystick interface (5-way), MEMORY - EBI SDRAM Controller, MEMORY - MCI - MultiMedia Card Interface, MEMORY - SD/MMC card access using MCI, MEMORY - SD/MMC card access using SPI, MEMORY - NAND Flash on EBI, MEMORY - AT45DBX DataFlash, TOUCH - AT42QT1060 QTouch 6-channel sensor,

MEMS Sensors - Accelerometer LIS3L06AL, TIMING - CS2200 Clock Synthesizer, LodePNG, FreeRTOS minimal, lwIP, Micrium uC/OSII, H&D Wi-Fi SPB Firmware Download.

- **Issue #13162:**

Windows XP: Right clicking and choose "run as" may crash the installer.

- **Issue #13226:**

Incorrect number of GPIO ports may be displayed for UC3 devices in I/O view.

- **Issue #13517:**

The asf.h header file is not included in all examples.

- **Issue #13524:**

ISPmkII: Wrong error message when read device ID fails in ISP mode.

- **Issue #13667:**

Start new instance when debugging is not working

- **Issue #13767:**

AVR Studio 5 does not properly handle that the JTAGICE3 is disconnected from the target device or that the target power is switched off.

- **Issue #13774:**

UC3 parts have global security fuse that is not present in any programming configuration.

- **Issue #13834:**

XMEGA PDI mode on Dragon does not work for the following parts: A3/D3 - rev B

- **Issue #13856:**

Code completion doesn't work if tilde (~) precedes the symbol that should be completed.

- **Issue #13858:**

Using Chinese letters in file path in programming dialog is not fully supported.

- **Issue #13888:**

The programming dialog in AVR Studio 5 does not support readout of OSCCAL and programming of a user-specified value into a specific flash or EEPROM location.

- **Issue #13899:**

Mapped network drives do not appear in Project Location window when creating a new project.

- **Issue #14053:**

Stepping out of function takes time with 8-bit devices

- **Issue #14101:**

The interface settings has to be verified through "Debugging" project properties page before debug launch, otherwise debug session might fail with incompatible device, tool and interface settings.

- **Issue #14106:**

While debugging code on AT90CAN32, AT90CAN64, AT90CAN128 devices it is not possible to view or modify the contents of the CAN mailbox.

- **Issue #14150:**

Single stepping code which includes software reset is not supported for Xmega devices.

- **Issue #14163:**

The contents of the user page in the UC3 flash memory (e.g. address 0x80800000 for UC3-A3 and UC3-L0) cannot be displayed during debugging.

- **Issue #14186:**

Displaying the call stack during debugging is not supported for 8-bit AVR devices.

- **Issue #14193:**

Projects which include paths with non-Latin characters are not supported.

- **Issue #14201:**

Entering debugmode on ATMega128RFA1 sometimes fail when CKDIV8 fuse is set, even if JTAG clock is below 250KHz. To enter debug mode, disable the CKDIV8 fuse and try again.

- **Issue #14252:**

The JTAGICE3 will fail to launch if the "Use external reset" option is enabled in a project's debug settings.

- **Issue #14308:**

When entering a debug session on a debugwire target in ISP mode on JTAGICE3 it is necessary to cycle power on both target and emulator to succeed.

- **Issue #12155:**

"webproperties.tlb could not be located" message is displayed on some systems. workaround: copy a webproperties???.tlb file from "C:\Program Files (x86)\Common Files\microsoft shared\MSEnv" to the same folder and rename it to webproperties.tlb

- **Issue #13429:**

Internet Explorer 6 does not show user documentation correctly

- **Issue #9879:**

The installer does not respond to canceling

- **Issue #13207:**

Some example projects may not debug properly. Please check what optimization level is set and adjust to -O0 to have full debug support.

- **Issue #13275:**

The assembler project types and editor only applies to the 8-bit devices.

- **Issue #13646:**

UC3A-ES and UC3B-ES devices are code incompatible with later revisions (non ES) of the same device. AVR Studio 5 is not able to detect that such a device is attached, and thus not able to provide a warning to the user.

- **Issue #13703:**

User signature row support and production signature row support is not currently supported.

Supported Devices

The following tables lists all supported tools and devices and shows which tools support debugging and programming of the various devices.

We have three kinds of support. "Control" support means that the device can only be programmed and controlled through the target context menu. By "debug" we mean a starting a debugging session through the launch mechanism and that the target context menu can be used. Similarily "run" means programming and starting the application through the launch mechanism (but no debugging). "Full" means that all these kinds are supported.

Required firmware versions

Debugger/programmer	Firmware version
AVR Dragon	7.e
AVRISP mkII	1.e
AVR ONE!	5.d
JTAGICE3	1.16
JTAGICE mkII	7.d
QT600	1.9
STK500	2.10
STK600	2.14

AVR Mega

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
AT90CAN128	Full	Control	Full	Full	Full				Full
AT90CAN32	Full	Control	Full	Full	Full				Full
AT90CAN64	Full	Control	Full	Full	Full				Full
AT90PWM1	Full	Control	Full	Full	Full				Full
AT90PWM216	Full	Control	Full	Full	Full				Full
AT90PWM2B	Full	Control	Full	Full	Full				Full
AT90PWM316	Full	Control	Full	Full	Full				Full
AT90PWM3B	Full	Control	Full	Full	Full				Full
AT90PWM81	Full	Control	Full	Full	Full				Full
AT90USB1286	Full	Control	Full	Full	Full				Full
AT90USB1287	Full	Control	Full	Full	Full				Full
AT90USB162	Full	Control	Full	Full	Full				Full
AT90USB646	Full	Control	Full	Full	Full				Full
AT90USB647	Full	Control	Full	Full	Full				Full
AT90USB82	Full	Control	Full	Full	Full				Full
ATmega128	Full	Control	Full	Full	Full		Full		Full
ATmega1280	Full	Control	Full	Full	Full		Full		Full
ATmega1281	Full	Control	Full	Full	Full		Full		Full
ATmega1284	Full	Control	Full	Full	Full		Full		Full
ATmega1284P	Full	Control	Full	Full	Full		Full		Full
ATmega128A	Full	Control	Full	Full	Full		Full		Full

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
ATmega128RFA1	Full	Control	Full	Full	Full				Full
ATmega16	Full	Control	Full	Full	Full		Full	Control	Full
ATmega162	Full	Control	Full	Full	Full				Full
ATmega164A	Full	Control	Full	Full	Full		Full		Full
ATmega164P	Full	Control	Full	Full	Full		Full		Full
ATmega164PA	Full	Control	Full	Full	Full		Full		Full
ATmega165A							Full		
ATmega165P	Full	Control	Full	Full	Full		Full		Full
ATmega165PA							Full		Full
ATmega168	Full	Control	Full	Full	Full		Full	Control	Full
ATmega168A	Full	Control	Full	Full	Full		Full	Control	Full
ATmega168P	Full	Control	Full	Full	Full		Full	Control	Full
ATmega168PA	Full	Control	Full	Full	Full		Full	Control	Full
ATmega169A	Full	Control	Full	Full	Full		Full		Full
ATmega169P	Full	Control	Full	Full	Full		Full		Full
ATmega169PA	Full	Control	Full	Full	Full		Full		Full
ATmega16A	Full	Control	Full	Full	Full		Full	Control	Full
ATmega16HVB	Full	Control	Full	Full	Full		Full		Full
ATmega16M1	Full	Control	Full	Full	Full				Full
ATmega16U2	Full	Control	Full	Full	Full				Full
ATmega16U4	Full	Control	Full	Full	Full				Full
ATmega2560	Full	Control	Full	Full	Full		Full		Full
ATmega2561	Full	Control	Full	Full	Full		Full		Full
ATmega32	Full	Control	Full	Full	Full		Full	Control	Full
ATmega324A	Full	Control	Full	Full	Full		Full	Control	Full
ATmega324P	Full	Control	Full	Full	Full		Full	Control	Full
ATmega324PA	Full	Control	Full	Full	Full	Full	Full	Control	Full
ATmega325	Full	Control	Full	Full	Full		Full		Full
ATmega3250	Full	Control	Full	Full	Full		Full		Full
ATmega3250A		Control					Full		Full
ATmega3250P	Full	Control	Full	Full	Full		Full		Full
ATmega3250PA	Full		Full	Full	Full		Full		Full
ATmega325A	Full		Full	Full	Full		Full		Full
ATmega325P	Full	Control	Full	Full	Full		Full		Full
ATmega325PA	Full		Full	Full	Full		Full		Full
ATmega328	Full	Control	Full	Full	Full		Full		Full
ATmega328P	Full	Control	Full	Full	Full		Full		Full
ATmega329	Full	Control	Full	Full	Full		Full		Full
ATmega3290	Full	Control	Full	Full	Full		Full		Full
ATmega3290A		Control					Full		Full

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
ATmega3290P	Full	Control	Full	Full	Full		Full		Full
ATmega3290PA	Full		Full	Full	Full		Full		Full
ATmega329A	Full	Control	Full	Full	Full		Full		Full
ATmega329P	Full	Control	Full	Full	Full		Full		Full
ATmega329PA	Full	Control	Full	Full	Full		Full		Full
ATmega32A	Full	Control	Full	Full	Full		Full	Control	Full
ATmega32HVB	Full	Control	Full	Full	Full		Full		Full
ATmega32M1	Full	Control	Full	Full	Full				Full
ATmega32U2	Full	Control	Full	Full	Full				Full
ATmega32U4	Full	Control	Full	Full	Full				Full
ATmega48	Full	Control	Full	Full	Full		Full	Control	Full
ATmega48A	Full	Control	Full	Full	Full		Full	Control	Full
ATmega48P	Full	Control	Full	Full	Full		Full	Control	Full
ATmega48PA	Full	Control	Full	Full	Full		Full	Control	Full
ATmega64	Full	Control	Full	Full	Full		Full		Full
ATmega640	Full	Control	Full	Full	Full		Full		Full
ATmega644	Full	Control	Full	Full	Full		Full		Full
ATmega644A	Full	Control	Full	Full	Full		Full		Full
ATmega644P	Full	Control	Full	Full	Full		Full		Full
ATmega644PA	Full	Control	Full	Full	Full		Full		Full
ATmega645	Full	Control	Full	Full	Full		Full		Full
ATmega6450	Full	Control	Full	Full	Full		Full		Full
ATmega6450A	Full	Control	Full	Full	Full		Full		Full
ATmega6450P	Full	Control	Full	Full	Full		Full		Full
ATmega645A							Full		
ATmega645P		Control					Full		Full
ATmega649	Full	Control	Full	Full	Full		Full		Full
ATmega6490	Full	Control	Full	Full	Full		Full		Full
ATmega6490A	Full	Control	Full	Full	Full		Full		Full
ATmega6490P		Control					Full		Full
ATmega649A	Full	Control	Full	Full	Full		Full		Full
ATmega649P	Full	Control	Full	Full	Full		Full		Full
ATmega64A	Full	Control	Full	Full	Full		Full		Full
ATmega64M1	Full	Control	Full	Full	Full				Full
ATmega8		Control					Full	Control	Full
ATmega8515	Full	Control						Control	Full
ATmega8535		Control							Full
ATmega88	Full	Control	Full	Full	Full		Full	Control	Full
ATmega88A	Full	Control	Full	Full	Full		Full	Control	Full
ATmega88P	Full	Control	Full	Full	Full		Full	Control	Full

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
ATmega88PA	Full	Control	Full	Full	Full		Full	Control	Full
ATmega8A		Control					Full	Control	Full
ATmega8U2	Full	Control	Full	Full	Full				Full

AVR Tiny

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
ATtiny10		Control					Full		Full
ATtiny13	Full	Control	Full	Full	Full		Full	Control	Full
ATtiny13A	Full	Control	Full	Full	Full		Full	Control	Full
ATtiny1634	Full	Control	Full	Full	Full		Full		Full
ATtiny167	Full	Control	Full	Full	Full				Full
ATtiny20		Control					Full		Full
ATtiny2313	Full	Control	Full	Full	Full		Full		Full
ATtiny2313A	Full	Control	Full	Full	Full		Full		Full
ATtiny24	Full	Control	Full	Full	Full		Full		Full
ATtiny24A	Full	Control	Full	Full	Full		Full		Full
ATtiny25	Full	Control	Full	Full	Full		Full		Full
ATtiny26	Full	Control					Full		Full
ATtiny261	Full	Control	Full	Full	Full		Full		Full
ATtiny261A	Full	Control	Full	Full	Full		Full		Full
ATtiny28	Full								Full
ATtiny4		Control					Full		Full
ATtiny40		Control					Full		Full
ATtiny4313	Full	Control	Full	Full	Full		Full		Full
ATtiny43U	Full	Control	Full	Full	Full		Full		Full
ATtiny44	Full	Control	Full	Full	Full		Full		Full
ATtiny44A	Full	Control	Full	Full	Full		Full		Full
ATtiny45	Full	Control	Full	Full	Full		Full		Full
ATtiny461	Full	Control	Full	Full	Full		Full		Full
ATtiny461A	Full	Control	Full	Full	Full		Full		Full
ATtiny48	Full	Control	Full	Full	Full		Full		Full
ATtiny5		Control					Full		Full
ATtiny84	Full	Control	Full	Full	Full		Full		Full
ATtiny84A	Full	Control	Full	Full	Full		Full		Full
ATtiny85	Full	Control	Full	Full	Full		Full		Full
ATtiny861	Full	Control	Full	Full	Full		Full		Full
ATtiny861A	Full	Control	Full	Full	Full		Full		Full
ATtiny87	Full	Control	Full	Full	Full				Full
ATtiny88	Full	Control	Full	Full	Full	Full	Full		Full
ATtiny9		Control					Full		Full

AVR UC3

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
AT32UC3A0128	Full		Full	Full	Full		Full		Full
AT32UC3A0256	Full		Full	Full	Full		Full		Full
AT32UC3A0512	Full		Full	Full	Full		Full		Full
AT32UC3A1128	Full		Full	Full	Full		Full		Full
AT32UC3A1256	Full		Full	Full	Full		Full		Full
AT32UC3A1512	Full		Full	Full	Full		Full		Full
AT32UC3A3128	Full		Full	Full	Full				Full
AT32UC3A3128S	Full		Full	Full	Full				Full
AT32UC3A3256	Full		Full	Full	Full				Full
AT32UC3A3256S	Full		Full	Full	Full				Full
AT32UC3A364	Full		Full	Full	Full				Full
AT32UC3A364S	Full		Full	Full	Full				Full
AT32UC3B0128	Full		Full	Full	Full				Full
AT32UC3B0256	Full		Full	Full	Full				Full
AT32UC3B0512	Full		Full	Full	Full				Full
AT32UC3B064	Full		Full	Full	Full				Full
AT32UC3B1128	Full		Full	Full	Full				Full
AT32UC3B1256	Full		Full	Full	Full				Full
AT32UC3B1512	Full		Full	Full	Full				Full
AT32UC3B164	Full		Full	Full	Full				Full
AT32UC3C0512C	Full		Full	Full	Full				Full
AT32UC3C1512C	Full		Full	Full	Full				Full
AT32UC3C2512C	Full		Full	Full	Full				Full
AT32UC3L016	Full		Full	Full	Full		Full		Full
AT32UC3L0256	Full		Full	Full	Full				Full
AT32UC3L032	Full		Full	Full	Full		Full		Full
AT32UC3L064	Full		Full	Full	Full	Full	Full		Full
ATUC128D3	Full		Full	Full	Full				Full

AVR Xmega

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
ATxmega128A1	Full	Control	Full	Full	Full	Full	Full		Full
ATxmega128A3	Full	Control	Full	Full	Full		Full		Full
ATxmega128D3	Full	Control	Full	Full	Full		Full		Full
ATxmega16A4	Full	Control	Full	Full	Full		Full		Full
ATxmega16D4	Full	Control	Full	Full	Full		Full		Full
ATxmega192A3	Full	Control	Full	Full	Full		Full		Full
ATxmega192D3	Full	Control	Full	Full	Full		Full		Full
ATxmega256A3	Full	Control	Full	Full	Full		Full		Full

	AVR Dragon	AVRISP mkII	AVR ONE!	JTAGICE3	JTAGICE mkII	QT600	Simulator	STK500	STK600
ATxmega256A3B	Full	Control	Full	Full	Full		Full		Full
ATxmega256D3	Full	Control	Full	Full	Full		Full		Full
ATxmega32A4	Full	Control	Full	Full	Full		Full		Full
ATxmega32D4	Full	Control	Full	Full	Full		Full		Full
ATxmega64A1	Full	Control	Full	Full	Full		Full		Full
ATxmega64A3	Full	Control	Full	Full	Full		Full		Full
ATxmega64D3	Full	Control	Full	Full	Full		Full		Full

Device Notes

Obsolete Devices

The following devices are supported by AVR Studio 4: ATtiny11, ATtiny12, ATtiny15, ATtiny22, AT90S1200, AT90S2313, AT90S2323, AT90S2343, AT90S4433, AT90S8515, AT90S8535, ATmega323, ATmega161 ATmega163, ATmega103, ATmega165, ATmega169, ATmega406, ATmega16HVA, ATmega16HVA2, ATmega64HVE, ATmega32U6, AT90PWM2, AT90PWM3, AT90SCR100, AT86RF401

Contact Information

For support on AVR Studio 5 please contact avr@atmel.com.

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