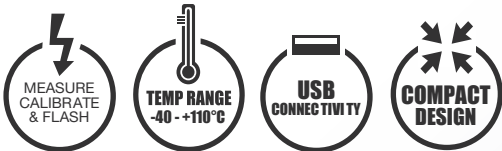
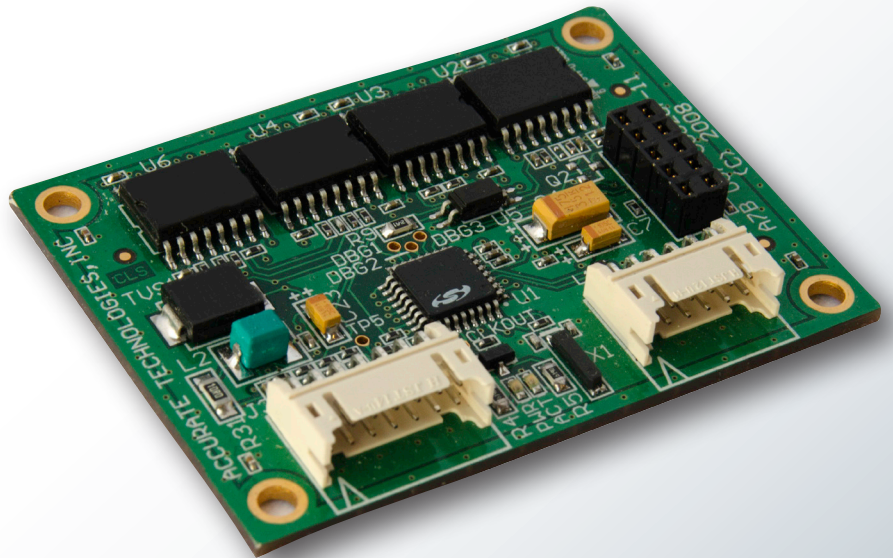


A7

ECU Serial Interface



A7 Modules are a family of USB devices that provide connectivity between a PC and an Electronic Control Unit (ECU). The A7 enables data acquisition, calibration, and flashing functionality to ECUs with supported microprocessors via a connection through the microprocessors debugger interface. Currently supported interfaces include JTAG, AUD, and RTD interfaces that provide Real-Time access to memory mapped resources.

Features

- Full support for ECU data acquisition, calibration and flashing
- Powered from PC via USB bus - no external power required
- Minimal current draw from target module
- Fully supported in ATI's VISION software



ATI creates a bespoke billet aluminum enclosure to enable A7 integration on space restricted ECU modules.



Minimize Processor Impact

Microprocessor Support Chart The A7 runs independently of the ECU processor, allowing modification of the ECU memory without interrupting the processor. Using the debugger interface provides the capability of acquiring data and flashing the ECU at a significantly higher rate than through the CAN bus. The CAN bus is thus freed up for other tasks, such as monitoring diagnostic information.

No Additional Hardware Required

The A7 provides all connectivity between the ECU and the PC so no extra hardware is required. It has an integral power supply and is powered by the PC USB connection. Minimal ECU power is required to activate the target side. The compact design of the A7 is perfect for in-vehicle applications where space is at a premium.

Microcontroller Family	Interface
Freescale	
MPC5xxx	JTAG Interface
S12x	JTAG Interface
Infineon	
TriCore TC17xx/TC2xx	OCDS Interface DAP2 Interface
Renesas	
V850	NBD Interface
SH2/SH2A	AUD/AUD II Interface
M32R	RTD and/or JTAG Interface
V850E2	JTAG Interface

Please contact your sales representative for specific part numbers.

A7 Serial Interface Specifications

Configuration	
Application interface	VISION Calibration and Data Acquisition Software
Indication	
LEDs	(2) Power and Activity status
Input/Output	
PC Interface	USB 1.1 full speed at 12 Mbps (connected directly to the PC)
ECU Interface	OCDS, Nexus, JTAG, AUD, RTD. Visit the ATI website for an up-to-date list.
ECU Connection	High temperature, shielded cable from the A7 to the ECU serial port
Connectors	Dependent upon the microprocessor
Operating Conditions	
Power Supply	Powered via the PC USB connection
Temperature Range	-40 °C to +110 °C / -40 °F to 230 °F
Warranty	30 days
Mechanical	
Construction	Conformal coated PCB without housing
Dimensions	PCB: 50.8 x 38.1 x 6.4 mm / 2 x 1.5 x 0.25 in
Weight	105 g / 3.70 oz

A7 Serial Interface Accessories

Part Numbers		
USB		
150-0066-12IN 150-0066-8FT	30.5cm/12in 2.4m/8ft	Cable; USB-A to LEMO 0B 5-pin plug
150-0118-4.3FT 150-0118-6.6FT 150-0118-8FT	1.31m/4.3ft 2m/6.6ft 2.44m/8ft	Cable; USB-A plug to LEMO 0F 5-pin plug
150-0181-8FT	2.44m/8ft	Cable; USB-A to LEMO 0B 5-pin plug shield connected
150-0182-8FT	2.44m/8ft	Cable; USB-A to LEMO 0F 5-pin plug shield connected
Internal		
150-0129-5IN	12.7cm/5in	Cable; USB LEMO 0B 5-pin socket to JST 12-pin plug
150-0159-5IN	12.7cm/5in	Cable; JST 12-pin plug to LEMO 0F 5-pin socket
150-0195-5IN	12.7cm/5in	Cable; 10-pin header to 16-pin OCDS

