

ACTEL Development Tools and FPGAs



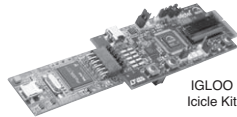
Programmable Logic Actel

Actel offers low-cost evaluation and starter kits as a quick and cost-effective way to assess low-power and mixed-signal FPGA technology without the expense and time needed to design a customized prototype board. Each kit includes Actel Libero® Integrated Design Environment (IDE) design software with a free Gold license, a FlashPro3-compatible programmer and user's guide, tutorial, sample designs, and board reference files. Actel offers evaluation, starter, and development kits for the following devices: IGLOO®, Fusion, ProASIC®3, ProASICPLUS®, and Xcelerator®. The company also offers its battery-powered IGLOO-based Iclicle Kit to demonstrate extended battery life for portable design.

IGLOO ICICLE EVALUATION KITS

IGLOO Development Kit Features:

- Low-power AGL125-QNG132
- Built-in USB rechargeable lithium-ion battery
- USB for Hyperterminal use via a USB-UART chip
- Green OLED 96x16 low-power display
- Three signal LEDs and a special Flash Freeze indicator LED



IGLOO Iclicle Kit

MOUSER STOCK NO.	Actel Part No.	Price Each
892-AGL-ICICLE-KIT	AGL-ICICLE-KIT	105.00
892-AGLN-Z-NANO-KIT	AGLN-Z-NANO-KIT	51.25
892-AGLP-EVAL-KIT	AGLP-EVAL-KIT	211.49
892-AGL-DEV-KIT-SCS	AGL-DEV-KIT-SCS	356.25
ARM® M1-enabled IGLOO Solutions		
892-M1AGL-DEV-KIT	M1AGL-DEV-KIT-SCS	356.25

ProASIC3 KITS

892-A3PE-PROTO-KIT	A3PE-PROTO-KIT	706.00
892-A3PE-BRD1500-SKT	A3PE-BRD1500-SKT	556.25
ARM M1-ENABLED ProASIC3 Solutions		
892-M1A3PL-DEV-KIT	M1A3PL-DEV-KIT-SCS	374.40

ProASICPLUS KITS

892-APA-ISP-DEMO	APA-ISP-DEMO	2138.00
892-APA-EVAL-BRD1	APA-EVAL-BRD1	168.00
892-APA-EVAL-KIT	APA-EVAL-KIT	312.50

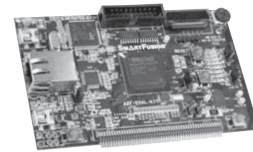
AXCELERATOR KIT

892-AX-EVAL-KIT	AX-EVAL-KIT	375.00
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SMARTFUSION EVALUATION KIT

Board Features:

- Ethernet interface
- USB port for power and HyperTerminal
- USB port for programming and debug
- J-Link header for debug
- Mixed-signal header
- SPI flash - off-chip memory
- Reset and 2 user switches, 8 LEDs
- POT for voltage/current monitor
- Temperature monitor
- Organic light-emitting diode (OLED)



NEW!
TECHNOLOGY

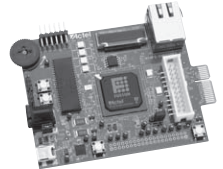
MOUSER STOCK NO.	Actel Part No.	Price Each
892-A2F-EVAL-KIT	A2F-EVAL-KIT	99.00
892-A2F-DEV-KIT	A2F-DEV-KIT	1062.50

FUSION KITS

Fusion Embedded Development Kit:

- M1AFS1500 device with dynamic, reconfigurable analog and flash memory
- 512 KB SRAM, 2 MB SPI flash memory on-board
- 10/100 Ethernet and I²C interfaces
- USB-to-UART connection for HyperTerminal
- Built-in temperature monitor and voltage potentiometer
- Blue OLED 96x16 pixel display
- FlashPro3 or RealView® debug interface

PRODUCT NEW

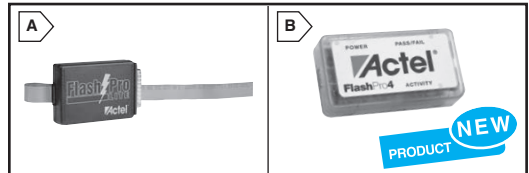


892-AFS-EVAL-KIT	AFS-EVAL-KIT	531.72
ARM M1-enabled Fusion Solutions		
892-M1AFSEMMBEDDEDKIT	M1AFS-EMBEDDED-KIT	199.00
892-M1AFSADV-DK-PWR	M1AFS-ADV-DEV-KIT-PWR	760.00

PROGRAMMING

FlashPro4 and FlashPro Lite are compact and cost-effective ways to program Actel flash devices. They eliminate incompatibility problems and expensive redesign costs, while offering faster time-to-market with their in-system programming (ISP) capability. All programmers can be controlled by the same easy-to-use GUI and connect to a PC through a USB port for FlashPro4 and a parallel port for FlashPro Lite. FlashPro4 supports IGLOO, ProASIC3 and Fusion devices and is powered from the USB port. FlashPro Lite only supports ProASICPLUS devices, and is powered from the target board.

MOUSER STOCK NO.	Actel Part No.	Fig.	Description	Price Each
892-FLASHPROLITE	FLASHPRO LITE	A	Supports ProASICPLUS devices and in-system programming	163.00
892-FLASHPRO4	FLASHPRO 4	B	Supports IGLOO, ProASIC3 and Fusion devices	50.00



IGLOO FPGAs

The industry's lowest power FPGAs at 5 μW

Ranging from 15,000 to 3,000,000 system gates, the award-winning flash-based IGLOO family delivers between 10x and 3000x lower static power than competitive programmable logic solutions. The Actel IGLOO family supports a 1.2 V to 1.5 V core voltage and enables quick and easy power control with flexible implementation options, including Flash Freeze mode, in which designers need not power off voltage to the device or stop clocks or I/Os. Further, the Flash Freeze pin enables designers to quickly and easily enter or exit the special low-power mode within 1 μs. The Actel IGLOO family offers up to 620 user I/Os, six phase-locked loops (PLLs), 504 Kbits of RAM and 250 MHz performance.

PRODUCT NEW



MOUSER STOCK NO.	Actel Part No.	Package Type	System Gates	Typical Equivalent Macrocells	VersaTiles (D-flip-flops)	RAM (1024 bits)	Max. User I/O	Single-Ended I/O	Differential I/O Pairs	Price Each	
										1	25
892-AGL015V2QNG68	AGL015V2-QNG68	QFN-68	15,000	128	384	—	49	49	—	5.47	4.97
892-AGL015V5QNG68	AGL015V5-QNG68	QFN-68	15,000	128	384	—	49	49	—	5.02	4.55
892-AGL030V2VQG100	AGL030V2-VQG100	VQFP-100	30,000	256	768	—	77	77	—	8.36	7.59
892-AGL030V2CSG81	AGL030V2-CSG81	PCSP-81	30,000	256	768	—	66	66	—	8.82	8.00
892-AGL030V2QNG132	AGL030V2-QNG132	QFPN-132	30,000	256	768	—	81	81	—	8.36	7.59
892-AGL030V2-UCG81	AGL030V2-UCG81	UCG-81	30,000	256	768	—	66	66	—	8.82	8.00
892-AGL030V5VQG100	AGL030V5-VQG100	VQFP-100	30,000	256	768	—	77	77	—	7.75	7.04
892-AGL030V5CSG81	AGL030V5-CSG81	PCSP-81	30,000	256	768	—	66	66	—	8.06	7.31
892-AGL030V5-UCG81	AGL030V5-UCG81	UCG-81	30,000	256	768	—	66	66	—	8.06	7.31
892-AGL060V2VQG100	AGL060V2-VQG100	VQFP-100	60,000	512	1,536	18	71	71	—	11.70	10.63
892-AGL060V5VQG100	AGL060V5-VQG100	VQFP-100	60,000	512	1,536	18	71	71	—	10.79	9.80
892-AGL125V2FGG144	AGL125V2-FGG144	FBGA-144	125,000	1,024	3,072	36	97	97	—	17.63	16.01
892-AGL125V2VQG100	AGL125V2-VQG100	VQFP-100	125,000	1,024	3,072	36	71	71	—	14.59	13.25
892-AGL125V2CSG196	AGL125V2-CSG196	PCSP-196	125,000	1,024	3,072	—	133	133	—	17.78	16.15
892-AGL125V2QNG132	AGL125V2-QNG132	QFPN-132	125,000	1,024	3,072	—	84	84	—	23.26	21.10
892-AGL125V5FGG144	AGL125V5-FGG144	FBGA-144	125,000	1,024	3,072	36	97	97	—	16.26	14.77
892-AGL125V5VQG100	AGL125V5-VQG100	VQFP-100	125,000	1,024	3,072	36	71	71	—	13.53	12.28
892-AGL125V5CSG196	AGL125V5-CSG196	PCSP-196	125,000	1,024	3,072	—	133	133	—	15.96	14.49
892-AGL125V5QNG132	AGL125V5-QNG132	QFPN-132	125,000	1,024	3,072	—	84	84	—	21.43	19.45
892-AGL250V2FGG144	AGL250V2-FGG144	FBGA-144	250,000	2,048	6,144	36	97	97	24	22.50	19.71
892-AGL250V2VQG100	AGL250V2-VQG100	VQFP-100	250,000	2,048	6,144	36	68	68	13	19.30	17.53
892-AGL250V2CSG196	AGL250V2-CSG196	PCSP-196	250,000	2,048	6,144	36	143	143	30	21.89	19.87
892-AGL250V5FGG144	AGL250V5-FGG144	FBGA-144	250,000	2,048	6,144	36	97	97	24	19.76	17.94
892-AGL250V5CSG196	AGL250V5-CSG196	PCSP-196	250,000	2,048	6,144	36	143	143	35	19.76	17.94
892-AGL400V2FGG144	AGL400V2-FGG144	FBGA-144	400,000	—	9,216	54	194	194	25	40.74	36.98
892-AGL400V5FGG256	AGL400V5-FGG256	FBGA-256	400,000	—	9,216	54	194	178	38	45.14	40.99
892-AGL400V5FGG484	AGL400V5-FGG484	FBGA-484	400,000	—	9,216	54	194	194	38	55.48	50.37
892-AGL600V2FGG144	AGL600V2-FGG144	FBGA-144	600,000	—	13,824	108	97	97	25	73.26	66.52
892-AGL600V2FGG256	AGL600V2-FGG256	FBGA-256	600,000	—	13,824	108	177	177	43	79.65	72.31
892-AGL600V2FGG484	AGL600V2-FGG484	FBGA-484	600,000	—	13,824	108	235	235	60	95.76	86.94
892-AGL1000V2FGG144	AGL1000V2-FGG144	FBGA-144	1,000,000	—	24,576	144	97	97	25	96.16	92.07
892-AGL1000V2FGG256	AGL1000V2-FGG256	FBGA-256	1,000,000	—	24,576	144	177	177	44	101.80	97.47
892-AGL1000V2FGG484	AGL1000V2-FGG484	FBGA-484	1,000,000	—	24,576	144	300	300	74	117.45	112.46
892-AGL1000V5FGG144	AGL1000V5-FGG144	FBGA-144	1,000,000	—	24,576	144	97	97	25	94.09	85.42
892-AGL1000V5FGG256	AGL1000V5-FGG256	FBGA-256	1,000,000	—	24,576	144	177	177	44	99.86	90.67
892-AGL1000V5FGG484	AGL1000V5-FGG484	FBGA-484	1,000,000	—	24,576	144	300	300	74	106.60	102.06
892-AGLE600V2FGG256	AGLE600V2-FGG256	FBGA-256	600,000	—	13,824	108	165	165	79	98.42	94.23
892-AGLE600V2FGG484	AGLE600V2-FGG484	FBGA-484	600,000	—	13,824	108	270	270	135	113.93	109.08
892-AGLE600V5FGG256	AGLE600V5-FGG256	FBGA-256	600,000	—	13,824	108	165	165	79	96.06	87.22
892-AGLE600V5FGG484	AGLE600V5-FGG484	FBGA-484	600,000	—	13,824	108	270	270	135	103.49	99.09
892-AGLE3000V2FGG896	AGLE3000V2-FGG896	FBGA-896	3,000,000	—	75,264	504	620	620	310	697.95	668.25
892-AGLE3000V5FGG484	AGLE3000V5-FGG484	FBGA-484	3,000,000	—	75,264	504	341	341	168	592.91	567.68
892-AGLE3000V5FGG896	AGLE3000V5-FGG896	FBGA-896	3,000,000	—	75,264	504	620	620	310	634.50	607.50