FPGA Programming Options

A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

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Programming Options For MCHP FPGAs

	Product	Mass Programming			On board Programming			
		SS3	SS4	In House Programming (IHP)	FP6	FP5	FP4	FP Lite
Silicon	PolarFire	--	--	Yes, on demand only – infrastructure set up expensive	Yes	Yes	Yes	--
	RTG4	--	--	Yes	Yes	Yes	Yes	--
	G4 (Smartfusion2/IGLOO2)	Yes	Yes	Yes	Yes	Yes	Yes	--
	G3 (IGLOO/Proasic3/Fusion/SmartFusion)	Yes	Yes	Yes	--	Yes	Yes	--
	Legacy and Old RT (AntiFuse FPGAs/RTAX/RTSX/RTProAsic3/ProAsic)	Yes	Yes	Yes	--	Only RTProAsic 3	Only RTProAsic 3	Only ProAsic^{PLUS}

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Programming Options For MCHP FPGAs

	Programming Options	Description	OS Support	Application Software	Price
Mass Programming	Silicon Sculptor 3	1. FPGA programming tool - delivers high data throughput 2. Includes a high-speed USB 2.0 interface that allows a customer to connect as many as 12 programmers to a single PC. 3. 1Gb Programmer Memory	Windows 7 Pro/ Windows Vista Business/ Windows XP SP3	Silicon Sculptor Software SculptW	$3960
	Silicon Sculptor 4	1. FPGA programming tool - delivers high data throughput 2. RoHS Compliant 3. Windows 10 support 4. 2GB programmer memory 5. Includes a high-speed USB 2.0 interface that allows a customer to connect as many as 12 programmers to a single PC.	Windows 10/ Windows 7	Silicon Sculptor Software SculptW (v6.0+)*	$13500
	FP Based standalone Programmer	1. Base board+ adapter board (developed internally) 2. G5,G4,RTG4 device support 3. CE compliant	Based on FP	FlashPro SW	TBD
IHP	In House Programming	We offer high volume programming for all Microchip FPGA devices and package types	N/A	N/A	As applicable
Onboard Programming	FlashPro Lite	FlashPro Lite is used exclusively with the ProASIC^{PLUS} family. FlashPro Lite provides all required programming voltages.	Windows 7 Professional	-	$150
	FlashPro 4	1. PPD Programming time > 2 min for PF devices * 2. USB 1.0/2.0 3. JTAG Programming @ 6Mhz	WIN: Windows 10 ,Windows 8.1 , Windows 7 Professional	• FlashPro Express only • FlashPro	$49
	FlashPro 5	1. Programming time >2 min for PF devices * 2. USB 1.0/2.0 3. JTAG Programming @ 15Mhz	LIN: RHEL 7,CentOS 7, RHEL 6,CentOS 6 , WIN: Windows 10 ,Windows 8.1 , Windows 7 Professional	• FlashPro Express only • FlashPro	$49
	FlashPro 6	1. Programming time < 1 minute across all PF devices * 2. USB 3.0/2.0 3. Onboard DDR removes USB overhead 4. JTAG and SPI Programming 5. Field upgrades for improvements/bug fixes	LIN: RHEL 7,CentOS 7, RHEL 6,CentOS 6 WIN: Windows 10 ,Windows 8.1 , Windows 7 Professional	• FlashPro Express only	$159

* For more information click here

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In House Programming (IHP)

We offer high volume programming for all Microchip FPGA devices and package types segregated by **High Reliability devices** (Hirel) and **commercial parts.**

1. Work with your local Sales/Inside sales representative to fill out your requirements
2. Once your request is submitted, we review and approve the request. A unique part number is created corresponding to your request.

NOTE: Once submitted the turnaround time is approximately 2 – 3 business days.

More info at: https://www.microsemi.com/product-directory/services/3711-fpga-soc-design

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In House Programming (IHP)

Additional Details

Item	IHP	COIHP
Definition	**In House Programming** with new unit (s) from our inventory. Unit(s) will be programmed per the first article program details that were submitted and used to create the unique part#.	**Customer Owned In House Programming** with a previously shipped blank unit(s) from the client's inventory. Unit(s) will be returned to us via RMA, programmed per the first article program details that were submitted and used to create the unique part#.
Availability	All programmable base parts can be programmed in house prior to shipment.	HiRel (RT/SPACE) parts are the only part type that can be returned for programming
Pricing	Client must work with the ISR to receive a quote. Programming has no additional cost if the blank unit(s) is programmed by us prior to shipment to the client.	The RMA and replacement orders processed at the original price of the unit(s). In addition, a new client PO is required for the programming fee. The programming fee varies based on part type, and the prices are located in the price book. No quote needed.
Lead Time	Lead Time will be provided during the quoting process. This depends on quantity ordered and where the unit(s) is in process or if a new build is required.	Standard programming lead time for 1 – 20 units is 2 weeks after receipt of RMA unit(s)
MoQ	Same as the MOQ for the base part. This information can be found in our price book.	The minimum is 1 unit, and if you need to program more than 20 units, you will need to request a lead time
Ordering	Space Orders: FPGA Space Orders (FPGA.SPACE@microchip.com), Standard OEM Orders: FPGA OEM (FPGA.OEM@microchip.com), Standard Disti Orders: FPGA Sales (FPGA.DISTI@microchip.com).	ISR or client can submit the RMA form and programming charges PO to FPGA HIREL RMA (FPGA.SPACERMA@microchip.com).

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