Xilinx Configuration PROMs

XC18V00, XC17V00, XC17S00 FPGA Configuration PROMs

Developed to provide an easy-to-use high-performance programming solution, Xilinx offers a full range of configuration memories optimized for use with Xilinx FPGAs. Our in-system re-programmable 18V00 family provides a feature-rich, fast configuration solution unmatched by any other configuration PROM available today. Devices in the XC18V00 series provide a cost-effective method for re-programming and storing large Xilinx FPGA configuration bitstreams. Our low-cost, high-volume 17V00 and 17S00 families are an ideal configuration solution for cost-sensitive or high-run-rate designs.

Xilinx comprehensive PROM product lines are designed to meet the same stringent demands as our high-performance FPGAs and CPLDs. All PROM product families take advantage of Xilinx advanced processing expertise and were developed in close cooperation with Xilinx FPGA designers for optimal performance and reliability.
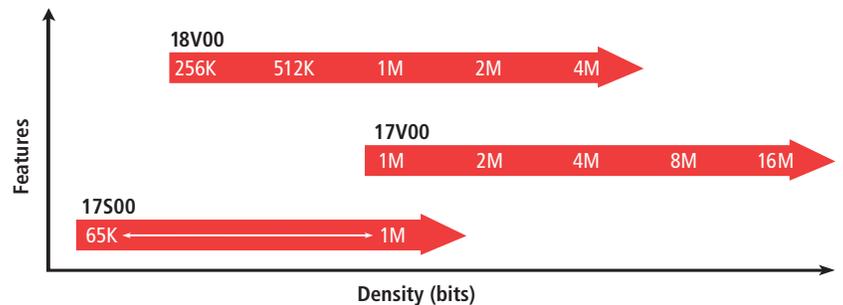
180V00 PROM Family

Based on the Xilinx state-of-the-art ISP PROM architecture and manufactured on an advanced 0.35m flash process, the 18V00 PROM family offers a variety of features.

- 256Kb to 4Mb densities
- In-system programmability using standard JTAG interface with Boundary Scan
- A choice of bit-wise serial or byte-wise parallel configuration modes
- PROM-triggered FPGA reconfiguration via JTAG
- Up to 264 MHz configuration speed
- Cascadable for storing longer or multiple bitstreams
- 5V-, 3.3 V-, and 2.5 V-tolerant I/Os can drive 3.3 V or 2.5 V signals
- Available in PLCC, SOIC, and VQFP packages
- Optimized for all Xilinx FPGA families

Configuration PROMs

170V00 PROM Family

The 17V00 serial PROM family is based on our proven, one-time-programmable (OTP) architecture that provides a stable, low-cost, highly-reliable one-chip configuration solution offering the following features:

- 1Mb to 16Mb densities
- Simple, fast, serial FPGA interface that requires only one user I/O pin
- Available in DIP, SOIC, VOIC, VQFP, and PLCC packages
- Low-power CMOS floating gate process
- Programming support by leading programmer manufacturers

17S00A Spartan® PROM Family

Designed with the Xilinx low-cost Spartan-II/IIE families of FPGAs in mind, this OTP serial PROM family provides a high-performance, low-cost configuration solution optimized for use with Spartan FPGAs. The 17S00A family has a dedicated PROM for each gate density in the Spartan families for ease-of-selection and guaranteed compatibility offering the following features:

- Simple, fast, serial Spartan FPGA interface that requires only one user I/O pin
- Available in DIP, VOIC, SOIC, and VQFP packages
- Advanced, low-cost CMOS process
- Programming support by leading programmer manufacturers

Configuration PROMs for Virtex-II Pro

Device	Configuration Bits	XC17Vxx Solution	XC18Vxx Solution	8-pin TSOP	20-pin PLCC	20-pin SOIC	44-pin PLCC	44-pin VQFP
XC2VP2	1,305,504	17V01	18V02	✓*	✓*	✓*	✓**	✓**
XC2VP4	3,006,624	17V04	18V04		✓*		✓	✓
XC2VP7	4,485,536	17V08	18V04+18V02				✓	✓
XC2VP20	8,214,688	17V08	2 of 18V04				✓	✓
XC2VP50	19,021,472	17V16+17V04	5 of 18V04		✓***		✓	✓

* Available in XC17VXX only
** Available in XC18VXX only
***Available in XC17V04 only

Configuration PROMs for Virtex-II

Device	Configuration Bits	XC17Vxx Solution	XC18Vxx Solution	8-pin TSOP	20-pin PLCC	20-pin SOIC	44-pin PLCC	44-pin VQFP
XC2V40	338,208	17V01	18V512	✓*	✓	✓		✓**
XC2V80	597,408	17V01	18V01	✓*	✓	✓		✓**
XC2V250	1,591,584	17V01	18V02	✓*	✓*	✓*	✓**	✓**
XC2V500	2,557,856	17V04	18V04		✓*		✓	✓
XC2V1000	3,749,408	17V04	18V04		✓*		✓	✓
XC2V1500	5,166,240	17V08	18V02+18V04				✓	✓
XC2V2000	6,808,652	17V08	2 of 18V04				✓	✓
XC2V3000	9,589,408	17V16	2 of 18V04+18V02				✓	✓
XC2V4000	14,220,192	17V16	3 of 18V04+18V02				✓	✓
XC2V6000	19,752,096	17V16+17V04	5 of 18V04		✓***		✓	✓
XC2V8000	26,185,120	2 of 17V16	6 or 18V04+18V02				✓	✓

* Available in XC17VXX only
** Available in XC18VXX only
***Available in XC17V04 only

Configuration PROMs for Spartan-IIE/II

	Device	PROM Solution	8-pin PDIP	8-pin VOIC	20-pin SOIC	44-pin VQFP
Spartan-IIE	XC2S50E	XC17S50A	✓	✓	✓	
	XC2S100E	XC17S100A	✓	✓	✓	
	XC2S150E	XC17S200A	✓	✓		✓
	XC2S200E	XC17S200A	✓	✓		✓
	XC2S300E	XC17S300A				✓
Spartan-II	XC2S15	XC17S15A	✓	✓	✓	
	XC2S30	XC17S30A	✓	✓	✓	
	XC2S50	XC17S50A	✓	✓	✓	
	XC2S100	XC17S100A	✓	✓	✓	
	XC2S150	XC17S150A	✓	✓	✓	
	XC2S200	XC17S200A	✓	✓		✓

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