

Memory solutions for aerospace and defense

Pairing guide for Xilinx FPGAs

AMD Xilinx FPGA pairing guide for Infineon's space memories

AMD Xilinx FPGA	NOR flash density	Rad tol NOR flash	
		Part number	Description
Versal XQR SoCs	1 Gb ¹	CYRS17B01G-133UZMB	1G QSPI rad hard NOR Flash ceramic package
		CYPT17B01G-133UZMB	1G QSPI rad hard NOR Flash prototype ceramic package
	512 Mb ¹	5962F2122202VYC	QML-V 512M QSPI rad hard NOR Flash ceramic package
		CYRS17B512-133UZMB ²	512M QSPI rad hard NOR Flash ceramic package
		CYPT17B512-133UZMB	512M QSPI rad hard NOR Flash prototype ceramic package
		5962F2122201PXE	QML-V 512M QSPI rad hard NOR Flash plastic package
		CYRS17B512-133AZMB ²	512M QSPI rad hard NOR Flash plastic package
		CYPT17B512-133AZMB	512M QSPI rad hard NOR Flash prototype plastic package
		CYEL17B512-133AZM	512M QSPI rad tol NOR Flash plastic package
Kintex™ UltraScale™ XQRKU060 ²	1 Gb ¹	CYRS17B01G-133UZMB	1G QSPI rad hard NOR Flash ceramic package
		CYPT17B01G-133UZMB	1G QSPI rad hard NOR Flash prototype ceramic package
	512 Mb ¹	5962F2122202VYC	512M QSPI rad hard NOR Flash ceramic package
		CYRS17B512-133UZMB ²	512M QSPI rad hard NOR Flash ceramic package
		CYPT17B512-133UZMB	512M QSPI rad hard NOR Flash prototype ceramic package
		5962F2122201PXE	512M QSPI rad hard NOR Flash plastic package
		CYRS17B512-133AZMB ²	512M QSPI rad hard NOR Flash plastic package
		CYPT17B512-133AZMB	512M QSPI rad hard NOR Flash prototype ceramic package
		CYEL17B512-133AZM	512M QSPI rad tol NOR Flash plastic package
	256 Mb	CYRS16B256-133FZMB	256M Serial NOR Flash QSPI
		CYPT16B256-133FZMB	256M Serial NOR Flash QSPI
	512 Mb	CYRS16B512-133FZMB	512M Serial NOR Flash Dual QSPI
		CYPT16B512-133FZMB	512M Serial NOR Flash Dual QSPI

AMD Xilinx FPGA	F-RAM density	F-RAM ³	
		Part number	Description
Kintex™ UltraScale™	2 Mb	5962R1821601VXC	2M FRAM Serial DLAM QML-V
XQRKU060	2 Mb	CYPT15B102Q-GGMB	2M FRAM Serial Prototype

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AMD Xilinx FPGA	F-RAM density	QDR-II+	
		Part number	Description
Kintex™ UltraScale™ Virtex™ 7 Series	72 Mb	CYRS17B01G-133UZMB	1G QSPI rad hard NOR Flash ceramic package
		CYPT17B01G-133UZMB	1G QSPI rad hard NOR Flash prototype ceramic package
		5962F2122202VYC	QML-V 512M QSPI rad hard NOR Flash ceramic package
		CYRS17B512-133UZMB ²	512M QSPI rad hard NOR Flash ceramic package
		CYPT17B512-133UZMB	512M QSPI rad hard NOR Flash prototype ceramic package
		5962F2122201PXE	QML-V 512M QSPI rad hard NOR Flash plastic package
		CYRS17B512-133AZMB ²	512M QSPI rad hard NOR Flash plastic package
		CYPT17B512-133AZMB	512M QSPI rad hard NOR Flash prototype ceramic package
	144 Mb	5962R1821401VXF	144M QDR II+ x18 BURST of 2 DLAM QML V
		CYPT2642KV18-250GCMB	144M QDR II+ x18 BURST of 2 Prototype
		5962R1821402VXF	144M QDR II+ x18 BURST of 4 DLAM QML V
		CYPT2643KV18-250GCMB	144M QDR II+ x18 BURST of 4 Prototype
		5962R1821501VXF	144M QDR II+ x36 BURST of 2 DLAM QML V
		CYPT2644KV18-250GCMB	144M QDR II+ x36 BURST of 2 Prototype
		5962R1821502VXF	144M QDR II+ x36 BURST of 4 DLAM QML V
		CYPT2645KV18-250GCMB	144M QDR II+ x36 BURST of 4 Prototype
		5962R1821403VXF	144M QDR II+ x18 BURST of 2 DLAM QML V w/o ODT
		CYPT1642KV18-250GCMB	144M QDR II+ x18 BURST of 2 Prototype w/o ODT
		5962R1821404VXF	144M QDR II+ x18 BURST of 4 DLAM QML V w/o ODT
		CYPT1643KV18-250GCMB	144M QDR II+ x18 BURST of 4 Prototype w/o ODT
		5962R1821503VXF	144M QDR II+ x36 BURST of 2 DLAM QML V w/o ODT
		CYPT1644KV18-250GCMB	144M QDR II+ x36 BURST of 2 Prototype w/o ODT
		5962R1821504VXF	144M QDR II+ x36 BURST of 4 DLAM QML V w/o ODT
		CYPT1645KV18-250GCMB	144M QDR II+ x36 BURST of 4 Prototype w/o ODT

Notes

1 The 1Gb/512Mb rad hard NOR Flash devices are supported through AMD Vivado patch. Contact Infineon for more information

2 CYRS17B512 part numbers are superseded by the 5962 DLAM part numbers

3 SPI memory controller needs to be supported for F-RAMs

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AMD Xilinx FPGA pairing guide for Infineon's mil-temp memories

AMD Xilinx FPGA	F-RAM density	F-RAM ¹	
		Part number	Description
Kintex™ UltraScale™ XQRKU060	2 Mb	CY15B102Q-SXM	2Mb F-RAM Serial
	2 Mb	CY15B102N-ZS60XM	2Mb F-RAM Parallel
	1 Mb	CY15B101N-ZS60XM	1Mb F-RAM Parallel

AMD Xilinx FPGA	NOR flash density	NOR flash	
		QSPI NOR flash Part number	QSPI NOR flash Description
Kintex™ UltraScale™ XQRKU060	256 Mb	CYPT16B256-133FZMB ²	
	512 Mb	CYPT16B512-133FZMB ²	
Artix™ 7 Kintex™ 7 Kintex™ UltraScale™	128 Mb	S25FL128SAGBAEA00	S29GL128S13FAEV10
		S25FL128SAGBAEA0	S29GL128S13FAEV13
		S25FL128SAGBHEA00	
		S25FL128SAGBHEA03	
Kintex™ UltraScale+™ Virtex™ 7 Virtex™ UltraScale™ Virtex™ UltraScale+™	256 Mb	S25FL256SAGBAEA00	
		S25FL256SAGBAEA03	
		S25FL256SAGBHEA00	
		S25FL256SAGBHEA03	
		S25FL256SAGNFE000	
		S25FL256SAGNFE003	
		S25FL512SAGBAEA10	S29GL512S12DHE010
		S25FL512SAGBAEA13	S29GL512S12DHE013
	512 Mb	S25FL512SAGBAEC10	
		S25FL512SAGBAEC13	
		S25FL512SAGBHEA10	
		S25FL512SAGBHEA13	
		S25FL512SAGBHEC10	
		S25FL512SAGBHEC13	
	1 Gb		S29GL01GS12DHE020
			S29GL01GS12DHE023
			S29GL01GS12DAE020
			S29GL01GS12DAE023

Notes

1 SPI memory controller needs to be supported

2 NOR flash is a ceramic flat pack package

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AMD Xilinx FPGA pairing guide for Infineon's mil-temp memories

AMD Xilinx FPGA	NOR flash density	NOR flash	
		Part number	Description
Spartan™ 7	128 Mb	S25FL128SAGBAEA00	
		S25FL128SAGBAEA03	
		S25FL128SAGBHEA00	
		S25FL128SAGBHEA03	
	256 Mb	S25FL256SAGBAEA00	
		S25FL256SAGBAEA03	
		S25FL256SAGBHEA00	
		S25FL256SAGBHEA03	
		S25FL256SAGNFE000	
		S25FL256SAGNFE003	
	512 Mb	S25FL512SAGBAEA10	
		S25FL512SAGBAEA13	
		S25FL512SAGBAEC10	
		S25FL512SAGBAEC13	
		S25FL512SAGBHEA10	
		S25FL512SAGBHEA13	
		S25FL512SAGBHEA13	
		S25FL512SAGBHEC10	

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AMD Xilinx FPGA pairing guide for Infineon's mil-temp memories

AMD Xilinx FPGA	NOR flash density	NOR flash	
		Part number	Description
Zynq™ 7000 Zynq™ UltraScale+™ MPSoC Zynq™ UltraScale+™ RFSoc Versal®	128 Mb	S25FL128SAGBAEA00	
		S25FL128SAGBAEA03	
		S25FL128SAGBHEA00	
		S25FL128SAGBHEA03	
	256 Mb	S25FL256SAGBAEA00	
		S25FL256SAGBAEA03	
		S25FL256SAGBHEA00	
		S25FL256SAGBHEA03	
		S25FL256SAGNFE000	
		S25FL256SAGNFE003	
	512 Mb	S25FL512SAGBAEA10	
		S25FL512SAGBAEA13	
		S25FL512SAGBAEC10	
		S25FL512SAGBAEC13	
		S25FL512SAGBHEA10	
		S25FL512SAGBHEA13	
		S25FL512SAGBHEA13	
		S25FL512SAGBHEC10	
	1 Gb	S70FL01GSAGBHEC10	
		S70FL01GSAGBAEC13	
		S70FL01GSAGBAEC10	
		S70FL01GSAGBHEC13	