

# XILINX® Spartan™ and Virtex™ Field Programmable Gate Arrays (Cont.)

Package	Gates	#CLB	I/O Pins	Operating Voltage (V)	Digi-Key Part No.	Price Each			Xilinx Part No.
						1	25	100	
144-TQFP	50K	384	102	1.8	122-1331-ND	9.18	9.12	8.97	XC2S50E-6TQG144C
256-FBGA	100K	600	182	1.8	122-1322-ND	17.52	17.43	17.21	XC2S100E-6TQG256C
144-TQFP	100K	600	102	1.8	122-1462-ND	12.56	12.46	12.27	XC2S100E-6TQG144C
208-PQFP	200K	1176	146	1.8	122-1324-ND	18.30	18.15	17.90	XC2S200E-6PQG208C
256-FBGA	300K	1536	182	1.8	122-1325-ND	34.49	34.24	33.73	XC2S300E-6TQG256C
208-PQFP	300K	1536	146	1.8	122-1326-ND	28.02	27.85	27.41	XC2S300E-6PQG208C
456-FBGA	600K	3456	329	1.8	122-1332-ND	123.42	106.73	90.76	XC2S600E-6FGG456C
<b>Virtex-5 Series — RoHS Compliant</b>									
324-FBGA	30K	2400	220	1.0	122-1558-ND	174.24	—	—	XC5VLX30-1FFG324C
676-FBGA	30K	2400	400	1.0	122-1559-ND	200.38	—	—	XC5VLX30-1FFG676C
665-FBGA	30K	2400	360	1.0	122-1560-ND	232.61	—	—	XC5VLX30T-1FFG665C
665-FBGA	35K	2720	360	1.0	122-1566-ND	319.73	—	—	XC5VSX35T-1FFG665C
324-FBGA	50K	3600	220	1.0	122-1562-ND	274.43	—	—	XC5VLX50-1FFG324C
676-FBGA	50K	3600	440	1.0	122-1563-ND	315.37	—	—	XC5VLX50-1FFG676C
665-FBGA	50K	3600	360	1.0	122-1565-ND	369.39	—	—	XC5VLX50T-1FFG665C
1136-FBGA	50K	3600	480	1.0	122-1564-ND	405.98	—	—	XC5VLX50T-1FFG1136C
1153-FBGA	50K	3600	560	1.0	122-1561-ND	362.42	—	—	XC5VLX50-1FFG1153C
665-FBGA	50K	4080	360	1.0	122-1568-ND	607.23	—	—	XC5VSX50T-1FFG665C
1136-FBGA	50K	4080	480	1.0	122-1567-ND	668.21	—	—	XC5VSX50T-1FFG1136C
1136-FBGA	85K	6480	480	1.0	122-1527-ND	656.01	—	—	XC5VLX85T-1FFG1136C
676-FBGA	110K	8640	440	1.0	122-1557-ND	958.32	—	—	XC5VLX110-1FFG676C
<b>Virtex-4 Series — RoHS Compliant</b>									
363-FCBGA	24K	2688	240	1.2	122-1489-ND	153.33	—	—	XC4VLX25-10SF6363C
668-FBGA	24K	2688	448	1.2	122-1488-ND	183.82	—	—	XC4VLX25-10FFG668C
668-FBGA	24K	2688	448	1.2	122-1490-ND	230.00	—	—	XC4VLX25-11FFG668C
668-FBGA	35K	3840	448	1.2	122-1498-ND	325.83	—	—	XC4VX35-10FFG668C
668-FBGA	35K	3840	448	1.2	122-1499-ND	406.85	—	—	XC4VX35-11FFG668C
668-FBGA	40K	4806	448	1.2	122-1492-ND	290.11	—	—	XC4VLX40-10FFG668C
1148-FBGA	40K	4806	640	1.2	122-1491-ND	318.86	—	—	XC4VLX40-10FFG1148C
1148-FBGA	55K	6144	640	1.2	122-1500-ND	815.44	—	—	XC4VX55-10FFG1148C
668-FBGA	60K	6656	448	1.2	122-1494-ND	442.57	—	—	XC4VLX60-10FFG668C
668-FBGA	60K	6656	448	1.2	122-1496-ND	553.21	—	—	XC4VLX60-11FFG668C
1148-FBGA	60K	6656	640	1.2	122-1495-ND	608.97	—	—	XC4VLX60-11FFG1148C
1148-FBGA	60K	6656	640	1.2	122-1493-ND	487.00	—	—	XC4VLX60-10FFG1148C
1148-FBGA	80K	8960	768	1.2	122-1497-ND	757.07	—	—	XC4VLX80-10FFG1148C
1148-FBGA	100K	12288	768	1.2	122-1486-ND	1383.47	—	—	XC4VLX100-10FFG1148C
1513-FBGA	100K	12288	960	1.2	122-1487-ND	1452.29	—	—	XC4VLX100-10FFG1513C
<b>Virtex-II Pro Series — RoHS Compliant</b>									
456-FBGA	6K	752	248	1.5	122-1451-ND	91.48	82.04	71.95	XC2VP4-5FGG456C
672-FCBGA	11K	1232	396	1.5	122-1370-ND	156.09	139.40	122.70	XC2VP7-5FFG672C
672-FCBGA	11K	1232	396	1.5	122-1452-ND	218.53	195.30	172.07	XC2VP7-6FFG672C
676-FBGA	20K	2320	404	1.5	122-1361-ND	220.70	197.48	173.52	XC2VP20-5FGG676C
896-FCBGA	20K	2320	556	1.5	122-1362-ND	370.99	331.79	291.86	XC2VP20-6FFG896C
676-FBGA	30K	3424	416	1.5	122-1363-ND	374.61	335.41	294.03	XC2VP30-5FGG676C
1152-FCBGA	30K	3424	644	1.5	122-1364-ND	655.58	586.61	515.46	XC2VP30-6FFG1152C
1704-FCBGA	100K	11024	1040	1.5	122-1359-ND	5762.28	—	—	XC2VP100-6FFG1704C
<b>Virtex-II Series — RoHS Compliant</b>									
256-FBGA	250K	384	172	1.5	122-1352-ND	58.55	52.35	46.00	XC2V250-4FGG256C
256-FBGA	500K	768	172	1.5	122-1356-ND	98.74	88.58	77.69	XC2V500-4FGG256C
456-FBGA	500K	768	264	1.5	122-1357-ND	108.90	97.29	85.67	XC2V500-4FGG456C
575-BGA	1M	1280	328	1.5	122-1343-ND	164.80	148.11	129.23	XC2V1000-4BGG575C
896-FBGA	1M	1280	432	1.5	122-1344-ND	186.58	166.98	145.93	XC2V1000-4FFG896C
256-FBGA	1M	1280	172	1.5	122-1345-ND	143.75	128.51	112.54	XC2V1000-4FGG256C
456-FBGA	1M	1280	324	1.5	122-1346-ND	157.54	140.85	123.43	XC2V1000-4FGG456C
456-FBGA	1M	1280	324	1.5	122-1348-ND	220.70	197.48	172.79	XC2V1000-5FGG456C
676-FBGA	1.5M	1920	392	1.5	122-1349-ND	222.16	198.93	174.97	XC2V1500-4FGG676C
896-FCBGA	2M	2688	624	1.5	122-1350-ND	378.97	339.05	297.66	XC2V2000-4FFG896C
1152-FCBGA	3M	3584	720	1.5	122-1353-ND	582.98	521.27	458.11	XC2V3000-4FFG1152C
676-FBGA	3M	3584	484	1.5	122-1354-ND	485.69	434.15	381.88	XC2V3000-4FGG676C
676-FBGA	3M	3584	484	1.5	122-1355-ND	680.26	607.67	534.34	XC2V3000-5FGG676C
1152-FCBGA	6M	8448	824	1.5	122-1358-ND	2166.38	1937.70	1702.48	XC2V6000-4FFG1152C
<b>Virtex-E Series</b>									
240-PQFP	71K	384	158	1.8	122-1215-ND	37.79	34.20	29.70	XCV50E-7PQ240C
<b>Virtex Series</b>									
256-BGA	57K	384	180	2.5	122-1212-ND	48.24	43.20	37.32	XC5V50-5BG256C
240-PQFP	57K	384	166	2.5	122-1213-ND	48.24	43.20	37.32	XC5V50-5PQ240C
240-PQFP	108K	600	166	2.5	122-1214-ND	90.75	81.32	69.95	XC5V100-5PQ240C

◆ RoHS Compliant

## Starter Kits and Evaluation Platforms

The **CoolRunner-II Starter Kit** includes: • X-Board with XC2C256-TQ144 • Resource CD • USB 2.0 cable • ISE®WebPACK™ CD • Three peripheral modules

The **CoolRunner-II Starter Kit Peripheral Module Bundle** contains the following modules: • PMod-AD1 • PMod-DA2 • PMod-HB3 • PMod-CON3 • PMod-AMP1 • PMod-SF • PMod-DC1 • PMod-RS232

The **CoolRunner-II Low Power Low Cost Starter Kit** includes: • Evaluation Board with an XC2C256-TQ144 device • USB 2.0 cable for power, programming and data transfer • 9V battery connector for optional battery power • QuickStart Guide • ISE®WebPACK™ software • Resource CD

The **CPLD Design Kit** with AA Battery Holder supports the CoolRunner-II and XC9500XL Device Families. **Kit Includes:** • Prototyping board • XC2C256-TQ144 CoolRunner-II CPLD • XC9572XL-10VQ44 CPLD • JTAG Cable • ISE®WebPACK™ CD • Programmable Logic Handbook • Resource CD

The **Spartan™-3 Starter Kit** brings high-volume designs to reality quicker, at a lower cost and on schedule. **Kit Includes:** • JTAG3 Programming Cable • Universal AC/DC Power Supply (100 - 220V, 50 - 60Hz) • Application Notes/Users's Guide • XC3S200 FT256 Xilinx Spartan-3 FPGA • XC3S200 Xilinx Platform Flash

The **Spartan™-3A Starter Kit** is a complete development solution giving designers instant access to the capabilities of the Spartan-3A family. **Kit Includes:** • Development board • Power Supply (100 - 240V, 50 - 60Hz) with universal plug adaptors • Evaluation software: ISE®WebPACK™ or ISE Foundation™ Evaluation • Quickstart Guide • Programming Cable • Product Collateral

The **Spartan™-3A DDR2 SDRAM Development Kit** includes: • Spartan-3A development board • Universal power supply with plug adaptors • Evaluation software: ISE®WebPACK™ or ISE Foundation™ ChipScope Pro • Quickstart Guide • Programming cable

The **Spartan™-3A DSP Starter Platform** provides the necessary hardware to evaluate the advanced features of the Spartan-3A DSP and implement complete user applications. **Includes:** • DSP 1800A Development Board • Universal power supply • ISE®WebPACK™

The **Spartan™-3AN Starter Kit** is non-volatile FPGA platform evaluation board includes 10/100 Ethernet/PHY, ADC/DAC circuitry, and connectivity options. **Kit Includes:** • Development board • Universal power supply with plug adaptors • Evaluation software: ISE®WebPACK™ or ISE Foundation™ • Quickstart Guide • Programming cable

The **Spartan™-3E Starter Kit** is a complete development board solution giving designers instant access to the capabilities of the Spartan-3E family. **Kit Includes:** • Board • Power Supply • Evaluation Software • Resource CD

The **Spartan™-3 PCI Express Starter Kit** provides a PCI Express interface through a two-chip solution consisting of the Xilinx Spartan-3 FPGA and the Philips PX1011A-EL1 PCI Express PHY (PXX1011A)

The **Virtex-4™ Kit** is a feature rich evaluation platform which provides easy access to resources available on the Virtex-4 FPGA device. **Kit Includes:** • Evaluation platform including power supply • 32MB Compact-Flash card • Built-in demonstrations

The **Virtex™-5 Kit** is a feature-rich and low-cost evaluation/development platform which provides easy and practical access to resources available in the on-board Virtex-5 LX50 FPGA device. **Kit Includes:** • Xilinx Virtex-5 ML501 Evaluation platform • System ACE CompactFlash card • DVI to VGA adapter (Development tools and PC download cable are not included and must be ordered separately)

The **MultiPRO Desktop Tool** is a multi-function programming and configuration cable. Designed for use in a desktop environment, it interfaces to a PC using the industry standard IEEE 1284 parallel port. An external AC power brick provides +5V DC to the pod.

Description	Digi-Key Part No.	Price Each	Xilinx Part No.
CoolRunner-II Starter Kit	122-1533-ND◆	40.03	HW-CRII-SK-G
CoolRunner-II Starter Kit Bundle	122-1534-ND◆	79.37	HW-CRII-PM-ACC-G
CoolRunner-II Low Power Low Cost Starter Kit	122-1573-ND◆	31.28	SK-CRII-L-G
CPLD Design Kit	122-1512-ND◆	40.08	DO-CPLD-DK-G
Spartan-3AN Starter Kit	122-1521-ND◆	119.35	HW-SPAR3AN-SK-UNI-G
Spartan-3A Starter Kit	122-1514-ND◆	151.59	HW-SPAR3A-SK-UNI-G
Spartan-3A DDR2 Development Kit	122-1531-ND◆	163.35	HW-SPAR3DDR2-DK-UNI-G-PROMO1
Spartan-3A DDR2 Development Kit	122-1575-ND◆	188.18	HW-SPAR3DDR2-DK-UNI-G
Spartan-3A DSP Starter Platform	122-1574-ND◆	236.10	HW-SD1800A-DSP-SB-UNI-G
Spartan-3AN Starter Kit	122-1528-ND◆	166.07	HW-SPAR3AN-SK-UNI-G
Spartan-3E Starter Kit	122-1536-ND◆	119.35	HW-SPAR3E-SK-UNI-G
Spartan-3 PCI Express Starter Kit	122-1502-ND◆	279.66	HW-S3PCIE-DK
Virtex-4 ML401 Evaluation Platform	122-1523-ND◆	396.40	HW-V4-ML401-UNI-G
Virtex-5 Evaluation Platform Kit	122-1508-ND◆	797.15	HW-V5-ML501-UNI-G
MultiPRO Desktop Tool	122-1503-ND	334.37	HW-MULTIPRO

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**Free shipping on orders over £50! All prices are in British pound sterling and include duties.**

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