

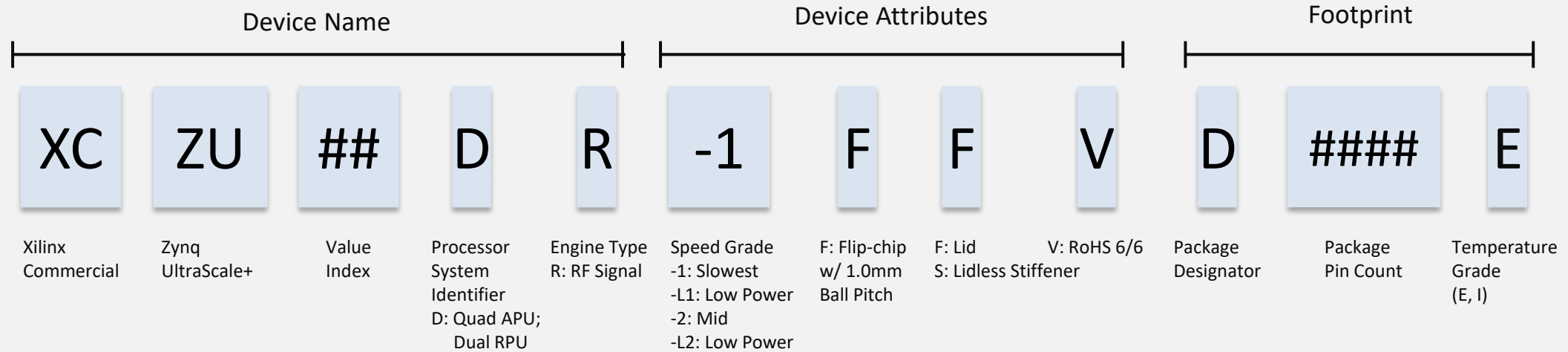
# Zynq UltraScale+ RFSoc Product Tables and Product Selection Guide



Device Name		ZU21DR	ZU25DR	ZU27DR	ZU28DR	ZU29DR	ZU39DR	ZU42DR	ZU43DR	ZU46DR	ZU47DR	ZU48DR	ZU49DR	ZU65DR	ZU67DR				
Gen 1							Gen 2	Gen 3						DFE					
Quad-core Arm® Cortex®-A53 MPCore™ up to 1.3GHz, Dual-core Arm Cortex-R5F MPCore up to 533MHz																			
PS	12-bit RF-ADC w/DDC	# of ADCs	0	8	8	8	16	16	-	-	-	-	-	-	-	-			
		Max Rate (GSPS)	0	4.096	4.096	4.096	2.058	2.220	-	-	-	-	-	-	-	-			
RF Data Converter	14-bit RF-ADC w/DDC	# of ADCs	-	-	-	-	-	-	8	2	4	8	4	8	8	16	6	8	2
		Max Rate (GSPS)	-	-	-	-	-	-	2.5	5.0	5.0	2.5	5.0	5.0	5.0	2.5	5.9	2.95	5.9
Programmable Logic (PL)	14-bit RF-DAC w/DUC	# of DACs	0	8	8	8	16	16	8	4	12	8	8	16	6	8			
		Max Rate (GSPS)	0	6.554	6.554	6.554	6.554	6.554	9.85 <sup>(3)</sup>	9.85 <sup>(3)</sup>	9.85 <sup>(3)</sup>	9.85 <sup>(3)</sup>	9.85 <sup>(3)</sup>	9.85 <sup>(3)</sup>	10.0 <sup>(4)</sup>	10.0 <sup>(4)</sup>			
	SD-FEC	8	0	0	8	0	0	0	0	8	0	8	0	0	0				
	Digital Front-End (DFE)	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓				
	Number of DDCs per RF-ADC <sup>(1)</sup>	0	1	1	1	1	1	1	1	2	1	1	1	1	1				
	RF input Freq max. GHz	4					5	6						7.125					
	Decimation / Interpolation	1x, 2x, 4x, 8x					1x, 2x, 4x, 8x	1x, 2x, 3x, 4x, 5x, 6x, 8x, 10x, 12x, 16x, 20x, 24x, 40x						1x, 2x, 3x, 4x, 5x, 6x, 8x, 10x, 12x, 16x, 20x, 24x, 40x					
	System Logic Cells (K)	930	678	930	930	930	930	489	930	930	930	930	930	489	489				
	CLB LUTs (K)	425	310	425	425	425	425	224	425	425	425	425	425	224	224				
	Max. Dist. RAM (Mb)	13.0	9.6	13.0	13.0	13.0	13.0	6.8	13.0	13.0	13.0	13.0	13.0	6.8	6.8				
	Total Block RAM (Mb)	38.0	27.8	38.0	38.0	38.0	38.0	22.8	38.0	38.0	38.0	38.0	38.0	22.8	22.8				
	UltraRAM (Mb)	22.5	13.5	22.5	22.5	22.5	22.5	45.0	22.5	22.5	22.5	22.5	22.5	45.0	45.0				
	DSP Slices	4,272	3,145	4,272	4,272	4,272	4,272	1,872	4,272	4,272	4,272	4,272	4,272	1,872	1,872				
	GTY Transceivers	16	8	16	16	16	16	8	16	16	16	16	16	8	8				
	PCIe® Gen3 x16	2	1	2	2	2	2	-	-	-	-	-	-	-	-				
	PCIeGen3 x16/Gen4 x8 / CCIX <sup>(2)</sup>	-	-	-	-	-	-	0	2	2	2	2	2	0	0				
	150G Interlaken	1	1	1	1	1	1	0	1	1	1	1	1	0	0				
	100G Ethernet MAC/PCS w/RS-FEC	2	1	2	2	2	2	0	2	2	2	2	2	1	1				
	System Monitor	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
	Speed Grades	-1E, -1I, -1LI, -2E, -2LE, -2I, -2LI	-1E, -1I, -1LI, -2E, -2LE, -2I, -2LI	-1E, -1I, -1LI, -2E, -2LE, -2I, -2LI	-1E, -1I, -1LI, -2E, -2LE, -2I, -2LI	-1E, -1I, -1LI, -2E, -2LE, -2I, -2LI	-1E, -1I, -1LI, -2E, -2LE, -2I, -2LI	-2I, -2LI	-1E, -1I, -1LI, -2E, -2I, -2LI	-1E, -1I, -1LI, -2E, -2I, -2LI	-1E, -1I, -1LI, -2E, -2I, -2LI	-1E, -1I, -1LI, -2E, -2I, -2LI	-1E, -1I, -1LI, -2E, -2I, -2LI	-1E, -1I, -1LI, -2E, -2I, -2LI	-1I, -1LI, -2I, -2LI	-1I, -1LI, -2I, -2LI			
Package Footprint	Package Dimensions	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC	PSIO, HDIO, HPIO GTR, GTY RF-ADC, RF-DAC				
D1156	35x35	214, 72, 208 4, 16 0, 0																	
E1156	35x35		214, 48, 104 4, 8 8, 8	214, 48, 104 4, 8 8, 8	214, 48, 104 4, 8 8, 8			214, 24, 128 4, 8 10, 8	214, 48, 104 4, 8 4, 4		214, 48, 104 4, 8 8, 8	214, 48, 104 4, 8 8, 8		214, 24, 130 4, 8 6, 6	214, 24, 130 4, 8 10, 8				
G1517	40x40		214, 48, 299 4, 8 8, 8	214, 48, 299 4, 16 8, 8	214, 48, 299 4, 16 8, 8				214, 48, 299 4, 16 4, 4		214, 48, 299 4, 16 8, 8	214, 48, 299 4, 16 8, 8							
F1760	42.5x42.5					214, 96, 312 4, 16 16, 16	214, 96, 312 4, 16 16, 16							214, 96, 312 4, 16 16, 16					
H1760	42.5x42.5									214, 48, 312 4, 16 12, 12									

1. This value applies when all RF I/O of an RF-ADC tile are used. 2. This block operates in compatibility mode for 16.0GT/s (Gen4) operation. See PG213. 3. For operation up to 10GSPS, contact your local Xilinx Sales Representative. 4. 10GSPS RF-DAC operation is available in -2I speed grade.

# Zynq® UltraScale+™ RFSoc Ordering Information



E = Extended (Tj = 0°C to +100°C)  
I = Industrial (Tj = -40°C to +100°C)

Note: -L2E (Tj = 0°C to +110°C); -L2I (Tj = -40°C to +110°C)  
Refer to [DS889](#), Zynq UltraScale+ RFSoc Data Sheet: Overview for additional information