

# Zynq UltraScale+ RFSoc Product Tables and Product Selection Guide



Device Name		ZU21DR	ZU25DR	ZU27DR	ZU28DR	ZU29DR	ZU39DR	ZU46DR	ZU47DR	ZU48DR	ZU49DR		
RF Data Converter	Quad-core Arm® Cortex™-A53 MPCore™ up to 1.3GHz, Dual-core Arm Cortex-R5 MPCore up to 533MHz												
	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	–	–	–	–	
	14-bit RF-ADC w/DDC	# of ADCs	–	–	–	–	–	–	8	4	8	8	16
		Max Rate (GSPS)	–	–	–	–	–	–	2.5	5.0	5.0	5.0	2.5
	14-bit RF-DAC w/DUC	# of DACs	0	8	8	8	16	16	12	8	8	16	
		Max Rate (GSPS)	0	6.554	6.554	6.554	6.554	6.554	10.0	10.0	10.0	10.0	
		SD-FEC	8	0	0	8	0		8	0	8	0	
		RF input Freq max. GHz	4					5	6				
		Decimation / Interpolation	1x, 2x, 4x, 8x					1x, 2x, 4x, 8x	1x, 2x, 3x, 4x, 5x, 6x, 8x, 10x, 12x, 16x, 20x, 24x, 40x				
		System Logic Cells (K)	930	678	930	930	930	930	930	930	930	930	
		CLB LUTs (K)	425	310	425	425	425	425	425	425	425	425	
		Max. Dist. RAM (Mb)	13.0	9.6	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	
		Total Block RAM (Mb)	38.0	27.8	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	
		UltraRAM (Mb)	22.5	13.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
		DSP Slices	4,272	3,145	4,272	4,272	4,272	4,272	4,272	4,272	4,272	4,272	
		GTY Transceivers	16	8	16	16	16	16	16	16	16	16	
		PCIe® Gen3 x16	2	1	2	2	2	2	–	–	–	–	
		PCIeGen3 x16/Gen4 x8 / CCIX	–	–	–	–	–	–	2	2	2	2	
		150G Interlaken	1	1	1	1	1	1	1	1	1	1	
	100G Ethernet MAC/PCS w/RS-FEC	2	1	2	2	2	2	2	2	2	2		
	System Monitor	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	-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		
Programmable Logic (PL)	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		
	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, 48, 104 4, 8 8, 8	214, 48, 104 4, 8 8, 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 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				

# Zynq® UltraScale+™ RFSoc Ordering Information



XC	ZU	##	D	R	-1	F	F	V	Footprint		E
Xilinx Commercial	Zynq UltraScale+	Value Index	Processor System Identifier D: Quad APU; Dual RPU	Engine Type R: RF Signal	Speed Grade -1: Slowest -L1: Low Power -2: Mid -L2: Low Power	F: Flip-chip w/ 1.0mm Ball Pitch	F: Lid S: Lidless Stiffener	V: RoHS 6/6	Package Designator	Package Pin Count	Temperature Grade (E, I)

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)