







FPGA Reference (Vcore VCCINT)

Vendor		Xilinx				Altera				
Series Name	Virtex Ultra Scale+ Hi-end		Zynq UltraScale+ Mid-end	Virtex Ultra Scale Hi-end	Kintex Ultra Scale Mid-end	Stratix10 Hi-end	Stratix10 Hi-end	Arria10 Mid-end	Arria10 Mid-end	Arria10 Mid-end
										
	FPGA P/N	XCVU9P		XCZU9EG-2FFVB1156	XCVU190	XCKU***	10GX***,10SX***		10AX***,10AS***,10AT090/115	
FPGA P/N on Reference Board	VCU118 EK-U1-VCU118-ES1-G		ZCU102 MP SoC	VCU110 XCVU190	KCU105 XCKU040	PCIe	S10GX_SI_A	A10GT-400G_B1	A10GT-400G	Terasic De5a-Net 10AX115N
Process	16nm		16nm	16nm	20nm	14nm	14nm	20nm	20nm	20nm
Applications	1Tbps Networking Smart NIC Machine learning Military fully-integrated radar/early-warning systems		5G wireless Industrial IoT Military ADAS	3G basestation Medical Military ASIC prototype	LTE basestation 4K/8K TV Medical Network Industry Broadcast	OTN 5G Network Detcenter Medical Military Broadcast ASIC Prototype	OTN 5G Network Detcenter Medical Military Broadcast ASIC Prototype	LTE basestation 4K/8K TV Medical Network Industry Broadcast	LTE basestation 4K/8K TV Medical Network Industry Broadcast	LTE basestation 4K/8K TV Medical Network Industry Broadcast
V core VCCINT	Output Capacitors	DC/DC	2V/470uF x4	2V/470uF x8	2V/470uF x8	2V/470uF x8	2.5V/470uF x24	6.3V/470uF x40	6V/470uF x40	2.5V/470uF (Poly Al) x10 2.5V/330uF (Poly Ta) x12 2V/470uF (Poly Ta) x14
		Bank/Decoupling/Bypass		6.3V120uF x1						6.3V/330uF (Poly Ta) x 1 6.3V/100uF (Poly Ta) x21 6.3V/470uF (Poly Ta) x2
	Capacitor Bulk	Vendor	Panasonic	Panasonic	Panasonic	Panasonic	Panasonic	Panasonic	Panasonic	Panasonic
		P/N	EEFGX0D471R	EEFGX0D471R EEFCX0J121R	EEFGX0D471R	EEFGX0D471R	EEFCX0D471R	EEFGX0E471R	6TPE470M	6TPB470M
	Bulk Cap Type	Polymer Al	Polymer Al	Polymer Al	Polymer Al	Polymer Al	Polymer Al	Polymer Ta	Polymer Ta	Polymer Al/Ta