

GOWIN Pin Compatible Replacement of Intel, Xilinx (AMD) and Lattice FPGAs

GOWIN Semiconductor is a best-in-class price/performance FPGA manufacturer. With numerous logic elements, high-performance DSPs, high-speed IOs and optional hardware IPs, including Cortex-M3 microprocessor cores, extended memory, BLE transceiver and embedded asynchronous PUF based security.

Legacy FPGA manufacturers such as Intel (Altera), Xilinx (AMD) and Lattice are currently experiencing major supply chain challenges, which are expected to continue well into 2022. GOWIN offers FPGA device packages that are pin for pin compatible with legacy FPGA manufacturers while offering over 90% of the same or sometime even additional capabilities.

Given the high demand for FPGAs from Xilinx (AMD) Spartan-6, Lattice MachXO2, MachXO3, and Intel (Altera) MAX II, MAX IV, MAX10, & Cyclone IV, the following crosstables will help you find the GOWIN Alternative.

Xilinx (AMD)			GOWIN Replacement		
Manufacturer	Series	Part-No	Manufacturer	Series	Part-No
Xilinx (AMD)	Spartan 6	XC6LX4-2CPG196	GOWIN	GW2A-18	GW2A-LV18MG196
		XC6LX9-2CPG196			
		XC6LX16-2CPG196			
		XC6LX9-2FTG256			
		XC6LX16-2FTG256			
		XC6LX25-2FTG256			
		XC6SLX9-CSG324		GW2A-55	GW2A-LV55UG324
		XC6SLX16-CSG324			
		XC6SLX25-CSG324			
		XC6SLX25-CSG324			
		XC6SLX45-CSG324			

Intel/Altera			GOWIN Replacement		
Manufacturer	Series	Part-No	Manufacturer	Series	Part-No
Intel/Altera	MAX II/V	EPM570F256C5N	GOWIN	GW1N-4	GW1N-LV4MG132X
		EPM1270F256C5N			GW1N-UV4PG256M
		EPM2210F256C5N			GW1N-LV9C81M
	MAX 10	10M08-DC-V8117/C8		GW1N-9	GW1N-UV9UG169
		10M02-SC-U169			
		10M04-SC-U169			
	Cyclone IV	EP4CE10-F17C8		GW2A-18	GW2A-LV18PG256S
		EP4CE15-F17C8			
		EP4CE22-F17C8			
		EP4CE22-F17C8			

Lattice			GOWIN Replacement			
Manufacturer	Series	Part-No	Manufacturer	Series	Part-No	
Lattice	MachXO2	LCMXO2-400ZE-5BG332	GOWIN	GW2AN-18X	GW2AN-EV18X-UG332	
		LCMXO2-700ZE-5BG332				
		LCMXO2-400HE-5BG332				
		LCMXO2-700HE-5BG332				
		LCMXO2-400HC-5BG332				
		LCMXO2-700HC-5BG332				
	MachXO3	LCMXO3LF-6900E-BG324			GW2AN-18X	GW2AN-UV18X-UG324
		LCMXO3LF-9400E-BG324				
		LCMXO3LF-6900C-BG324				
		LCMXO3LF-9400C-BG324				
		LCMXO3LF-6900E-BG324				
		LCMXO3LF-9400E-BG324				
		LCMXO3LF-6900C-BG324				
		LCMXO3LF-9400C-BG324				
		LCMXO3LF-6900E-BG324				
		LCMXO3LF-9400E-BG324				
		LCMXO3LF-6900C-BG324				
		LCMXO3LF-9400C-BG324				
		LCMXO3LF-6900E-BG324				
		LCMXO3LF-9400E-BG324				
		LCMXO3LF-6900C-BG324				
		LCMXO3LF-9400C-BG324				
		LCMXO3LF-6900C-5BG256		GW1N-9		
LCMXO3LF-9400C-5BG256						
LCMXO3LF-6900E-5BG256						

Lattice			GOWIN Replacement		
Manufacturer	Series	Part-No	Manufacturer	Series	Part-No
Lattice	MachXO2	LCMXO2-256ZE-5TG100	GOWIN	GW1N-2	GW1N-LV2LQ100X
		LCMXO2-640ZE-5TG100			
		LCMXO2-1200ZE-5TG100			
		LCMXO2-2000ZE-5TG100			
		LCMXO2-2000HE-5TG100			
		LCMXO2-256HC-5TG100			
		LCMXO2-640HC-5TG100			
		LCMXO2-640UHC-5TG100			
		LCMXO2-1200HC-5TG100			
		LCMXO2-2000HC-5TG100			
		LCMXO2-1200ZE-5TG144			
		LCMXO2-2000ZE-5TG144			
		LCMXO2-4000ZE-5TG144			
		LCMXO2-7000ZE-5TG144			
		LCMXO2-2000HE-5TG144			
		LCMXO2-4000HE-5TG144			
		LCMXO2-7000HE-5TG144			
		LCMXO2-640UHC-5TG144			
		LCMXO2-1200HC-5TG144			
		LCMXO2-2000HC-5TG144			
		LCMXO2-4000HC-5TG144			
		LCMXO2-7000HC-5TG144			
		LCMXO2-256ZE-5MG132			
		LCMXO2-640ZE-5MG132			
		LCMXO2-1200ZE-5MG132			
		LCMXO2-2000ZE-5MG132			
		LCMXO2-4000ZE-5MG132			
		LCMXO2-2000HE-5MG132			
		LCMXO2-4000HE-5MG132			
		LCMXO2-256HC-5MG132			
		LCMXO2-640HC-5MG132			
		LCMXO2-640UHC-5MG132			
		LCMXO2-1200HC-5MG132			
		LCMXO2-2000HC-5MG132			
		LCMXO2-4000HC-5MG132			
		LCMXO2-7000HC-5BG332			
		LCMXO2-7000HE-5BG332			
		LCMXO2-1200UZE-5BG256			
		LCMXO2-2000ZE-5BG256			
		LCMXO2-4000ZE-5BG256			
		LCMXO2-7000ZE-5BG256			
		LCMXO2-1200UHE-5BG256			
		LCMXO2-2000HE-5BG256			
		LCMXO2-4000HE-5BG256			
		LCMXO2-7000HE-5BG256			
		LCMXO2-1200UHC-5BG256			
		LCMXO2-2000HC-5BG256			
		LCMXO2-4000HC-5BG256			
		LCMXO2-7000HC-5BG256			
		LCMXO2-2000ZE-5BG256			
LCMXO2-4000ZE-5BG256					
LCMXO2-7000ZE-5BG256					
LCMXO2-2000HE-5BG256					
LCMXO2-4000HE-5BG256					
LCMXO2-7000HE-5BG256					
LCMXO2-2000HC-5BG256					
LCMXO2-4000HC-5BG256					
LCMXO2-7000HC-5BG256					
LCMXO2-2000UZE-5BG484					
LCMXO2-4000ZE-5BG484					
LCMXO2-7000ZE-5BG484					
LCMXO2-2000UHE-5BG484					
LCMXO2-4000UHE-5BG484					
LCMXO2-7000UHE-5BG484					
LCMXO2-2000UHC-5BG484					
				GW1N-9	GW1N-UV9UG332 GW1N-LV9UG332
				GW2AN-18X & GW2AN-9X	GW2AN-LV18X-PG256
					GW2AN-UV18X-PG256
					GW2AN-EV18X-UG256
					GW2AN-UV18X-UG256
					GW2AN-EV18X-PG484
					GW2AN-UV18X-PG484