

04/2023

LittleBee

Flash Based FPGAs
1-10K Logic Element Density

Consumer, Mobile and IoT

- As small as 1.8 x 1.8mm
- Interface Bridging and Multiplexing

Industrial, Commercial and Server

- TQFP, QFN and BGA (0.8mm) Packaging
- CPLD Replacement, Power/Platform Management

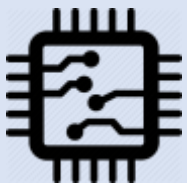
Arora

SRAM Based FPGAs
20-55K Logic Element Density

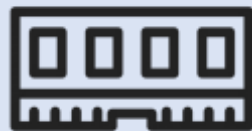
Communications, Industrial and Automotive

- As small as 8x8mm
- Up to 607 user interface pins
- 1.2 Gbps LVDS, DDR3, MIPI D-PHY, PCI
- High Speed Interfacing and IO Expansion

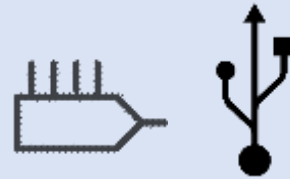
Differentiating FPGA Features



Hardened MCUs
Arm Cortex-M3



On-Chip Memory
Up to 16MB





More Interfaces
ADC, USB, SPMI, I3C



Ultra-Low Power
10µW Sleep



Security
PUF Based RoT

GOWIN FPGA Family Devices			
 Flash-Based FPGA		 SRAM-Based FPGA	
GW1N* 1-10K Logic Element Density		GW2A* 20-55K Logic Element Density	
Ultra-Low Power SPMI Power Management	*Z		*R
Hardcore MCU ARM Cortex-M3	*S	*SR	
Extended Memory On-Chip SRAM	*R		
Security SRAM PUF Root-of-Trust	*SE *SER		
Bluetooth Low Energy BLE RF Transceiver	*RF		
Arora Embedded Flash	*N		
Arora Flash & Memory	*NR		

Product Features

Product Series	Density (LUTs)	LittleBee	Arora
GW1N	1K, 1P5K, 2K, 4K, 9K	Traditional Flash-Based FPGA	N/A
GW1NR	1K, 2K, 4K, 9K	Extended Memory	
GW1NZ	1K	Ultra-Low Power	
GW1N-A	1K, 4K	Automotive	
GW1NS	4K	Hardcore MCU	
GW1NSR	4K	MCU + Memory	
GW1NSER	4K	MCU + Security + Memory	
GW1NRF	4K	MCU + BLE Transceiver	
GW2A	20K, 55K	N/A	RAM-Based FPGA
GW2AR	20K		Extended Memory
GW2A-A	20K		Automotive
GW2AN	10K, 20K, 55K		Embedded Flash
GW2ANR	20K		Embedded Flash Plus Memory