

Vendor	COLOGNE CHIP			ALTERA				
Series	GateMate			Agilex 5			Cyclone 5	
Product	CCGM1A1	CCGM1A2	CCGM1A4	A3C0253	A3C50	A3C065	5CEFA2	5CEFA4
Lut type	8input LUT-tree	8input LUT-tree	8input LUT-tree	LUT6	LUT6	LUT6	LUT6	LUT6
Node	28nm	28nm	28nm	10nm	10nm	10nm	28nm	28nm
Logic Elements	20k	40k	81k	25k	50k	65k	25k	49k
Register	40k	81k	163k	50k	100k	130k	50k	98k
Block RAM Bits	1,310k	2,621k	5,242k	2,200k	4,400k	5,700k	1,200k	3,300k
PLLs	4	8	16	6	6	6	4	6
SerDes	1	2	4	4	4	4	2	4
Multipliers	Arbitrary	Arbitrary	Arbitrary	150	300	390	80	150
Core Voltage	0.9V-1.1V	0.9V-1.1V	0.9V-1.1V	0.85V	0.85V	0.85V	0.9V	0.9V
User GPIO (Single added/LVDS)	162/81	162/81	154/77	228	300	300	150	224
Package	15x15 mm	15x15 mm	15x15 mm	23x23mm	23x23mm	23x23mm	17x17 mm	17x17 mm

Vendor	COLOGNE CHIP			MICRO CHIP				
Series	GateMate			PolarFire	IGLOO2	SmartFusion2		
Product	CCGM1A1	CCGM1A2	CCGM1A4	MPF050T	M2GL050	M2S050	M2S090	M2S150
Lut type	8input LUT-tree	8input LUT-tree	8input LUT-tree	LUT4	LUT4	LUT4	LUT4	LUT4
Node	28nm	28nm	28nm	28nm	65nm	65nm	65nm	65nm
Logic Elements	20k	40k	81k	48k	50k	50k	90k	150k
Register	40k	81k	163k	48k	50k	50k	90k	150k
Block RAM Bits	1,310k	2,621k	5,242k	3,800k	1.650k	2,600k	4,800k	4,800k
PLLs	4	8	16	4	4	6	6	6
SerDes	1	2	4	1	1	4	4	4
Multipliers	Arbitrary	Arbitrary	Arbitrary	84	96	168	300	462
Core Voltage	0.9V-1.1V	0.9V-1.1V	0.9V-1.1V	1.0V	1.2V	1.2V	1.2V	1.2V
User GPIO (Single added/LVDS)	162/81	162/81	154/77	196	300	430	430	430
Package	15x15 mm	15x15 mm	15x15 mm	19x19 mm	19x19 mm	23x23mm	17x17 mm	17x17 mm

Vendor	COLOGNE CHIP			LATTICE				
Series	GateMate			CrossLink-NX		ECP5		
Product	CCGM1A1	CCGM1A2	CCGM1A4	LIFCL-40	LIFCL-33	LFE5U-12F	LFE5U-25F	LFE5U-45F
Lut type	8input LUT-tree	8input LUT-tree	8input LUT-tree	LUT4	LUT4	LUT4	LUT4	LUT4
Node	28nm	28nm	28nm	28nm	28nm	40nm	40nm	40nm
Logic Elements	20k	40k	81k	39k	33k	12k	24k	44k
Register	40k	81k	163k	39k	50k	24k	48k	88k
Block RAM Bits	1,310k	2,621k	5,242k	2,900k	2,500k	500k	1,100k	1,800k
PLLs	4	8	16	4	4	2	2	4
SerDes	1	2	4	1	1	yok	yok	yok
Multipliers	Arbitrary	Arbitrary	Arbitrary	56	56	28	56	92
Core Voltage	0.9V-1.1V	0.9V-1.1V	0.9V-1.1V	1.0V	1.0V	1.2V	1.2V	1.2V
User GPIO (Single added/LVDS)	162/81	162/81	154/77	206	210	197	197	197
Package	15x15 mm	15x15 mm	15x15 mm	6x6mm	4x4mm	14x14 mm	14x14 mm	14x14 mm