

- This catalog provides a summary of the semiconductor devices available from SANYO's Semiconductor Business Headquarters as of September, 1996.
- ◆ : Indicates those which are under development and ▽ : new products
- Products are classified by application, and listed by Type Number, package type and/or arranged in order of one of the main characteristics.
- An alphabet put immediately after the number of pins represents a variation of the package.
- Package : DIP : Dual In line Package, SIP : Single In line package, SOP : Small Outline Package, SSOP : Shrink Small Outline Package, QFP : Quad Flat Package, SQFP : Shrink Quad Flat Package, SOJ : Small Outline J-Leaded Package, TSOP : Thin Small Outline Package, DIC : Dual In-line Ceramic Package, QFC : Quad Flat Ceramic Package

# INTEGRATED CIRCUITS

## Gate Arrays (monolithic ICs)

Type No.	Gates*	Input/output cells	Delay time † (ns)	Supply voltage range(V)	Features
LC21005A	2,000	48	0.7	3 to 5.5	0.8 μm SOG Suitable for realizing large-scale LSI systems 3.3 V and 5 V dual supplies Interface with general-purpose CAD tools (CADENCE, Mentor, View Logic) RAM/ROM mountable
LC21010A	4,000	64	0.7	3 to 5.5	
LC21016A	6,000	80	0.7	3 to 5.5	
LC21026A	10,000	100	0.7	3 to 5.5	
LC21044A	17,000	128	0.7	3 to 5.5	
LC21057A	22,000	144	0.7	3 to 5.5	
LC21070A	28,000	160	0.7	3 to 5.5	
LC21085A	34,000	176	0.7	3 to 5.5	
LC21102A	40,000	192	0.7	3 to 5.5	
LC21120A	48,000	208	0.7	3 to 5.5	
LC21139A	56,000	224	0.7	3 to 5.5	
LC21172A	68,000	248	0.7	3 to 5.5	
LC21201A	80,000	268	0.7	3 to 5.5	
LC21253A	101,000	300	0.7	3 to 5.5	
LC21312A	125,000	332	0.7	3 to 5.5	
LC21375A	150,000	364	0.7	3 to 5.5	
LC21444A	177,000	396	0.7	3 to 5.5	
LC21602A	241,000	460	0.7	3 to 5.5	
LC21003B	1,000	48	0.7	3 to 5.5	
LC21006B	2,000	64	0.7	3 to 5.5	
LC21011B	4,000	80	0.7	3 to 5.5	
LC21018B	7,000	100	0.7	3 to 5.5	
LC21033B	13,000	128	0.7	3 to 5.5	
LC21041B	16,000	144	0.7	3 to 5.5	
LC21050B	20,000	160	0.7	3 to 5.5	
LC21063B	25,000	176	0.7	3 to 5.5	
LC21075B	30,000	192	0.7	3 to 5.5	
LC21090B	36,000	208	0.7	3 to 5.5	
LC22004A	1,000	48	0.5	3 to 3.6	0.6 μm SOG Suitable for realizing large-scale LSI systems 5 V interface supported Interface with general-purpose CAD tools (CADENCE, Mentor, View Logic) RAM/ROM mountable
LC22008A	3,000	64	0.5	3 to 3.6	
LC22014A	5,000	80	0.5	3 to 3.6	
LC22024A	9,000	100	0.5	3 to 3.6	
LC22043A	17,000	128	0.5	3 to 3.6	
LC22055A	22,000	144	0.5	3 to 3.6	
LC22068A	27,000	160	0.5	3 to 3.6	
LC22086A	34,000	176	0.5	3 to 3.6	
LC22101A	40,000	192	0.5	3 to 3.6	
LC22123A	49,000	208	0.5	3 to 3.6	
LC93013A	1,300	48	0.9	3 to 5.5	Powerful CAD support system using an advanced engineering workstation for all design operations, from schematic capture through circuit verification Full support for standard logic—more than 100 logic cell types and 200 macro equivalents for 74-series TTL and 4000/4500 series CMOS logic Over 30 input/output cell types, including Schmitt trigger inputs for oscillators, analog switches and others Flexible customer—manufacturer interface. Orders are accepted at any stage from schematic through electronic data. Convenient design house and design center locations Pin-compatible with Sanyo standard cells (except LC21000 series) Memory, microcontroller peripheral function cells and others
LC93019A	1,900	56	0.9	3 to 5.5	
LC93028A	2,800	68	0.9	3 to 5.5	
LC93043A	4,300	86	0.9	3 to 5.5	
LC93057A	5,700	100	0.9	3 to 5.5	
LC93080A	8,000	120	0.9	3 to 5.5	
LC93110A	11,000	144	0.9	3 to 5.5	
LC93150A	15,000	166	0.9	3 to 5.5	
LC93220A	22,000	208	0.9	3 to 5.5	
LC93260A	26,000	228	0.9	3 to 5.5	
LC93300A	30,000	252	0.9	3 to 5.5	

\* 2-input NAND, LC93000 and LC21000 series are of SOG type.

† 2-input NAND, fanout = 2, AI = 2 mm (typ)

Note: Refer to the gate array catalog for package dimensions.