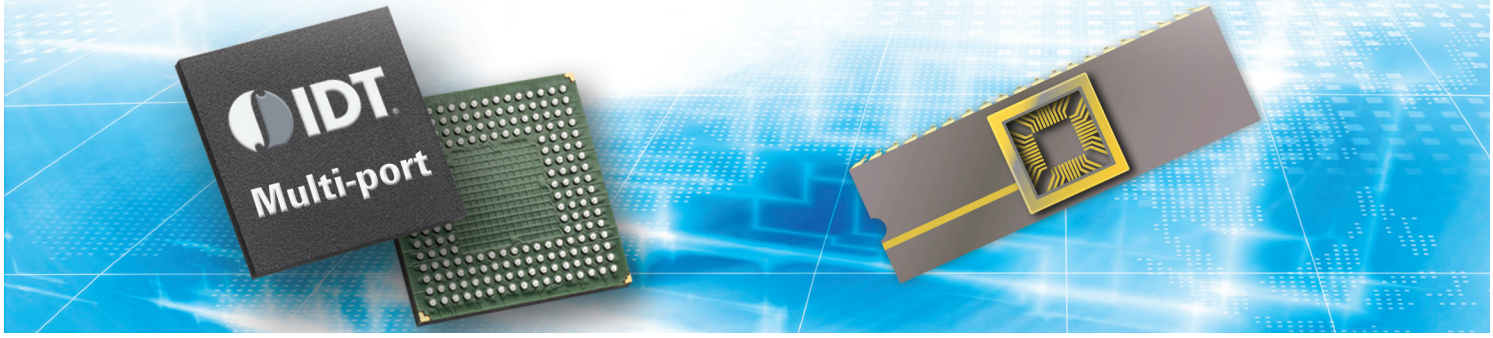
Multiport Memory Products

IDT is the industry's leading supplier of multi-port memories, offering the most comprehensive and highest-performance products available.

The IDT Multi-Port Memories portfolio, aimed at the communications market includes more than 125 types of asynchronous and synchronous dual-ports, four-ports and bank-switchable dual-ports ideal for switches, routers, hubs, equipment control, fibre channel line cards and RAID controllers.



ASYNCHRONOUS DUAL-PORT RAM BENEFITS

- Increased bandwidth (~2x SRAM)
- Reduced design complexity
- Shorter time to market
- Solves bus matching issues from x8, x9, x16, x18 up to x36 bit bus widths
- Allows mismatched voltage parts to be used together. 1.8V, 2.5V 3.3V and 5V I/O's can be adapted
- Buffers component speed mismatch from DC to 10nS
- 8 Kb to 18 Mb densities allow a wide range of applications

What is a multi-port device? Multi-ports integrate memory and control logic to enable simultaneous access to a common central memory through two or four independent connections (Dual-ports and FourPorts).

Asynchronous Dual-Port RAMs — Integrated Device Technology is the leading Dual-port Ram supplier, integrating systems design experience together with high-performance circuit and Dual-port SRAM technology expertise to define Dual-port Ram products.

IDT asynchronous Dual-port memories with non-clocked control, inputs and outputs are the industry standards, with innovative features and speeds that provide superior value and performance to system level designs. IDT Dual-port memories feature simultaneous access capability, with a number of arbitration techniques available to the designer to prevent contention and system wait states. On-chip hardware arbitration, semaphore token passing and software arbitration allow the designer to select the most effective Dual-port memory for the application.

IDT is continuously working to reduce the cost of high performance shared SRAM based Dual-port memory solutions. We are and will continue to be the leading provider of Dual-port synchronous and asynchronous memories in the semiconductor industry.

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	Access Time (ns)	Temp. Range	Organization	Function
7005	5	8	64	FP68, GU68, PL68, PLG68, PN64, PNG64	5.0 V TTL	15, 17, 20, 25, 35, 45, 55, 70	I, M, C	8K x 8	Busy, Interrupt, Semaphore, Master, Slave
7006	5	8	128	FP68, GU68, PL68, PLG68, PN64, PNG64	5.0 V TTL	15, 17, 20, 25, 35, 45, 55, 70	I, M, C	16K x 8	Busy, Interrupt, Semaphore, Master, Slave
7007	5	8	256	GU68, PL68, PLG68, PN80, PNG80	5.0 V TTL	15, 20, 25, 35, 55	I, C	32K x 8	Busy, Interrupt, Semaphore, Master, Slave
7008	5	8	512	GU84, PL84, PLG84, PN100, PNG100	5.0 V TTL	15, 20, 25, 35, 55	I, C	64K x 8	Busy, Interrupt, Semaphore, Master, Slave
7009	5	8	1024	PN100, PNG100	5.0 V TTL	15, 20	I, C	128K x 8	Busy, Interrupt, Semaphore, Master, Slave
70121	5	9	18	PL52, PLG52	5.0 V TTL	25, 35, 55	I, C	2K x 9	Busy, Interrupt, Master

ASYNCHRONOUS DUAL-PORT RAMS

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	Access Time (ns)	Temp. Range	Organization	Function
70125	5	9	18	PL52, PLG52	5.0 V TTL	25, 35, 55	I, C	2K x 9	Busy, Interrupt, Slave
7014	5	9	36	PL52, PLG52, PN64, PNG64	5.0 V TTL	12, 15, 20, 25	I, C	4K x 9	Output enable
7015	5	9	72	GU68, PL68, PLG68, PN80, PNG80	5.0 V TTL	12, 15, 17, 20, 25, 35	I, C	8K x 9	Busy, Interrupt, Semaphore, Master, Slave
7016	5	9	144	PL68, PLG68, PN80, PNG80	5.0 V TTL	12, 15, 20, 25, 35	I, C	16K x 9	Busy, Interrupt, Semaphore, Master, Slave
7019	5	9	1152	PN100, PNG100	5.0 V TTL	15, 20	I, C	128K x 9	Busy, Interrupt, Semaphore, Master, Slave
7024	5	16	64	FP84, GU84, PL84, PLG84, PN100, PNG100	5.0 V TTL	15, 17, 20, 25, 30, 35, 45, 55, 70	I, M, C	4K x 16	Busy, Interrupt, Semaphore, Master, Slave
7025	5	16	128	FP84, GU84, PL84, PLG84, PN100, PNG100	5.0 V TTL	15, 17, 20, 25, 30, 35, 45, 55, 70	I, M, C	8K x 16	Busy, Interrupt, Semaphore, Master, Slave
70261	5	16	256	PN100, PNG100	5.0 V TTL	15, 20, 25, 35, 55	I, C	16K x 16	Busy, Interrupt, Semaphore, Master, Slave
7026	5	16	256	GU84, PL84	5.0 V TTL	15, 20, 25, 35, 55	I, M, C	16K x 16	Busy, Interrupt, Semaphore, Master, Slave
7027	5	16	512	GU108, PN100, PNG100	5.0 V TTL	15, 20, 25, 35, 55	I, C	32K x 16	Interrupt
7028	5	16	1024	PN100, PNG100	5.0 V TTL	15, 20	I, C	64K x 16	Busy, Interrupt, Semaphore, Master, Slave
7034	5	18	72	PN100, PNG100	5.0 V TTL	15, 20	I, C	4K x 18	Busy, Interrupt, Semaphore, Master, Slave
7035	5	8, 18	144	PN100, PNG100	5.0 V TTL	15, 20	I, C	8K x 18	Busy, Interrupt, Semaphore, Master, Slave
7037	5	18	576	PN100, PNG100	5.0 V TTL	15, 20	I, C	32K x 18	Busy, Interrupt, Semaphore, Master, Slave
7038	5	18	1152	PN100, PNG100	5.0 V TTL	15,20	I, C	64K x 18	Busy, Interrupt, Semaphore, Master, Slave
5962-86875	5	8	8	FP48, LC48, SB48	5.0 V TTL	35, 45, 55, 70, 90	M	1K x 8	Busy, Interrupt, Master, Slave
5962-87002	5	8	16	FP48, LC48, SB48	5.0 V TTL	35, 45, 55, 70, 90	M	2K x 8	Busy, Master, Slave
5962-88610	5	16	32	FP68, GU68	5.0 V TTL	55, 70, 90	M	2K x 16	Busy, Master, Slave
5962-88665	5	16	32	FP68, GU68	5.0 V TTL	35, 45, 55, 70, 90	M	2K x 16	Busy, Master, Slave
5962-89764	5	8	32	FP48, LC48, SB48	5.0 V TTL	35, 45, 55, 70	M	4K x 8	Chip enable, Output enable
5962-91508	5	8	128	FP68, GU68	5.0 V TTL	20, 25, 35, 45, 55, 70	M	16K x 8	Busy, Interrupt, Semaphore, Master, Slave
5962-91617	5	16	128	FP84, GU84	5.0 V TTL	35, 45, 55, 70	M	8K x 16	Busy, Interrupt, Semaphore, Master, Slave
5962-91662	5	16	64	FP84, GU84	5.0 V TTL	20, 35, 45, 55, 70	M	4K x 16	Busy, Interrupt, Semaphore, Master, Slave
70V05	3.3	8	64	PL68, PLG68, PN64, PNG64	3.3 V LVTTL	15, 20, 25, 35, 55	I, C	8K x 8	Interrupt
70V06	3.3	8	128	PL68, PLG68, PN64, PNG64	3.3 V LVTTL	15, 20, 25, 35, 55	I, C	16K x 8	Interrupt
70V07	3.3	8	256	GU68, PL68, PN80, PNG80, DLG68	3.3 V LVTTL	25, 35, 55	I, C	32K x 8	Busy, Interrupt, Semaphore, Master, Slave
70V08	3.3	8	512	PN100, PNG100	3.3 V LVTTL	15, 20, 25, 35	I, C	64K x 8	Busy, Interrupt, Semaphore, Master, Slave

ASYNCHRONOUS DUAL-PORT RAMS

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	Access Time (ns)	Temp. Range	Organization	Function
70V09	3.3	8	1024	PN100, PNG100	3.3 V LVTTL	15, 20	I, C	128K x 8	Busy, Interrupt, Semaphore, Master, Slave
70V18	3.3	9	576	PN100, PNG100	3.3 V LVTTL	15, 20	I, C	64K x 9	Busy, Interrupt, Semaphore, Master, Slave
70V24	3.3	16	64	PL84, PN100, PNG100	3.3 V LVTTL	15, 20, 25, 35, 55	I, C	4K x 16	Interrupt, Semaphore, Master, Slave
70V25	3.3	16	128	PL84, PN100, PNG100	3.3 V LVTTL	15, 20, 25, 35, 55	I, C	8K x 16	Busy, Interrupt, Semaphore, Master, Slave
70V261	3.3	16	256	PN100, PNG100	3.3 V LVTTL	25, 35, 55	I, C	16K x 16	Busy, Interrupt, Semaphore, Master, Slave
70V26	3.3	16	256	GU84, PL84, PLG84	3.3 V LVTTL	25, 35, 55	I, C	16K x 16	Busy, Interrupt, Semaphore, Master, Slave
70V27	3.3	16	512	PN100, PNG100	3.3 V LVTTL	15, 20, 25, 35, 55	I, C	32K x 16	Busy, Interrupt, Semaphore, Master, Slave
70V28	3.3	16	1024	PN100, PNG100	3.3 V LVTTL	15, 20	I, C	64K x 16	Busy, Interrupt, Semaphore, Master, Slave
70V34	3.3	18	72	PN100, PNG100	3.3 V LVTTL	15, 20, 25	I, C	4K x 18	Busy, Interrupt, Semaphore, Master, Slave
70V35	3.3	18	144	PN100, PNG100	3.3 V LVTTL	15, 20, 25	I, C	8K x 18	Busy, Interrupt, Semaphore, Master, Slave
70V37	3.3	18	576	PN100, PNG100	3.3 V LVTTL	15, 20	I, C	32K x 18	Busy, Interrupt, Semaphore, Master, Slave
70V38	3.3	18	1152	PN100, PNG100	3.3 V LVTTL	15, 20	I, C	64K x 18	Busy, Interrupt, Semaphore, Master, Slave
70V631	3.3	18	4608	BC256, BCG256, BF208, BFG208, PK128, PKG128	3.3 V LVTTL	10, 12, 15	I, C	256K x 18	Busy, Interrupt, JTAG, Master, Slave
70V639	3.3	18	2304	BC256, BCG256, BF208, BFG208, PK128, PKG128	3.3 V LVTTL	10, 12, 15	I, C	128K x 18	Busy, Interrupt, JTAG, Master, Slave
70V657	3.3	36	1152	BC256, BCG256, BF208, BFG208, DR208, DRG208	3.3 V LVTTL	10, 12, 15	I, C	32K x 36	Interrupt
70V658	3.3	36	2304	BC256, BCG256, BF208, BFG208, DR208, DRG208	3.3 V LVTTL	10, 12, 15	I, C	64K x 36	Busy, Interrupt, JTAG, Semaphore, Master, Slave
70V659	3.3	36	4608	BC256, BCG256, BF208, BFG208, DR208, DRG208	3.3 V LVTTL	10, 12, 15	I, C	128K x 36	Busy, Interrupt, JTAG, Semaphore, Master, Slave
7130	5	8	8	FP48, LC48, PD48, PDG48, PL52, PLG52, PN64, PNG64, PP64, PPG64, SB48	5.0 V TTL	20, 25, 35, 55, 100	I, M, C	1K x 8	Busy, Interrupt, Master
71321	5	8	16	PL52, PLG52, PN64, PNG64, PP64, PPG64	5.0 V TTL	20, 25, 35, 45, 55	I, C	2K x 8	Busy, Interrupt, Master
7132	5	8	16	FP48, LC48, PD48, PDG48, PL52, PLG52, SB48	5.0 V TTL	20, 25, 35, 55, 100	I, M, C	2K x 8	Busy, Master
7133	5	16	32	FP68, GU68, PL68, PLG68, PN100, PNG100	5.0 V TTL	20, 25, 35, 45, 55, 70, 90	I, M, C	2K x 16	Busy, Master
71342	5	8	32	PL52, PLG52, PN64, PNG64	5.0 V TTL	20, 25, 35, 45, 55, 70	I, C	4K x 8	Semaphore
7134	5	8	32	FP48, LC48, PD48, PDG48, PL52, PLG52, SB48	5.0 V TTL	20, 25, 35, 45, 55, 70	I, M, C	4K x 8	Chip enable, Output enable
7140	5	8	8	FP48, LC48, PD48, PDG48 PL52, PLG52, PN64, PNG64, SB48	5.0 V TTL	20, 25, 35, 55, 100	I, M, C	1K x 8	Busy, Interrupt, Slave

ASYNCHRONOUS DUAL-PORT RAMS

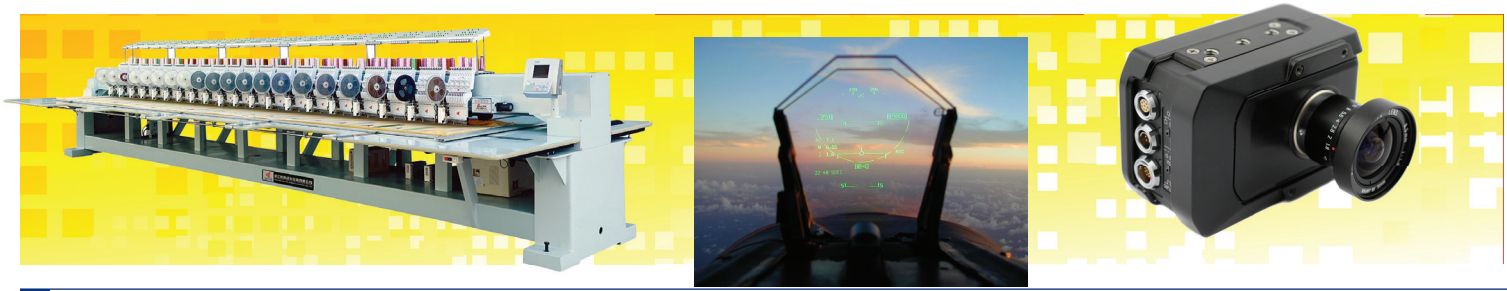
Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	Access Time (ns)	Temp. Range	Organization	Function
71421	5	8	16	PL52, PLG52, PN64, PNG64	5.0 V TTL	20, 25, 35, 55	I, C	2K x 8	Busy, Interrupt, Slave
7142	5	8	16	LC48, PD48, PDG48, PL52, PLG52, SB48	5.0 V TTL	20, 25, 35, 55, 100	I, M, C	2K x 8	Busy, Slave
7143	5	16	32	FP68, GU68, PL68, PLG68, PN100, PNG100	5.0 V TTL	20, 25, 35, 55, 70, 90	I, M, C	2K x 16	Busy, Slave
71V30	3.3	8	8	PP64, PPG64	3.3 V LVTTL	25, 35, 55	I, C	1K x 8	Busy, Interrupt, Master
71V321	3.3	8	16	PL52, PLG52, PN64, PNG64, PP64, PPG64	3.3 V LVTTL	25, 35, 55	I, C	2K x 8	Busy, Interrupt, Master

Bank-Switchable Dual-Port RAMs — IDT synchronous Bank-Switchable Dual Ported RAMS offer increased density while retaining many of the features of true dual-ports including access to the shared array, separate clocks per port, 166 MHz operating speed, full-boundary counters, and pinouts compatible with the dual-port family.

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	I/O Frequency (MHz)	Temp. Range	Organization	Function	Output Type
70V7319	3.3	18	4608	BC256, BCG256, BF208, BFG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	256K x 18	JTAG	Pipelined, Flowthrough
70V7339	3.3	18	9216	BC256, BCG256, BF208, BFG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	512K x 18	JTAG	Pipelined, Flowthrough
70V7519	3.3	36	9216	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	256K x 36	JTAG	Pipelined, Flowthrough
70V7599	3.3	36	4608	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	128K x 36	JTAG	Pipelined, Flowthrough

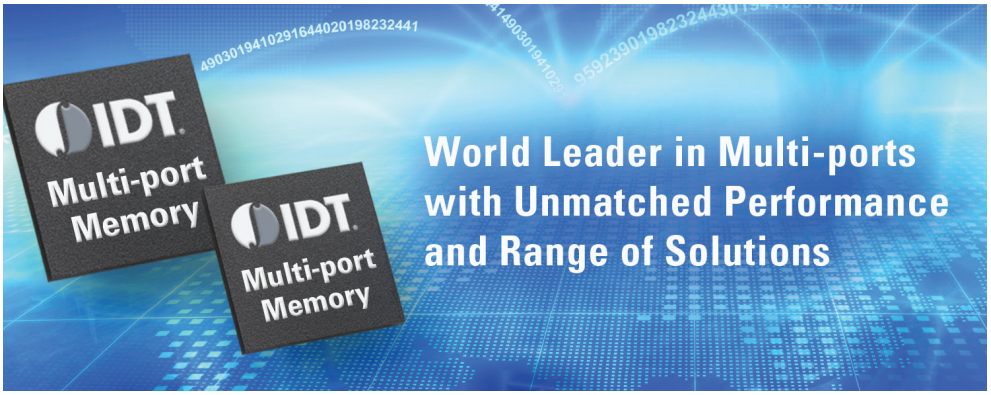
FourPort RAMs — IDT Four-Port RAMs are cost-effective low-power multi-ports that provide maximum functionality while taking up minimum board space.

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	I/O Frequency (MHz)	Temp. Range	Organization	Function	Output Type
7050	5	8	8	GU108	5.0 V TTL	100, 133, 166, 200	I, C	1K x 8	Busy	Pipelined, Flowthrough
7052	5	8	16	GU108, PNG120	5.0 V TTL	100, 133, 166, 200	I, M, C	2K x 8	Busy	Pipelined, Flowthrough
7054	5	8	32	PK128, PKG128	5.0 V TTL	100, 133, 166, 200	I, C	4K x 8	Busy	Pipelined, Flowthrough
70V5388	3.3	18	1152	BC256, BCG256, BG272	3.3 V LVTTL	100, 133, 166, 200	I, C	64K x 18	Counters, Interrupt, Fourport	Pipelined, Flowthrough



ASYNCHRONOUS LOW-POWER DUAL-PORT RAM BENEFITS

- True Dual-Ported memory cells which allow simultaneous reads of the same memory location
- 1.8V core voltage (significantly reduces power consumption)
- ADM (address/data multiplexed interface)
- Standard SRAM interface
- Organizations: 4K x 16 (64K) / 8K x 16 (128K) / 16K x 16 (256K)
- Low operating and standby currents: 15 mA (typ.) operating current / 2 µA (typ.) standby current
- Multiple voltage configurations (1.8V, 2.5V and 3.0V)
- Power supply isolation functionality to aid system power management
- Input Read and Output Drive registers
- Small packages (6x6x1mm , 0.5mm-pitch fpBGA100 / 5x5x1mm, 0.5mm-pitch fpBGA81)
- Reduced design complexity
- Shorter time-to-market



Asynchronous Low-Power Dual-Port RAMs — IDT is a leading low-power dual-port RAM supplier, integrating low voltage design expertise together with high-performance circuit and dual-port SRAM technology.

An asynchronous low-power dual-port is a memory with non-clocked inputs and outputs for data, address, and control functions based on a low 1.8V core voltage for ultra-low power consumption.

Our family of low-power dual-port memories set the industry-standard, with innovative features and speeds that provide superior value and performance to system-level designs. IDT dual-port memories feature simultaneous access capability, with a number of arbitration techniques available to the designer to prevent contention and system wait states.

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	Access Time (ns)	Temp. Range	Organization	Function
70P244	1.8	16	64	BYG81	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	40, 55	I	4K x 16	Interrupt, Std. SRAM Interface
70P245	1.8	16	64	BYG100	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	65	I	4K x 16	ADM Interface, Busy, Input Read Register, Interrupt, Output Drive Register, Std.SRAM Interface
70P249	1.8	16	64	BYG100	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	65, 90	I	4K x 16	ADM Interface, Busy, Input Read Register, Interrupt, Output Drive Register, Std.SRAM Interface
70P254	1.8	16	128	BYG81	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	40, 55	I	8K x 16	Interrupt, Std. SRAM Interface
70P255	1.8	16	128	BYG100	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	65, 90	I	8K x 16	ADM Interface, Busy, Input Read Register, Interrupt, Output Drive Register, Std.SRAM Interface
70P259	1.8	16	128	BYG100	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	65, 90	I	8K x 16	ADM Interface, Busy, Input Read Register, Interrupt, Output Drive Register, Std.SRAM Interface
70P264	1.8	16	256	BYG81	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	40, 55	I	16K x 16	Interrupt, Std. SRAM Interface
70P265	1.8	16	256	BYG100	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	65	I	16K x 16	ADM Interface, Busy, Interrupt, Output Drive Register, Std. SRAM Interface
70P269	1.8	16	256	BYG100	1.8V LVCMOS, 2.5V LVCMOS, 3.0V LVTTL	65, 90	I	16K x 16	ADM Interface, Busy, Interrupt, Output Drive Register, Std. SRAM Interface

SYNCHRONOUS DUAL-PORT RAM BENEFITS

- Increased bandwidth - Dual-ports deliver 2x the speed of similar SRAMs
- Reduced design complexity by solving inter-chip connection issues
- Improved time-to-market by using proven off the shelf devices
- Solves voltage, bus speed, and bus width mismatch issues
- Densities range from 8 Kb up to 36 Mb, allowing a wide range of applications

Synchronous Dual-Port RAMs— IDT Synchronous Dual-Port RAM memory cells allow access to simultaneous access of address from both ports.

Integrated Device Technology is the leading Synchronous Multiport Ram supplier, effectively bringing systems design experience together with high-performance circuit and Multiport SRAM technology expertise to define synchronous and asynchronous Dual-Port and FourPort Ram products.

Our family of Dual-Port memories are the industry standards, with innovative features and speeds that provide superior value and performance to system level designs. IDT Dual-Port memories feature simultaneous access capability, with a number of arbitration techniques available to the designer to prevent contention and system wait states. On-chip hardware arbitration, semaphore token passing and software arbitration allow the designer to select the most efficient Dual-port memory for the application.

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	I/O Frequency (MHz)	Temp. Range	Organization	Function	Output Type
709079	5	8	256	PN100, PNG100	5.0 V TTL	40, 50, 67	I, C	32K x 8	Counters, Dual Clocks	Flowthrough, Pipelined
709089	5	8	512	PN100, PNG100	5.0 V TTL	40, 50, 67	I, C	64K x 8	Counters, Dual Clocks	Pipelined, Flowthrough
709099	5	8	1024	PN100, PNG100	5.0 V TTL	50, 67, 83	I, C	128K x 8	Counters, Dual Clocks	Pipelined, Flowthrough
709149	5	9	36	PN80, PNG80	5.0 V TTL	125	I, C	4K x 9	Dual Clocks	Pipelined, Flowthrough
70914	5	9	36	PL68, PLG68, PN80, PNG80	5.0 V TTL	40, 50, 63	I, C	4K x 9	Dual Clocks	Flowthrough
709159	5	9	72	PN100, PNG100	5.0 V TTL	67, 83, 100	I, C	8K x 9	Counters, Dual Clocks	Pipelined, Flowthrough
709269	5	16	256	PN100, PNG100	5.0 V TTL	40, 50, 67	I, C	16K x 16	Counters, Dual Clocks	Pipelined, Flowthrough
709279	5	16	512	PN100, PNG100	5.0 V TTL	40, 50, 67	I, C	32K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
709289	5	16	1024	PN100, PNG100	5.0 V TTL	50, 67, 83	I, C	64K x 16	Counters, Dual Clocks	Pipelined, Flowthrough
709349	5	18	72	PN100, PNG100	5.0 V TTL	67, 83, 100	I, C	4K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
709359	5	18	144	PN100, PNG100	5.0 V TTL	67, 83, 100	I, C	8K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
709369	5	18	288	PN100, PNG100	5.0 V TTL	50, 67, 83	I, C	8K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
709379	5	18	576	PN100, PNG100	5.0 V TTL	50, 67, 83	I, C	32K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
70T3319	2.5	18	4608	BC256, BCG256, BF208, BFG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	256K x 18	Collision Detect, Counters, Dual Clocks, Interrupt, JTAG, Sleep Mode	Pipelined, Flowthrough
70T3339	2.5	18	9216	BC256, BCG256, BF208, BFG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	512K x 18	Collision Detect, Counters, Dual Clocks, Interrupt, JTAG, Sleep Mode	Pipelined, Flowthrough
70T3399	2.5	18	2304	BC256, BCG256, BF208, BFG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	128K x 18	Collision Detect, Counters, Dual Clocks, Interrupt, JTAG, Sleep Mode	Pipelined, Flowthrough
70T3509M	2.5	36	36864	BP256, BPG256	2.5 V LVTTL, 3.3 V LVTTL	133	I, C	1024K x 36	Interrupt, Sleep Mode	Pipelined, Flowthrough
70T3519	2.5	36	9216	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	256K x 36	Collision Detect, Counters, Dual Clocks, Interrupt, JTAG, Sleep Mode	Pipelined, Flowthrough
70T3539M	2.5	36	18432	BC256, BCG256	2.5 V LVTTL, 3.3 V LVTTL	133, 166	I, C	512K x 36	Counters, Dual Clocks, Interrupt, Sleep Mode	Pipelined, Flowthrough

SYNCHRONOUS DUAL-PORT RAMS

Part Number	Core Voltage (V)	Bus Width (bits)	Density (Kb)	Pkg. Code	I/O Type	I/O Frequency (MHz)	Temp. Range	Organization	Function	Output Type
70T3589	2.5	36	2304	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	64K x 36	Collision Detect, Counters, Dual Clocks, Interrupt, JTAG, Sleep Mode	Pipelined, Flowthrough
70T3599	2.5	36	4608	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166, 200	I, C	128K x 36	Collision Detect, Counters, Dual Clocks, Interrupt, JTAG, Sleep Mode	Pipelined, Flowthrough
70T3719M	2.5	72	256	BBG324	2.5 V LVTTL, 3.3 V LVTTL	133	I, C	256K x 72	Collision Detect, Interrupt, Sleep Mode	Pipelined, Flowthrough
70T3799M	2.5	72	9216	BBG324	2.5 V LVTTL, 3.3 V LVTTL	133, 166	I, C	128K x 72	Collision Detect, Interrupt, Sleep Mode	Pipelined, Flowthrough
70V3319	3.3	18	4608	BC256, BCG256, BF208, BFG208, PK128, PKG128	2.5 V LVTTL, 3.3 V LVTTL	133, 166	I, C	256K x 18	Counters, Dual Clocks, JTAG	Pipelined, Flowthrough
70V3379	3.3	18	576	BC256, BCG256, BF208, BFG208, PK128, PKG128	2.5 V LVTTL, 3.3 V LVTTL	100, 133	I, C	32K x 18	Counters, Dual Clocks	Pipelined
70V3389	3.3	18	1152	BC256, BCG256, BF208, BFG208, PK128, PKG128	2.5 V LVTTL, 3.3 V LVTTL	100, 133	I, C	64K x 18	Counters, Dual Clocks	Pipelined
70V3399	3.3	18	2304	BC256, BCG256, BF208, BFG208, PK128, PKG128	2.5 V LVTTL, 3.3 V LVTTL	133, 166	I, C	128K x 36	Counters, Dual Clocks, JTAG	Pipelined, Flowthrough
70V3569	3.3	36	576	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	100, 133	I, C	16K x 36	Counters, Dual Clocks	Pipelined
70V3579	3.3	36	1152	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	100, 133	I, C	32K x 36	Counters, Dual Clocks	Pipelined
70V3589	3.3	36	2304	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166	I, C	64K x 36	Counters, Dual Clocks, JTAG	Pipelined, Flowthrough
70V3599	3.3	36	4608	BC256, BCG256, BF208, BFG208, DR208, DRG208	2.5 V LVTTL, 3.3 V LVTTL	133, 166	I, C	128K x 36	Counters, Dual Clocks, JTAG	Pipelined, Flowthrough
70V9079	3.3	8	256	PN100, PNG100	3.3 V LVTTL	50, 67, 83, 100	I, C	32K x 8	Counters, Dual Clocks	Pipelined, Flowthrough
70V9089	3.3	8	512	PN100, PNG100	3.3 V LVTTL	40, 50, 67	I, C	64K x 8	Counters, Dual Clocks	Pipelined, Flowthrough
70V9099	3.3	18	576	PN100, PNG100	3.3 V LVTTL	50, 67, 83, 100	I, C	32K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
70V9159	3.3	9	72	PN100, PNG100	3.3 V LVTTL	67, 83, 100	I, C	8K x 9	Counters, Dual Clocks	Pipelined, Flowthrough
70V9169	3.3	9	144	PN100, PNG100	3.3 V LVTTL	67, 83, 100	I, C	16K x 9	Counters, Dual Clocks	Pipelined, Flowthrough
70V9179	3.3	9	288	PN100, PNG100	3.3 V LVTTL	50, 67, 83	I, C	32K x 9	Counters, Dual Clocks	Pipelined, Flowthrough
70V9199	3.3	9	1152	PN100, PNG100	3.3 V LVTTL	50, 67, 83	I, C	128K x 9	Counters, Dual Clocks	Pipelined, Flowthrough
70V9269	3.3	16	256	PK128, PKG128	3.3 V LVTTL	40, 50, 67, 83, 100	I, C	16K x 16	Counters, Dual Clocks	Pipelined, Flowthrough
70V9279	3.3	16	512	PK128, PKG128	3.3 V LVTTL	50, 67, 83, 100	I, C	32K x 16	Counters, Dual Clocks	Pipelined, Flowthrough
70V9289	3.3	16	1024	PK128, PKG128	3.3 V LVTTL	50, 67, 83	I, C	64K x 16	Counters, Dual Clocks	Pipelined, Flowthrough
70V9359	3.3	18	144	PN100, PNG100	3.3 V LVTTL	67, 83, 100	I, C	8K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
70V9369	3.3	18	288	PN100, PNG100	3.3 V LVTTL	50, 67, 83, 100	I, C	16K x 18	Counters, Dual Clocks	Pipelined, Flowthrough
70V9389	3.3	18	1152	PK128, PKG128	3.3 V LVTTL	50, 67, 83, 100	I, C	64K x 18	Counters, Dual Clocks	Pipelined, Flowthrough

PACKAGE KEY

Package Code (Use for Package Search)	Package Description	Pin Count	Description	Pb or Green	Top Mark	Dimensions				Devices Per Reel	Devices Per Tray/ Tube	Class
						Pitch (mm)	Length (mm)	Width (mm)	Thickness (mm)			
BA256	CABGA	256	Chip Array BGA 17 x 1.7.0 mm x 1.0 mm	Pb	BA	1.00	17.00	17.00	1.70	1000	90	Plastic
BBG324	PBGA	324	PBGA 19 x 19mm x 1 mm	Green	BBG	1.00	19.00	19.00	1.76	750	84	Plastic
BC256, BCG256	CABGA	256	Chip Array BGA 17 x 1.7.0 mm x 1.0 mm	Pb, Green	BC, BCG	1.00	17.00	17.00	1.40	1000	90	Plastic
BF208, BFG208	CABGA	208	Chip Array BGA 15 x 15 mm x 0.8 mm	Pb, Green	BF, BFG	0.80	15.00	15.00	1.40	1000	126	Plastic
BG272, BGG272	PBGA	272	PBGA 27 x 27 mm x 1.27 mm	Pb, Green	BG, BGG	1.27	27.00	27.00	2.00	250	40	Plastic
BP256, BPG256	CABGA	256	Chip Array BGA 17 x 17 mm x 1.0 mm	Pb, Green	BP, BPG	1.00	17.00	17.00	1.76	1000	90	Plastic
BYG81	CABGA	81	Chip Array BGA 5 x 5 mm x 0.5 mm	Green	BYG	0.50	5.00	5.00	1.00	3000	490	Plastic
BYG100	CABGA	100	Chip Array BGA 6 x 6 mm x 0.5 mm	Green	BYG	0.50	6.00	6.00	1.00	3000	360	Plastic
DR208, DRG208	PQFP	208	PQFP 28 x 28 x 3.5 mm w/drop in heat	Pb, Green	DR, DRG	0.50	28.00	28.00	3.50	-	24	Plastic
FP48	FPACK	48	FlatPack	Pb	F	1.27	19.00	19.00	2.20	-	9	Hermetic
FP68	FPACK	68	FlatPack	Pb	F	1.27	24.00	24.00	2.00	-	9	Hermetic
FP84	FPACK	84	FlatPack	Pb	F	1.27	29.20	29.21	2.54	-	6	Hermetic
GD68	PGA	68	CGA CAV Down Small Outline	Pb	G	2.54	28.20	28.20	2.41	-	21	Hermetic
GU108	PGA	108	CGA CAV UP	Pb	G	2.54	30.48	30.48	3.68	-	21	Hermetic
GU121	PGA	121	CGA CAV UP	Pb	G	0.00	0.00	0.00	0.00	-	6	Hermetic
GU68	PGA	68	CGA CAV UP	Pb	G	2.54	29.46	29.46	3.68	-	21	Hermetic
GU84	PGA	84	CGA CAV UP	Pb	G	2.54	27.94	27.94	3.68	-	21	Hermetic
LC48	LCC	48	Leadless CC Std. Outline	Pb	L48	1.02	14.20	14.22	1.78	-	34	Hermetic
PD48, PDG48	PDIP	48	Plastic DIP 600 MIL	Pb, Green	P, PDG	2.54	61.70	15.24	3.80	-	7	Plastic
PK128, PKG128	TQFP	128	TQFP 14 x 20 x 1.4 mm	Pb, Green	PF, PFG	0.50	20.00	14.00	1.40	1000	72	Plastic
PL52, PLG52	PLCC	52	PLCC	Pb, Green	J, JG	1.27	19.00	19.00	3.63	400	24	Plastic
PL68, PLG68	PLCC	68	PLCC	Pb, Green	J, JG	1.27	24.00	24.00	3.63	250	18	Plastic
PL84, PLG84	PLCC	84	PLCC	Pb, Green	J, JG	1.27	29.21	29.21	3.63	200	15	Plastic
PN100, PNG100	TQFP	100	TQFP 14 x 14 x 1.4 mm	Pb, Green	PF, PFG	0.50	14.00	14.00	1.40	750	90	Plastic
PN120, PNG120	TQFP	120	TQFP 14 x 14 x 1.4 mm	Pb, Green	PF, PFG	0.40	14.00	14.00	1.40	750	90	Plastic
PN64, PNG64	TQFP	64	TQFP 14 x 14 x 1.4 mm	Pb, Green	PF, PFG	0.80	14.00	14.00	1.40	750	90	Plastic
PN80, PNG80	TQFP	80	TQFP 14 x 14 x 1.4 mm	Pb, Green	PF, PFG	0.65	14.00	14.00	1.40	750	90	Plastic
PP64, PPG64	TQFP	64	TQFP 10 x 10 x 1.4 mm	Pb, Green	TF, TFG	0.50	10.00	10.00	1.40	1250	160	Plastic
PPG52	TQFP	52	TQFP 10 x 10 x 1.4 mm	Green	PPG	0.65	10.00	10.00	1.40	1250	160	Plastic
SB48	SB	48	SideBraze 600 MIL	Pb	C	2.54	61.72	15.24	3.30	-	8	Hermetic
SB64	SB	64	SideBraze 600 MIL	Pb	C	2.54	82.29	22.86	3.56	-	6	Hermetic

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