

16/32-bit Microprocessor & Peripheral LSI

TLCS-68000 Family

X44

Type No.	Function	Frequency (MHz)	Package Type								Equivalent product		
			P	C	YC	Y	X	N	G	F		T	
TMP68000	16-bit MPU (internal 32-bit, external 16-bit)	8, 10, 12.5*	64	—	68	—	—	64	—	—	—	—	MC68000
TMP68HC000	CMOS 16-bit MPU	10, 12.5, 16.67	64	—	—	68	—	64	—	64	68	—	MC68HC000
TMP68010	16-bit virtual memory MPU	8, 10, 12.5	64	—	—	—	—	—	—	—	—	—	MC68010
TMP68020	32-bit MPU (internal 32-bit, external 32-bit)	12.5, 16.67, 20.25	—	—	144	—	—	—	—	132	—	—	MC68020
TMP68030	32-bit MPU with built-in memory management unit	16.67, 20.25, 33	—	—	128	—	—	—	—	132	—	—	MC68030
TMP68EC020	32-bit MPU (addressable up to 16M bytes)	16.67, 25	—	—	—	—	100	—	—	100	—	—	MC68EC020
TMP68230	Parallel interface/timer	8, 10	48	—	—	—	—	—	—	—	—	—	MC68230
TMP68450	4-channel DMA controller	8, 10	—	64	—	—	—	—	—	—	—	—	MC68450
TMP68681/2681	Dual universal synchronous receive/transmitter	1Mbit/s	40	—	—	—	—	—	—	—	—	—	MC68681
TMP68881	Floating-point numeric coprocessor	12.5, 16.67, 20.25	—	—	68	—	—	—	—	—	—	—	MC68881
TMP68901	Multi-function peripheral	4	48	—	—	—	—	—	—	—	—	—	MC68901

* : P and YC only for 12.5MHz

Note) Postfix P: Plastic standard DIP (DIP), C: Ceramic standard DIP (DIP), YC: PGA without standoff, Y: PGA with standoff, X: Plastic PGA, N: Plastic shrunk DIP (SDIP), G: Ceramic QFP, F: Plastic flat package, T: Plastic PLCC

TLCS-68000A Family (CMOS)

X44

Type	Function	DMA Controller	Chip Select Output	Interrupt		Timer	Serial (UART)	Frequency (MHz)	Power Source Voltage (V)	Operating temperature (°C)	Package
				External	Internal						
TMP68HC003F	Built-in clock generator Power down function	—	—	Same as 68HC000		—	—	12.5 8	4.75-5.25 2.7-5.25	-20-85	RFP80
TMP68301AF TMP68301AFR	Parallel: 16 bit (Centronics output possible)	—	2	10 ch	7 ch	16 bit x 3 ch	3 ch	12.5/ 16.67	4.75	0-70	QFP100 RFP100
*TMP68301AKF *TMP68301AKFR	Parallel: 16 bit	—	2	10 ch	7 ch	16 bit x 3 ch	3 ch	8	3.0-3.6	0-70	QFP100 RFP100
TMP68303F	Parallel: 10 bit Built-in DRAM controller Stepping motor controller: 2 ch x 4 phase Watchdog timer: 1 ch	3 ch	2	3 ch	9 ch	16 bit x 4 ch	2 ch	16.67	5V + 5%	0-70	QFP100
TMP68305F	Built-in clock generator	2 ch	4	4 ch	5 ch	16 bit x 1 ch	2 ch	16.67	5V + 5%	0-70	QFP100
TMP68204F	Parallel: Input 16, Output 24 I/O 16	1 ch	4	6 ch	9 ch	16 bit x 3 ch	2 ch	16.67	5V + 5%	0-70	QFP100

Note) Postfix F: Plastic flat package (QFP), FR: Rectangle flat package (RFP)