

TMP68HC05/11 Series (CMOS)

X44

Type	Function	ROM (byte)	EEPROM (byte)	RAM (byte)	I/O Port	Min. Instruction Execution Time(μs)	Power Supply Voltage (V)	Operating Temperature (°C)	Package
TMP68HC05C4P	Free run counter: 16 bit x 1 ch OC: 1 ch, IC: 1 ch Serial: 2 ch (synchronous, asynchronous)	416	—	176	31	0.96	3.0-5.5	0-70	DIP40 DIC40
TMP68HC11A8P/NT/**FRT/WT	A/D converter: 8 bit, 8 ch	8K	512	256	38				
TMP68HC11A1P/NT/**FRT/WT	Pulse accumulator: 8 bit x 1 ch	—	—		22	0.67			
TMP68HC11A0P/NT/**FRT/WT	Free run counter: 16 bit x 1 ch OC: 5 ch, IC: 3 ch		512						
TMP68HC11A1T-3 **TMP68HC11A1F-3	Serial: 2 ch (synchronous, asynchronous) Watchdog timer	—	—	512	0.96				
TMP68HC11A0T-3 **TMP68HC11A0F-3	Clock monitor reset Illegal operator code trap	—	—						
TMP68HP11A1T-A TMP68HP11A1P-A TMP68HCP11A1RT/WT	Watchdog timer enabled	—	512	512	0.96	4.5-5.5	-40-85 (Note) WT excluded	DIP48 PLCC52	
TMP68HC11E9NT/**FRT/WT	A/D converter: 8 bit, 8 ch	12K	—					38	
TMP68HC11E1NT/**FRT/WT	Pulse accumulator: 8 bit x 1 ch	—	—	22	0.67				
TMP68HC11E0NT/**FRT/WT	Free run counter: 16 bit x 1 ch OC: 5 ch, IC: 4 ch		512						
TMP68HC11E1T-3 **TMP68HC11E1F-3	Serial: 2 ch (synchronous, asynchronous) Watchdog timer	—	—	512	0.96				
TMP68HC11E0T-3 **TMP68HC11E0F-3	Clock monitor reset Illegal operator code trap	—	—						
TMP68HP11E1T-A TMP68HP11E1RT-WT	Watchdog timer enabled	—	512	38	0.63	-40-85 (Note) WT excluded	PLCC52		
**TMP68C711E9T	EPROM version or OTP version of 68HC11A8/EO	(12K)	—						
TMP68C711J6N/E/T	I/O- and ROM-enhanced version of 68HC11E9	(16K)	—	54	—	-40-85	SDIC64 PLCC68		

** : Under development, () EPROM or OTPROM capacity, OC: Output compare, IC: Input capture

Postfix — P: Plastic standard dual in-line package (DIP), F: Plastic flat package (QFP), N: Plastic shrink dual in-line package (SDIP).

D: Ceramic standard dual in-line package (DIC), T: Plastic leaded chip carrier (PLCC), E: Ceramic standard dual in-line package (SDIC).

16-Bit Microcontroller

TLCS-900 Series (CMOS)

X44

Type	Function	ROM (byte)	RAM (byte)	I/O Port	Min. Instruction Execution Time(μs)	Operating Temperature (°C)	Package	One-time PROM products (EPROM writer connection adapter)
TMP96C141F TMP96C141AF	Timer/counter: 16 bit x 2 ch Timer: 8 bit x 2 ch PWM timer: 8 bit x 2 ch Serial: 2 ch	—	1K	47	200	-20-70°C	QFP80	—
TMP96C041AF	Pattern generator: 4 bit x 2 ch A/D converter: 10 bit x 4 ch		0					
TMP96CM40F	Watchdog timer CS/WAIT controller	32K	1K	65	200 (Note)			TMP96PM40F
*TMP96C031N/F	Timer/counter: 16 bit x 1 ch Timer: 8 bit x 2 ch PWM timer: 8 bit x 2 ch Serial: 2 ch Pattern generator: 4 bit x 2 ch A/D converter: 8 bit x 4 ch DRAM controller Watchdog timer CS/WAIT controller	—	—	37	200		QFP64 SDIP64	—
*TMP96C081F	DMA controller: 4 ch Timer/counter: 16 bit x 2 ch Timer: 8 bit x 2 ch PWM timer: 8 bit x 2 ch Serial: 2 ch Pattern generator: 4 bit x 2 ch A/D converter: 10 bit x 6 ch Watchdog timer CS/WAIT controller	—	—	61	200		QFP100	—

* Underdevelopment, Please inquire about 20MHz development tools.

Note: Operating temperature: Minimum instruction execution time 200ns at -20-70°C and 250ns at -40-85°C guaranteed.

Postfix F: Plastic flat package (QFP)