

Development Tools & Starter Kits for 8/16/32-bit Microcontroller Families

MCU Family	Development Tool Chains	Order No.	
TLCS-870 (TMP87...)	Real-Time Emulator Model 10	BM1022R08	
	Emulation POD	MCU specific (BM...)	
	C/C-Like Compiler	SW87YN0-ZCE	
	Debugger	SW87DN9-ZCF	
TLCS-870/C (TMP88...)	High performance	RTE Model 15	BM1040R0A
		Interface Module	BMPS8A100010A
		Emulation Module	MCU specific (BMPS8A...)
		Emulation Chip	MCU specific (TMP88CS...)
		Target Connection Board	MCU specific (BMPS8D...)
	Low cost	RTE870/C Light Emulator	BMP88A300010A/20A/30A
		Prob set	MCU specific (AP...)
	C-Compiler	SW89CNO-ZCC	
	Integrated Development Environment (IDE)	SW00MNO-ZCC	
	TLCS-870/C1 (TMP89...)	On-chip Debug Emulator	BM1040R0A
Emulator		BMP88A300010A	
In-circuit Emulator		TMP89C300XB	
C-Compiler		SW89CNO-ZCC	
TLCS-870/X (TMP88...)	Integrated Development Environment (IDE)	SW00MNO-ZCC	
	Real-Time Emulator Model 15	BM1040R0A	
	Emulation POD	MCU specific (BM...)	
	Debugger	SW88DN9-ZFE	
TLCS-900/HH1/H2/LL1 (TMP8x...)	Real-Time Emulator	Model 15 BM1040R0A	
	Emulation POD	Model 25 BM1055R0B	
	C-Compiler & Assembler	MCU specific (BM...)	
	Integrated Development Environment (IDE)	SW96CNO-ZCC	
MCU	Starter Kits	Order No.	
TMP86FM29	64-pin 8-bit FLASH MCU on-chip LCD driver	IDE ROM Monitor for all Flash MCU Starter Kits Simulator debugger	BMSKTOPAS86FM29(A)
TMP86FM48	64-pin 8-bit MCU 32 kB FLASH	Flash programmer or OTP programmer Compiler lfd. version Application Notes Evaluation board	BMSKTOPAS86FM48(AND)
TMP86FH46	44-pin 8-bit MCUs 16 kB FLASH	Flash programmer or OTP programmer Compiler lfd. version Application Notes Evaluation board	BMSKTOPAS86FH47(AND)
TMP86FS49	64-pin 8-bit MCU 60 kB FLASH	Flash programmer or OTP programmer Compiler lfd. version Application Notes Evaluation board	BMSKTOPAS86FS49(A)
TMP86P202	20-pin 8-bit OTP MCU	Flash programmer or OTP programmer Compiler lfd. version Application Notes Evaluation board	BMSKTOPAS86P202(AND)
TMP86C40708	CD-ROM to evaluate Toshiba's low-power 8-bit MCUs and their on-chip peripherals	IDE Simulator debugger Compiler lfd. version Software examples	BMSKTOPAS870C(AND)
TMP86C4147	64-pin 16-bit MCU 128 kB FLASH	IDE ROM Monitor Simulator debugger Flash programmer Compiler lfd. version Software examples Evaluation board	BMSKTOPAS891FW27(A)
TMP91FY27	100-pin 16-bit MCU 256 kB FLASH	IDE ROM Monitor Simulator debugger Flash programmer Compiler lfd. version Software examples Evaluation board	BMSKTOPAS91FY42(A)
TMP92FD54	100-pin 32-bit MCU 512 kB FLASH	IDE ROM Monitor Simulator debugger Flash programmer Compiler lfd. version Software examples Evaluation board	BMSKTOPAS92FD54(H)
TMP94FD53	100-pin 32-bit MCU 512 kB FLASH	IDE ROM Monitor Simulator debugger Flash programmer Compiler lfd. version Software examples Evaluation board	BMSKTOPAS90H2(H)WU
TMP86FS49	64-pin 8-bit MCU 60 kB FLASH	MCU board piggy-backed and interchangeable on the Mother Board in Starter Kit, and can be used independently, with a cable and software CD-ROM.	Starter Kit: TSE-BORD-86FS49 MCU Board: TSE-TCPU-86FS49
TMP89FS60	64-pin 8-bit MCU 60 kB FLASH	MCU board piggy-backed and interchangeable on the Mother Board in Starter Kit, and can be used independently, with a cable and software CD-ROM.	Starter Kit: TSE-BORD-89FS60 MCU Board: TSE-TCPU-89FS60
TMP91FW60	100-pin 16-bit MCU 128 kB FLASH	MCU board piggy-backed and interchangeable on the Mother Board in Starter Kit, and can be used independently, with a cable and software CD-ROM.	Starter Kit: TSE-BORD-91FW60 MCU Board: TSE-TCPU-91FW60

ELECTRONIC COMPONENTS | embedded flash | low-power consumption | development tools | starter kits

8/16/32-bit Microcontrollers.

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Product No. Decoding

TMP cc R x ff M A P

- Package**
 - D Fine pitch or 1420/1212 pinout
 - N Shrink DIP
 - F Flat package QFP
 - U µflat package µQFP
 - M SOP
 - P DIP
 - V Ceramic
 - G Lead-free
- Automotive quality grade**
 - R Grade A, -40°C to +85°C
 - T Grade A, -40°C to +125°C
 - I Grade B, -40°C to +85°C
 - S Grade B, -40°C to +125°C
- Microcontroller revision**
- Microcontroller Family Type and Subtype**
 - 0v Standard
 - 1v VFT
 - 2v LCD driver
 - 3v OSD on screen display
 - 4v AD converter
 - 5v CAN controller
 - 6v AD converter
 - 7v VFT
 - 8v Automotive product
- ROM size**

x	z	4	8	H	K	M
kB	2	4	8	16	24	32
kB	48	60	96	128	256	512
- ROM Type**
 - C Mask
 - E EEPROM
 - F Flash
 - P OTP
- Microcontroller Core**
 - 05 TX19A 32-bit, 58 MIPS @ 56 MHz
 - 47 470 4-bit, 1000 ns @ 8 MHz
 - 86 870C 8-bit, 250 ns @ 16 MHz
 - 87 870 8-bit, 500 ns @ 8 MHz
 - 88 870X 8-bit, 200 ns @ 20 MHz
 - 89 870C1 8-bit, 125 ns @ 8 MHz
 - 91 900L1 16-bit, 160 ns @ 25 MHz, 1.8 V
 - 92 900H1 32-bit, 50 ns @ 20 MHz
 - 93 900L 16-bit, 200 ns @ 20 MHz, 2.7 V
 - 94 900H2 32-bit, 50 ns @ 20 MHz
 - 95 900H 16-bit, 160 ns @ 25 MHz

Toshiba Microcontroller

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