

Military Semiconductor Integrated Circuits

8-BIT MICROPROCESSORS & MICROCONTROLLERS 32-BIT CONTROLLERS AND PERIPHERALS

MIL-STD-883C

8-Bit Microprocessors, 32-Bit Controllers & Microcontrollers				883C Package Type and Lead Finish			
Device	883C	Description	Pins	DIL	FP	LCCC	CLCC
6800	/B	8-Bit Microprocessor	40	QA			
6802	/B	8-Bit Microprocessor with Clock and Optional RAM	40	QA			
6809	/B	8-Bit Microprocessor with Clock	40	QA			
68A09	/B	1.5 MHz 8-Bit Microprocessor with Clock	40	QA			
68B09	/B	2.0 MHz 8-Bit Microprocessor with Clock	40	QA			
6821	/B	8-Bit Peripheral Interface Adapter	40	QA			
68A21	/B	1.5 MHz 8-Bit Peripheral Interface Adapter	40	QA			
68B21	/B	12 MHz 8-Bit Peripheral Interface Adapter	40	QA			
6840	/B	Programmable Timer Module	28	XA			
6845	/B	CRT Controller	40	QA			
68488	/B	GP/A Support Module	40	QA			
68A488	/B	1.5 MHz GP/A Support Module	40	QA			
68B488	/B	2.0 MHz GP/A Support Module	40	QA			
6850	/B	Asynchronous Communications Interface Adapter	24	JA			
68A50	/B	1.5 MHz Asynchronous Communications Interface Adapter	24	JA			
68B50	/B	1.5 MHz Asynchronous Communications Interface Adapter	24	JA			
6852	/B	Synchronous Serial Data Adapter	24	JA			
6854	/B	Advanced Data-Link Controller	28	XA			
6875A	/B	6800 Clock Generator/Driver	16	EA			
68HC11A0	/B	8-Bit Microcontroller with 256 Bytes RAM	48	XA			
	/B	8-Bit Microcontroller with 256 Bytes RAM	52				2Q90
68HC11A1	/B	8-Bit Microcontroller, 256 Bytes RAM & 512 Bytes EEPROM	48	XA			
	/B	8-Bit Microcontroller, 256 Bytes RAM & 512 Bytes EEPROM	52				2Q90
68HC11F1	/B	Expanded 8-Bit Microcontroller with Non-Multiplexed Bus	68				4Q90
68HC811E2	/B	8-Bit Microcontroller with 2K EEPROM	48	XA			
	/B	8-Bit Microcontroller with 2K EEPROM	52				YC
68HC705C8	/B	8-Bit Microcontroller with 8K EPROM	40	3Q90			

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32-Bit Controllers & Microcontrollers				883C Package Type and Lead Finish			
Device	883C	Description	Pins	DIL	PGA	LCCC	CLCC
68332	/B	32-Bit Microcontroller	132				4Q90
68332	/B	32-Bit Microcontroller	132		4Q90		

Data Communications & Memory Management				883C Package Type and Lead Finish			
Device	883C	Description	Pins	DIL	PGA	LCCC	CLCC
68302	/B	Integrated Mult-Protocol Processor	132		4Q90		4Q90
68442-8	/B	Expanded DDMA Controller [$T_C = -55^{\circ}\text{C}$ to $+110^{\circ}\text{C}$]	68		ZA		2Q90
68605-10	/B	X.25 Protocol Controller	84		4Q90		4Q90
68824-10	/B	Token Bus Controller	84		2Q90		2Q90
68851-12	/B	Page Memory Management Unit	132		2Q90		
68851-16	/B	Page Memory Management Unit	132		2Q90		

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Standard Military Drawings (SMD)

8-Bit Microcontrollers, 32-Bit Controllers & Microcontrollers				SMD Package Type and Lead Finish			
Device	SMD	Description	Pins	DIL	PGA	LCCC	CLCC
68HC11A0	5962-90510	8-Bit Microcontroller	48	XA			
	5962-90510	8-Bit Microcontroller	52				2Q90
68HC11A1	5962-90510	8-Bit Microcontroller, 512 Bytes EEPROM	48	XA			
	5962-90510	8-Bit Microcontroller, 512 Bytes EEPROM	52				2Q90
68HC811E2	5962-89527	8-Bit Microcontroller with 2K EEPROM	48	XA			
	5962-89527	8-Bit Microcontroller with 2K EEPROM	52				3Q90
68HC705C8	Planned	8-Bit Microcontroller with 8K EPROM	40	3Q90			

32-Bit Controllers & Microcontrollers				SMD Package Type and Lead Finish			
Device	SMD	Description	Pins	DIL	PGA	LCCC	CLCC
68332	Planned	32-Bit Microcontroller	132				4Q90
68332	Planned	32-Bit Microcontroller	132		4Q90		

Data Communications & Memory Management				SMD Package Type and Lead Finish			
Device	SMD	Description	Pins	DIL	PGA	LCCC	CLCC
68302	Planned	Integrated Multi-Protocol Processor with RAM & Timers	132		4Q90		4Q90
68442-8	5962-86811	Expanded DDMA Controller	68		YC		2Q90
		[T _C = -55°C to +110°C]					
68605-10	Planned	X.25 Protocol Controller	84		4Q90		Planned
68824-10	Planned	Token Bus Controller	84		2Q90		Planned
68851-12	5962-89461	Page Memory Management Unit	132		2Q90		2Q90
68851-16	5962-89461	Page Memory Management Unit	132		2Q90		2Q90

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16 AND 32-BIT MICROPROCESSORS

MIL-STD-883C

16 and 32-Bit Microprocessors				883C Package Type and Lead Finish			
Device	883C	Description	Pins	DIL	PGA	LCCC	CLCC
68000-8*	/B	16-Bit external/32-Bit internal MPU	64	XA			
	/B	16-Bit external/32-Bit internal MPU	68		ZA	UA	2Q90
68000-8T*	/B	16-Bit external/32-Bit internal MPU	68			UA**	
68000-10*	/B	16-Bit external/32-Bit internal MPU	64	XA			
	/B	16-Bit external/32-Bit internal MPU	68		ZA	UA	2Q90
68000-10T*	/B	16-Bit external/32-Bit internal MPU	68			UA**	
68000-12*	/B	16-Bit external/32-Bit internal MPU	64	3Q90			
	/B	16-Bit external/32-Bit internal MPU	68		3Q90	3Q90	3Q90
68000-12T*	/B	16-Bit external/32-Bit internal MPU	68			3Q90	
68020-16	/B	32-Bit external and internal	114		ZA		
	/B	32-Bit external and internal	132				YC
68020-20	/B	32-Bit external and internal	114		ZA		
	/B	32-Bit external and internal	132				YC
68020-25	/B	32-Bit external and internal	114		4Q90		
	/B	32-Bit external and internal	132				4Q90
68Q30-16	/B	32-Bit external and internal w/built-in PMMU	128		ZA		
	/B	32-Bit external and internal w/built-in PMMU	132				2Q90**
68030-20	/B	32-Bit external and internal w/built-in PMMU	128		ZA		
	/B	32-Bit external and internal w/built-in PMMU	132				2Q90**
68030-25	/B	32-Bit external and internal w/built-in PMMU	128		ZA		
	/B	32-Bit external and internal w/built-in PMMU	132				2Q90**
68030-33	/B	32-Bit external and internal w/built-in PMMU	128		ZA		
	/B	32-Bit external and internal w/built-in PMMU	132				2Q90**
68040	/B	32-Bit external and internal w/built-in PMMU and FPU	179		1Q91		
	/B	32-Bit external and internal w/built-in PMMU and FPU	TBD				1Q91
68881-16	/B	32-Bit Floating Point Coprocessor	68		ZA		YC
68881-20	/B	32-Bit Floating Point Coprocessor	68		ZA		YC
68882-16	/B	Enhanced 16 MHz 32-Bit Floating Point Coprocessor	68		ZA		2Q90
68882-20	/B	Enhanced 20 MHz 32-Bit Floating Point Coprocessor	68		ZA		2Q90
68882-25	/B	Enhanced 25 MHz 32-Bit Floating Point Coprocessor	68		ZA		2Q90
68882-33	/B	Enhanced 33 MHz 32-Bit Floating Point Coprocessor	68		ZA		2Q90
68HC000-8	/B	16-Bit external/32-Bit internal HCMOS MPU	64	XA			
	/B	16-Bit external/32-Bit internal HCMOS MPU	68		ZA	UA	2Q90
68HC000-10	/B	16-Bit external/32-Bit internal HCMOS MPU	64	XA			
	/B	16-Bit external/32-Bit internal HCMOS MPU	68		ZA	UA	2Q90
68HC000-12	/B	16-Bit external/32-Bit internal HCMOS MPU	64	XA			
	/B	16-Bit external/32-Bit internal HCMOS MPU	68		ZA	UA	2Q90
68HC001	/B	Configurable 8 or 16-Bit MPU	68		3Q90		Planned

* [T_C = -55° to +110°C]

** This device includes thermal pad(s).

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16 AND 32-BIT MICROPROCESSORS

Standard Military Drawings (SMD)

16 and 32-Bit Microprocessors				SMD Package Type and Lead Finish			
Device	SMD	Description	Pins	DIL	PGA	LCCC	CLCC
68000-8*	8202102	16-Bit external/32-Bit internal MPU	64	YA			
		16-Bit external/32-Bit internal MPU	68		TA	ZA	1Q90
68000-8T*	8202102	16-Bit external/32-Bit internal MPU	68			XA**	
68000-10*	8202103	16-Bit external/32-Bit internal MPU	64	YA			
		16-Bit external/32-Bit internal MPU	68		TA	ZA	1Q90
68000-10T*	8202103	16-Bit external/32-Bit internal MPU	68			XA**	
68000-12*	82021	16-Bit external/32-Bit internal MPU	64				
		16-Bit external/32-Bit internal MPU	68	3Q90	3Q90	3Q90	3Q90
68000-12T*	8202103	16-Bit external/32-Bit internal MPU	68			XA**	
68020-16	5962-8603202	32-Bit external and internal	114		XA		
		32-Bit external and internal	132				YC
68020-20	5962-8603203	32-Bit external and internal	114		XA		
		32-Bit external and internal	132				YC
68020-25	5962-86032	32-Bit external and internal	114		4Q90		
		32-Bit external and internal	132				4Q90
68030-16	5962-89464	32-Bit external and internal w/built-in PMMU	128		2Q90		
	5962-89464	32-Bit external and internal w/built-in PMMU	132				2Q90**
68030-20	5962-89464	32-Bit external and internal w/built-in PMMU	128		2Q90		
	5962-89464	32-Bit external and internal w/built-in PMMU	132				2Q90**
68030-25	5962-89464	32-Bit external and internal w/built-in PMMU	128		2Q90		
	5962-89464	32-Bit external and internal w/built-in PMMU	132				2Q90**
68030-33	5962-89464	32-Bit external and internal w/built-in PMMU	128		2Q90		
	5962-89464	32-Bit external and internal w/built-in PMMU	132				2Q90**
68040	Planned	32-Bit external and internal w/built-in PMMU and FPU	179		1Q91		
	Planned	32-Bit external and internal w/built-in PMMU and FPU	TBD				1Q91
68881-16	5962-8602102	32-Bit Floating Point Coprocessor	68		XA		YC
68881-20	5962-8602103	32-Bit Floating Point Coprocessor	68		XA		YC
68882-16	5962-89463	Enhanced 32-Bit Floating Point Coprocessor	68		2Q90		2Q90
68882-20	5962-89463	Enhanced 32-Bit Floating Point Coprocessor	68		2Q90		2Q90
68882-25	5962-89463	Enhanced 32-Bit Floating Point Coprocessor	68		2Q90		2Q90
68882-33	5962-89463	Enhanced 32-Bit Floating Point Coprocessor	68		2Q90		2Q90
68HC000-8	5962-89462	16-Bit external/32-Bit internal HCMOS MPU	64	2Q90			
	5962-89462	16-Bit external/32-Bit internal HCMOS MPU	68		2Q90	2Q90	2Q90
68HC000-10	5962-89462	16-Bit external/32-Bit internal HCMOS MPU	64	2Q90			
	5962-89462	16-Bit external/32-Bit internal HCMOS MPU	68		2Q90	2Q90	2Q90
68HC000-12	5962-89462	16-Bit external/32-Bit internal HCMOS MPU	64	2Q90			
	5962-89462	16-Bit external/32-Bit internal HCMOS MPU	68		2Q90	2Q90	2Q90
68HC001	Planned	Configurable 16-Bit or 8-Bit MPU	68		3Q90		Planned

* [T_C = -55° to +110°C]

** This device includes thermal pad(s).

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REDUCED INSTRUCTION SET COMPUTERS (RISC) DIGITAL SIGNAL PROCESSORS (DSP)

MIL-STD-883C

RISC				883C Package Type and Lead Finish			
Device	883C	Description	Pins	DIL	PGA	LCCC	CLCC
88100-20	/B	32-Bit RISC	180		3Q90		
	/B	32-Bit RISC	200				Planned
88100-25	/B	32-Bit RISC	180		3Q90		
	/B	32-Bit RISC	200				Planned
88200-20	/B	16K Cache/Memory Management Unit	180		3Q90		
	/B	16K Cache/Memory Management Unit	200				Planned
88200-25	/B	16K Cache/Memory Management Unit	180		3Q90		
	/B	16K Cache/Memory Management Unit	200				Planned

DSP				883C Package Type and Lead Finish			
Device	883C	Description	Pins	DIL	PGA	LCCC	CLCC
56001-20	/B	56-Bit Digital Signal Processor	88		ZA		
96002-27	/B	56-Bit Digital Signal Processor	100				2Q90
	/B	96-Bit Floating Point Digital Signal Processor	TBD		4Q91		
	/B	96-Bit Floating Point Digital Signal Processor	TBD				4Q91

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REDUCED INSTRUCTION SET COMPUTERS (RISC) DIGITAL SIGNAL PROCESSORS (DSP)

Standard Military Drawings (SMD)

RISC				SMD Package Type and Lead Finish			
Device	SMD	Description	Pins	DIL	PGA	LCCC	CLCC
88100-20	Planned	32-Bit RISC	180		3Q90		
	Planned	32-Bit RISC	200				Planned
88100-25	Planned	32-Bit RISC	180		3Q90		
	Planned	32-Bit RISC	200				Planned
88200-20	Planned	16K Cache/Memory Management Unit	180		3Q90		
88200-25	Planned	Cache/Memory Management Unit	200				Planned
	Planned	Cache/Memory Management Unit	180		3Q90		
	Planned	16K Cache/Memory Management Unit	200				Planned

DSP				SMD Package Type and Lead Finish			
Device	SMD	Description	Pins	DIL	PGA	LCCC	CLCC
56001-20	5962-89512	56-Bit Digital Signal Processor	88		2Q90		
	5962-89512	56-Bit Digital Signal Processor	100				2Q90
96002-27	Planned	96-Bit Floating Point Digital Signal Processor	TBD		4Q91		4Q91
	Planned	96-Bit Floating Point Digital Signal Processor	TBD				4Q91