

## D-Bug12 monitor routines

Subroutine	Function	Vector Address		
		M68EVB912B32 Version 2.xxx	HC12A4EVB Version 1.xxx	
main()	Start of D-Bug12	\$F680	\$FE00	
<b>Character routines</b>				
getchar()	Get a character from serial I/O port	\$F682	\$FE02	
putchar()	Send a character out to the serial I/O port	\$F684	\$FE04	
isalpha()	Check if a character is alphabetic	\$F690	\$FE10	
isxdigit()	Check if a character is a hexadecimal digit	\$F68C	\$FE0C	
toupper()	Convert lower-case character to upper-case	\$F68E	\$FE0E	
out2hex()	Output 8-bit number as 2 ASCII hex characters	\$F696	\$FE16	
out4hex()	Output a 16-bit number as 4 ASCII hex characters	\$F698	\$FE18	
<b>String routines</b>				
printf()	Formatted string output	\$F686	\$FE06	
GetCmdLine()	Get a line of input from the user	\$F688	\$FE08	
sscanhex()	Convert ASCII hex string to a binary integer	\$F68A	\$FE0A	
strcpy()	Copy a null terminated string	\$F694	\$FE14	
strlen()	Returns the length of a null terminated string	\$F692	\$FE12	
<b>Interrupt routines</b>				
SetUserVector()	Setup a vector to a user's interrupt service routine	\$F69A	\$FE1A	
<b>EEPROM routines</b>				
EraseEE()	Erase all of the EEPROM memory	\$F69E	\$FE1E	
WriteEEByte()	Write a byte in the EEPROM memory	\$F69C	\$FE1C	
D-Bug12 Command	Function	Monitor Routine	M68EVB912B32 Ver 2.xxx Address	HC12A4EVB Ver 1.xxxx Address
ASM	Assemble programs	EraseEE	\$F69E	\$FE1E
BAUD	Set SCI Baud rate	getchar	\$F682	\$FE02
BF	Block fill memory	GetCmdLine	\$F688	\$FE08
BR	Breakpoint set	isalpha	\$F690	\$FE10
BULK	Bulk erase EEPROM	isxdigit	\$F68C	\$FE0C
G	Go run user program	main	\$F680	\$FE00
GT	Go till a breakpoint	out2hex	\$F696	\$FE16
HELP	Help	out4hex	\$F698	\$FE18
LOAD	Load program down to EVB	printf	\$F686	\$FE06
MD	Memory display-byte	putchar	\$F684	\$FE04
MDW	Memory display-word	SetUserVector	\$F69A	\$FE1A
MM	Memory modify-byte	sscanhex	\$F68A	\$FE0A
MMW	Memory modify-word	strcpy	\$F694	\$FE14
MOVE	Move memory	toupper	\$F68E	\$FE0E
NOBR	Clear breakpoint	WriteEEByte	\$F69C	\$FE1C
RD	Register display			
RM	Register modify			
T	Trace program			
UPLOAD	Upload from EVB			
VERIFY	Verify downloaded program			

## D-Bug12 Monitor interrupts

Number <sub>10</sub>	MC68HC912B32 Interrupt (Ver 2.xxx)	MC68HC812A4 Interrupt (Ver 1.xxx)
7	Reserved	Port H Key Wake Up
8	BDLC	Port J Key Wake Up
9	Analog-to-Digital Converter	Analog-to-Digital Converter
10	Reserved	Serial Communications Interface 1 (SCI1)
11	Serial Communications Interface 0 (SCIO)	Serial Communications Interface 0 (SCIO)
12	Serial Peripheral Interface 0 (SPI0)	Serial Peripheral Interface 0 (SPI0)
23	Timer Channel 0	Timer Channel 0
22	Timer Channel 1	Timer Channel 1
21	Timer Channel 2	Timer Channel 2
20	Timer Channel 3	Timer Channel 3
19	Timer Channel 4	Timer Channel 4
18	Timer Channel 5	Timer Channel 5
17	Timer Channel 6	Timer Channel 6
16	Timer Channel 7	Timer Channel 7
14	Pulse Accumulator Overflow	Pulse Accumulator Overflow
13	Pulse Accumulator Input Edge	Pulse Accumulator Input Edge
15	Timer Overflow	Timer Overflow
24	Real Time Interrupt	Real Time Interrupt
25	IRQ	IRQ and Key wakeup D
26	XIRQ	XIRQ
27	Software Interrupt (SWI)	Software Interrupt (SWI)
28	Unimplemented Opcode Trap	Unimplemented Opcode Trap
-1	Return the starting address of the RAM vector table	Return the starting address of the RAM vector table