



Type 1



Type 2



Type 3



easyDSP

Real-time MCU Monitoring

easyDSP is a powerful graphical user interface (GUI) for the maintaining, configuring and trouble-shooting of embedded software with strict real-time requirements. The tool automatically extracts the symbol information from compiler's output file and presents the user with windows for the viewing, editing, logging and graphing of those symbols, in real-time, while the target software is executing. easyDSP communicates with the target MCU over a serial communication link, SCI or USART. On the target, only a small "remote agent" needs to be called in the lowest prioritized task. Since the remote agent runs on spare processor cycles, it does not interfere with the interrupt driven part of the software. This makes the tool ideal for interfacing with power electronics control software, where the control tasks need to be executed uninterruptedly and with minimal latency. The fact that easyDSP does not depend on JTAG/SWD for communicating with the target makes the tool operate reliably in environments with strong EMI and/or high-voltage isolation requirements.

Since 1999, it has been used in many industrial MCU applications and has made great reputation in both performance and quality.

Products

Type 1 : standard isolation for TI C2000

Type 2 : reinforced isolation with optic cable (max. 200m) for TI C2000

Type 3 : standard isolation for ARM Cortex-M/R and Renesas RX core

Key Features

- Supporting TI C28x MCU series : F28Ex, F28Px, F2838x, F2837x, F28[23x, 33x], F280[2x, 3x, 5x, 6x, 7x], F2800[1x, 2x, 3x, 4x], C2834x, F28[0x, 1x] series
- Supporting TI C29x MCU series
- Supporting TI AM263x, TM4C, UCD3138 and MSPM0 MCU series
- Supporting ST STM32 MCU series : C,F,G,H,L,N,U,C,WB,WBA,WL series
- Supporting Infineon PSOC4, XMC1/4/7 MCU, PSOC C3 series
- Supporting Renesas RA, RX series
- Supporting Toshiba TX, TXZ3 series
- Supporting NXP LPC1x00, S32 series
- OS : 64bit Windows
- On-chip flash programming
- RAM booting for TI C2000, TI AM263x and STM32
- Reading/Writing for user code variables
- Support various data format (array, struct, union, class, bit-field)
- Versatile interface
(command, watch, plot, memory, array, tree, chart, recorder windows)
- Isolation between PC and MCU

Specification

- USB bus powered
- USB 2.0 full speed compatible
- operating temperature : 5° - 55° centigrade non-condensing
- warranty : 3 months from purchase date
- two LEDs provide operational status
- galvanic isolation
- optic cable with HFBR-1414 and HFBR-2412 for type2
- pod dimension
82 x 56 x 21 cm³ for type1 and 2, 81x 42.5 x 21 cm³ for type3
- weight : 140g for type1, 330g for type2, 62g for type3

Product Brief



Type 1



Type 2



Type 3



easyDSP

Real-time MCU Monitoring

Screen Shot

Watch-1

Name	Value	Type	Address	Dimensi...
ezDSP_nStartPos	13	int	0x008E40	
ezDSP_ringBuffer	array	char[50]	0x008E43	
ezDSP_ringBuffer[0]	0	char	0x008E43	
ezFlash_Buffer	array	uns int[512]	0x008C40	
ezFlash_Buffer[0]	6107	uns int	0x008C40	
ezFlash_ulZ1CSMKeys	array	uns long[4]	0x008C16	
Idx	0	long double	0x008EA6	
abort	30464	int	0x008821	
FlashRegs	struct	FLASH_RE...	0x000A80	
ezDSP_fFloat	5000000u	float	0x008E92	micro(u)

Command-1

```

x_struct.larray = array
x_struct.larray[0] = 0x0033

Idx = 0
ulRunningCount=880727106

ezFlash_fstStatus=struct
ezFlash_fstStatus.FirstFailAddr=3251018715
ezFlash_fstStatus.ExpectedData=46415
    
```

RAM booting for TMS320F28x

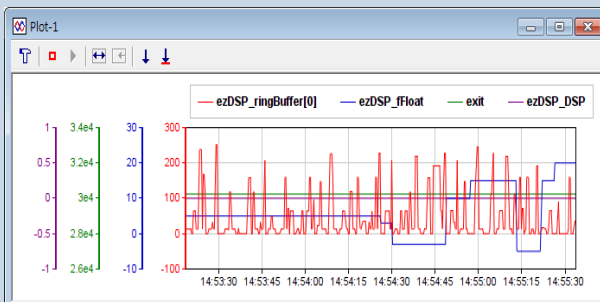
Boot

Verify

Status : Verifying RAM booting ... Completed !
1sec elapsed

☒ Enable fast booting ☒ Enable fast verifying

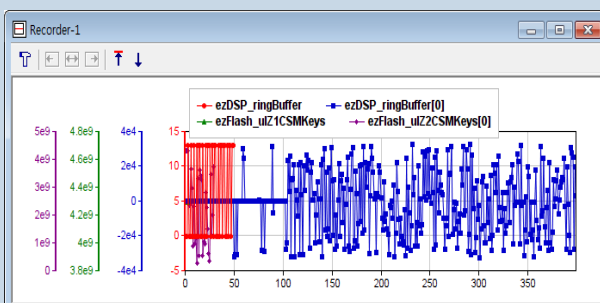
Boot Verify Boot > Verify Stop Exit



Tree-1

Struct/Union GpioDataRegs 5 sec

Struct/Union	Value
GpioDataRegs.GPADAT	
GpioDataRegs.GPADAT.all : 4294701056	
GpioDataRegs.GPADAT.bit	
GpioDataRegs.GPADAT.bit.GPIO0 : 0	
GpioDataRegs.GPADAT.bit.GPIO1 : 0	
GpioDataRegs.GPADAT.bit.GPIO2 : 0	
GpioDataRegs.GPADAT.bit.GPIO3 : 0	
GpioDataRegs.GPADAT.bit.GPIO4 : 0	
GpioDataRegs.GPADAT.bit.GPIO5 : 0	
GpioDataRegs.GPADAT.bit.GPIO6 : 0	
GpioDataRegs.GPADAT.bit.GPIO7 : 0	



Memory-1

Address &ClibDataExchRegs bit width 32 5 sec

Address	+0	+4	+8	+C	ASCII
0x003200	14600860	1011A091	14600860	1011A091	.....
0x003210	14600860	1011A091	14600860	1011A091	.....
0x003220	14600860	1011A091	14600860	1011A091	.....
0x003230	14600860	1011A091	14600860	1011A091	.....
0x003240	14600860	1011A091	14600860	1011A091	.....
0x003250	14600860	1011A091	14600860	1011A091	.....
0x003260	14600860	1011A091	14600860	1011A091	.....
0x003270	14600860	1011A091	14600860	1011A091	.....
0x003280	14600860	1011A091	14600860	1011A091	.....
0x003290	14600860	1011A091	14600860	1011A091	.....

Array-1

u16aArrayDim2 uint16_t [100][100] 20 sec

	[*][0]	[*][1]	[*][2]	[*][3]	[*][4]	[*][5]	[*][6]	[*][7]	[*][8]	[*][9]	[*][10]	[*][11]
[0][*]	0	1	2	3	4	5	6	7	8	9	10	11
[1][*]	10	11	12	13	14	15	16	17	18	19	20	21
[2][*]	20	21	22	23	24	25	26	27	28	29	30	31
[3][*]	30	31	32	33	34	35	36	37	38	39	40	41
[4][*]	40	41	42	43	44	45	46	47	48	49	50	51
[5][*]	50	51	52	53	54	55	56	57	58	59	60	61
[6][*]	60	61	62	63	64	65	66	67	68	69	70	71
[7][*]	70	71	72	73	74	75	76	77	78	79	80	81
[8][*]	80	81	82	83	84	85	86	87	88	89	90	91
[9][*]	90	91	92	93	94	95	96	97	98	99	100	101
[10][*]	100	101	102	103	104	105	106	107	108	109	110	111

www.easydsp.com

How to reach us :

<http://www.easydsp.com>

Published by easyDSP

All Rights Reserved

Legal Disclaimer This information given in this product brief shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, easyDSP hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warranties of non-infringement of intellectual property rights or any third part.