

F²MC-8FX Family
GENERAL TESTING BOARD
FMCDC-8FX-501

1. Product outline

This product is a general testing board used to connect the MCU board carrying an evaluation MCU in the F²MC-8FX Family of Fujitsu 8-bit microcontrollers. To build an F²MC- 8FX testing environment, combine three products: the general testing board (part number: FMCDC-8FX-501), MCU board, and BGM adapter (part number: FMCDC-8FX-101).

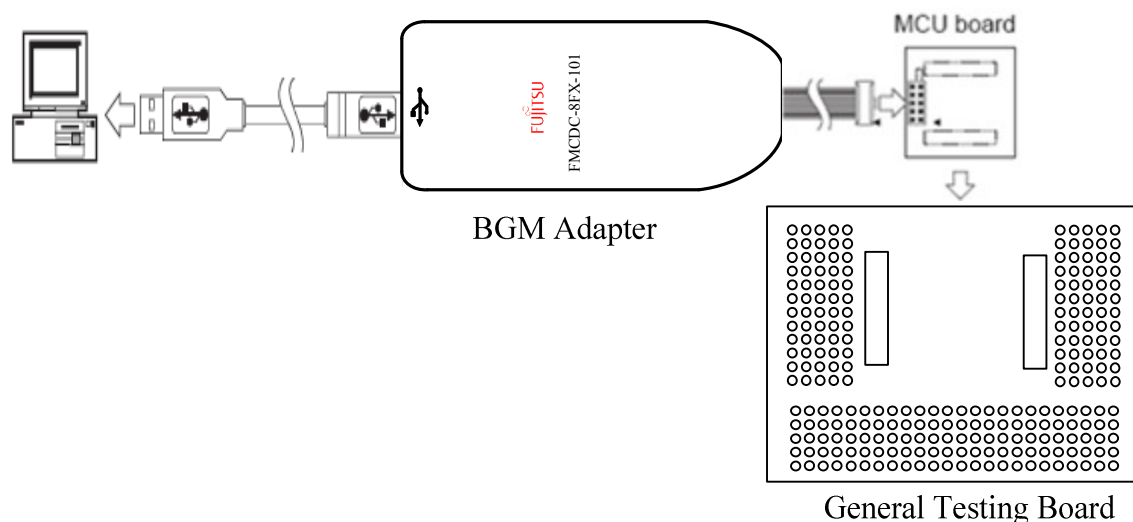


Figure 1 System configuration

■ Product configuration

Tables 1 lists the product configuration in the general testing board.

Table 1 Product configuration

Name	Description	Remarks
F ² MC-8FX general testing board [Part number:FMCDC-8FX-501]	Board to board connector	

2. Checking the delivered product

Before using the general testing board, confirm that the following components are included in the box:

- General testing board :1
- Operation manual (English version, this manual) :1

3. Product specification

■ General specification

The general specification of a header board is shown in Table 2.

Table 2 General specification

Item	Description
Operating/storage temperature	5 °C to 35 °C (At the time of operation)
	0 °C to 40 °C (At the time of storage)
Operating/storage humidity	20% to 80% (At the time of operation)
	20% to 80% (At the time of storage)
Dimensions	117mm × 94mm × 1.6mm

■ main composition

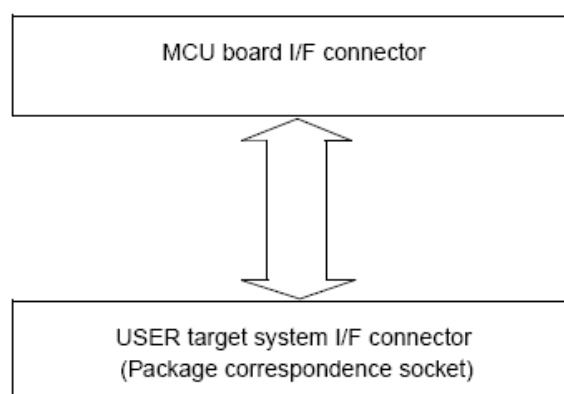
The main composition component of a general testing board is shown in Table 3.

Table 3 main composition

Item	Description
MCU board I/F connector	120 pins 0.5 mm pitch 2 piece connector
	(Straight) 2
	[Model number : 24 5046 120 500829 (Kyocera)]

■ Functional block diagram

A general testing board performs socket conversion between the I/F connector of a MCU board, and connector parts, such as IC, are not in an inside. A block diagram is shown in Fig. 7.



■ MCU board I/F connector

CN5 and CN6 are MCU board I/F connectors. P8 is the incorrect insertion prevention socket of a MCU board. The pin assignment of the MCU board I/F connector CN5 is shown in Table 4, and the pin assignment of the MCU board I/F connector CN6 is shown in Table 5.

Table 4 Pin assignment of the MCU board I/F connector CN5

connector pin number	MCU pin number	signal line name	connector pin number	MCU pin number	signal line name	connector pin number	MCU pin number	signal line name
1	A10	PC5	41	D17	PE6B	81	T18	P40
2	C10	PC6	42	E15	PE5B	82	R16	P31
3	B10	PD0	43	F18	P04C	83	T17	P32
4	D10	PC7	44	F16	SEL4	84		
5	A11	PD1	45	G18	P00C	85	U18	P33
6	C11	PD3	46	F15	SEL3	86		
7	B11	PD2	47	G17	P05C	87	V18	AVCC
8	D11	PD4	48			88		
9	A12	PD5	49	H18	P07A	89	U17	P30
10	C12	P61	50	G16	P07C	90		
11	B12	PD7	51	H17	P03C	91	V17	DA0
12	D12	P60	52	G15	P06C	92		
13	A13	PD6	53	J18	P03A	93	U16	AVR3
14	C13	P66	54	H16	P02C	94		HDR_CPIN
15	B13	P64	55	J17	P06A	95	V16	P14
16	D13	P65	56	H15	P01C	96	T16	AVSS
17	A14	P62	57	K18	P02A	97	U15	P15
18	C14	PE3A	58	J16	P05A	98	R15	AVCC3
19	B14	PE0A	59	K17	P07B	99	V15	P10
20	D14	PE2A	60	J15	P04A	100	T15	AVR
21	A15	P63	61	L18	P06B	101	U14	P13
22	C15	PE6A	62	K16	P01A	102	R14	P16
23	B15	PE1A	63	L17	P05B	103	V14	PWDATA7
24	D15	PE1B	64	K15	P00A	104	T14	DA1
25	A16	P67	65	M18	P02B	105	U13	NC3
26		GND	66	L16	P04B	106	R13	P11
27	B16	PE5A	67	M17	P00B	107	V13	PWDATA3
28	D16	PE0B	68	L15	P03B	108	T13	P12
29	A17	PE4A	69	N18	P01B	109	U12	PWDATA4
30	D18	SEL2	70	M16	P46	110	R12	PWDATA5
31		VCC	71	N17	P43	111	V12	PRDATA7
32	E17	NC4	72	M15	P47	112	T12	PWDATA6
33	B17	PE7A	73	P18	P45	113	U11	PWDATA2
34	E18	SEL0	74	N16	P41	114	R11	PWDATA0
35	B18	PE3B	75	P17	P37	115	V11	PRDATA6
36	F17	SEL1	76	N15	P42	116	T11	PWDATA1
37	C17	PE2B	77	R18	P44	117	U10	PRDATA5
38			78	P16	P34	118	R10	PRDATA3
39	C18	PE7B	79	R17	P36	119	V10	PRDATA2
40	E16	PE4B	80	P15	P35	120	T10	PRDATA4

Table 5 Pin assignment of the MCU board I/F connector CN6

connector pin number	MCU pin number	signal line name	connector pin number	MCU pin number	signal line name	connector Pin number	MCU pin number	signal line name
1	D9	PC3	41			81	P3	BSOUT
2	A9	PC4	42	D1	BGOENX	82	P1	P81
3	C9	PC2	43			83	P4	BDBMX
4	B9	PC1	44	D2	LVR2	84	P2	ROMS0
5	D8	PB6	45	E3	LVR0	85	R2	BRSTX
6	A8	PC0	46	E1	LVSS	86	R1	P83
7	C8	PB5	47	E4	LVR1	87	T1	ROMS1
8	B8	PB4	48	E2	LVR3	88	A1	GND
9	D7	PB1	49	F3	LVDBGR	89	T2	BSIN
10	A7	PB7	50	F1	P22A	90	V1	X1A
11	C7	PB0	51	F4	LVDREXT	91	U1	BEXCK
12	B7	PB2	52	F2	LVDEXX	92	U2	X1
13	D6	PA0	53	G3	NC1	93		
14	A6	PB3	54	G1	P23A	94	U3	MOD
15	C6	P95	55	G4	P20A	95	R3	X0A
16	B6	PA2	56	G2	P21A	96	V3	PINT0
17	D5	P91	57	H3	P25A	97	T4	X0
18	A5	PA3	58	H1	P27A	98	U4	PF2
19	C5	P90	59	H4	P24A	99	R4	RSTX
20	B5	P94	60	H2	P26A	100	V4	PSEL_EXT
21	D4	TESTO	61	J3	P50	101	T5	PF0
22	A4	PA1	62	J1	P51	102	U5	NC2
23	C4	CPIN	63	J4	P24B	103	R5	PF1
24	B4	P92	64	J2	P23B	104	V5	PENABLE
25	D3	LVDOOUT	65	K3	P54	105	T6	PINT1
26	A3	P93	66	K1	P52	106	U6	PCLK
27			67	K4	P53	107	R6	APBENX
28	B3	TCLK	68	K2	P55	108	V6	PADDR0
29			69	L3	P73	109	T7	PLOCK
30	A2	CSVENX	70	L1	P70	110	U7	PWRITE
31			71	L4	P72	111	R7	PACTIVE
32	C3	VCC	72	L2	P74	112	V7	PADDR1
33			73	M3	P80	113	T8	PADDR3
34	B1	LVDIN	74	M1	P71	114	U8	PADDR4
35			75	M4	P77	115	R8	PADDR2
36	B2	LVCC	76	M2	P76	116	V8	PADDR5
37			77	N3	PG0	117	T9	PRDATA0
38	C1	LVR4	78	N1	P75	118	U9	PADDR6
39			79	N4	P84	119	R9	PADDR7
40	C2	LVDEXX2	80	N2	P82	120	V9	PRDATA1

■ Testing board I/F connector

Hole1 and Hole 2 are general testing board I/F testing holes of board to board connectors. The pin assignment of Hole1 is shown in Table 6 and the pin assignment of Hole2 is shown in Table 7.

Table 6 Pin assignment of the General Testing Board Hole1

connector pin number	signal line name	connector pin number	signal line name	connector pin number	signal line name
1	PC6	41	PE5B	81	P31
2	PC5	42	PE6B	82	P40
3	PC7	43	SEL4	83	
4	PD0	44	P04C	84	P32
5	PD3	45	SEL3	85	
6	PD1	46	P00C	86	P33
7	PD4	47		87	
8	PD2	48	P05C	88	AVCC
9	P61	49	P07C	89	
10	PD5	50	P07A	90	P30
11	P60	51	P06C	91	
12	PD7	52	P03C	92	DA0
13	P66	53	P02C	93	HDR_CPIN
14	PD6	54	P03A	94	AVR3
15	P65	55	P01C	95	AVSS
16	P64	56	P06A	96	P14
17	PE3A	57	P05A	97	AVCC3
18	P62	58	P02A	98	P15
19	PE2A	59	P04A	99	AVR
20	PE0A	60	P07B	100	P10
21	PE6A	61	P01A	101	P16
22	P63	62	P06B	102	P13
23	PE1B	63	P00A	103	DA1
24	PE1A	64	P05B	104	PWDATA7
25	GND	65	P04B	105	P11
26	P67	66	P02B	106	NC3
27	PE0B	67	P03B	107	P12
28	PE5A	68	P00B	108	PWDATA3
29	SEL2	69	P46	109	PWDATA5
30	PE4A	70	P01B	110	PWDATA4
31	NC4	71	P47	111	PWDATA6
32	VCC	72	P43	112	PRDATA7
33	SEL0	73	P41	113	PWDATA0
34	PE7A	74	P45	114	PWDATA2
35	SEL1	75	P42	115	PWDATA1
36	PE3B	76	P37	116	PRDATA6
37		77	P34	117	PRDATA3
38	PE2B	78	P44	118	PRDATA5
39	PE4B	79	P35	119	PRDATA4
40	PE7B	80	P36	120	PRDATA2

Table 7 Pin assignment of the General Testing Board Hole 2

connector pin number	signal line name	connector pin number	signal line name	connector Pin number	signal line name
1	PC4	41	BGOENX	81	P81
2	PC3	42		82	BSOUT
3	PC1	43	LVR2	83	ROMS0
4	PC2	44		84	BDBMX
5	PC0	45	LVSS	85	P83
6	PB6	46	LVR0	86	BRSTX
7	PB4	47	LVR3	87	GND
8	PB5	48	LVR1	88	ROMS1
9	PB7	49	P22A	89	X1A
10	PB1	50	LVDBGR	90	BSIN
11	PB2	51	LVDEX	91	X1
12	PB0	52	LVREXT	92	BEXCK
13	PB3	53	P23A	93	MOD
14	PA0	54	NC1	94	
15	PA2	55	P21A	95	PINT0
16	P95	56	P20A	96	X0A
17	PA3	57	P27A	97	PF2
18	P91	58	P25A	98	X0
19	P94	59	P26A	99	PSEL_EXT
20	P90	60	P24A	100	RSTX
21	PA1	61	P51	101	NC2
22	TESTO	62	P50	102	PF0
23	P92	63	P23B	103	PENABLE
24	CPIN	64	P24B	104	PF1
25	P93	65	P52	105	PCLK
26	LVDOOUT	66	P54	106	PINT1
27	TCLK	67	P55	107	PADDR0
28		68	P53	108	APBENX
29	CSVENX	69	P70	109	PWRITE
30		70	P73	110	PLOCK
31	VCC	71	P74	111	PADDR1
32		72	P72	112	PACTIVE
33	LVDIN	73	P71	113	PADDR4
34		74	P80	114	PADDR3
35	LVCC	75	P76	115	PADDR5
36		76	P77	116	PADDR2
37	LVR4	77	P75	117	PADDR6
38		78	PG0	118	PRDATA0
39	LVDEX2	79	P82	119	PRDATA1
40		80	P84	120	PADDR7