

MB89983

Single-Chip MCU Data Release Form (RE)

MDS-896-0560E

Rev 4.2

Customer Name	Customer Contact
Customer Part No.	
Fujitsu Part No.	Application
MB89983 - _____	_____
History	<input type="checkbox"/> Automobile Engine Use (0) <input type="checkbox"/> Automobile Non-Engine Use (1) <input type="checkbox"/> Non-Automobile Use (2)
<input type="checkbox"/> New Release <input type="checkbox"/> Update of Previous: MB89983 - _____	

Mask Option Item	Contents of Selection	Notes																				
Package Type	<input type="checkbox"/> (0) QFP-64 (M09) <input type="checkbox"/> (1) LQFP-64 (M03)																					
Mask ROM Data	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%; text-align: center;">MCU Address</td> <td style="width: 15%; text-align: center;">Media Address</td> <td style="width: 15%; text-align: center;">Program Data</td> <td style="width: 40%;"></td> </tr> <tr> <td>Start</td> <td style="text-align: center;">E 0 0 0 H</td> <td style="text-align: center;">[] [] [] [] H</td> <td style="text-align: center;">[] [] H</td> <td style="text-align: center;">ROL Address (Fujitsu Internal use)</td> </tr> <tr> <td>Arbitrary</td> <td></td> <td style="text-align: center;">[] [] [] [] H</td> <td style="text-align: center;">[] [] H</td> <td style="text-align: center;">[0 0 0 0] H [] [] H</td> </tr> <tr> <td>End</td> <td style="text-align: center;">F F F F H</td> <td style="text-align: center;">[] [] [] [] H</td> <td style="text-align: center;">[] [] H</td> <td style="text-align: center;">[] [] [] [] H [] [] H</td> </tr> </table> <p style="font-size: small; margin-top: 5px;">Fill out the above blanks in hexadecimal for our verification. Write the program data from Start address to End address.</p>		MCU Address	Media Address	Program Data		Start	E 0 0 0 H	[] [] [] [] H	[] [] H	ROL Address (Fujitsu Internal use)	Arbitrary		[] [] [] [] H	[] [] H	[0 0 0 0] H [] [] H	End	F F F F H	[] [] [] [] H	[] [] H	[] [] [] [] H [] [] H	<p style="font-size: small; margin-top: 10px;">- Satellite File Name: RExxxx (Internal use Only for FMI/ FMG/FMAP) xxxx is ROM code No. assigned by Fujitsu.</p>
	MCU Address	Media Address	Program Data																			
Start	E 0 0 0 H	[] [] [] [] H	[] [] H	ROL Address (Fujitsu Internal use)																		
Arbitrary		[] [] [] [] H	[] [] H	[0 0 0 0] H [] [] H																		
End	F F F F H	[] [] [] [] H	[] [] H	[] [] [] [] H [] [] H																		
Power On Reset (POR)	<input type="checkbox"/> (0) No <input type="checkbox"/> (1) Yes																					

Mask Option Item	Contents of Selection	Notes
Main Clock Oscillation Stabilization Time at Reset (OSC)	<input type="checkbox"/> (0) $2^4/f_C$ <input type="checkbox"/> (1) $2^{12}/f_C$ <input type="checkbox"/> (2) $2^{16}/f_C$ <input type="checkbox"/> (3) $2^{18}/f_C$	f_C is the main clock frequency
Clock Mode (CLK)	<input type="checkbox"/> (0) Single Clock Type (Main Clock) <input type="checkbox"/> (1) Dual Clock Type (Main & Sub)	The mode written here is regarded as the guaranteed mode.
Oscillation Frequency	Clock: _____ MHz	The frequency written here is regarded as the guaranteed operating frequency.
Segment Pin Counts (SEG)	Fill out the Segment Number on Port Option table 1.	
Pull-Up Resistor (PUR)	<input type="checkbox"/> (0) Yes (All Ports) <input type="checkbox"/> (1) No (All Ports) <input type="checkbox"/> (2) Scramble	When selecting the Scramble option(2), fill out the attached Port Option Table 1 and 2.
Stop Mode	<input type="checkbox"/> (0) No <input type="checkbox"/> (1) Yes	
Reset Pin Output (RST)	<input type="checkbox"/> (0) No Reset Signal Output <input type="checkbox"/> (1) Reset Signal Output	
Main Clock Oscillation Type (XSL)	<input type="checkbox"/> (0) RC-Network Oscillation Type <input type="checkbox"/> (1) Crystal Oscillation Type <input type="checkbox"/> Ceramic Resonaotr <input type="checkbox"/> FAR Resonator <input type="checkbox"/> Crystal Resonator <input type="checkbox"/> External Clock	

Port Option Table 1

			Segment (SEG) Fill out the following <input type="checkbox"/>			
Function Name	Pin Name	Pin No.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
*P40	P40	57	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No
*P41	P41	58	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No
*P42	P42	59	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No
*P43	P43	60	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No
*P44	P44	61	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No
*P45	P45	62	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No
*P46	P46	63	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No
*P47	P47	64	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No
*P60	P60	1	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No	(1) No
*P61	P61	2	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No	(1) No
*P62	P62	3	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No	(1) No
*P63	P63	4	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No	(1) No
*P64	P64	5	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No	(1) No
*P65	P65	6	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	(1) No	(1) No	(1) No
*P70	P70	54	(1) No	(1) No	(1) No	(1) No
*P71	P71	55	(1) No	(1) No	(1) No	(1) No

Notes:

* Pull-up resistor option is available only if this pin was selected as port by (SEG) option.

Port Option Table 2 (Only Port Scramble Option selected.)

Function Name	Pin Name	Pin Number	Pull- Up Resistor	Function Name	Pin Name	Pin Number	Pull- Up Resistor
P00	P00	14	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P16	P16	37	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P01	P01	15	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P17	P17	38	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P02	P02	25	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P20	P20	39	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P03	P03	26	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P21	P21	40	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P04	P04	27	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P22	P22	41	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P05	P05	28	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P23	P23	42	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P06	P06	29	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P24	P24	43	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P07	P07	30	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P25	P25	44	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P10	P10	31	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P26	P26	45	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P11	P11	32	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	P27	P27	46	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P12	P12	33	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	**P50	P50	7	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P13	P13	34	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	**P51	P51	8	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P14	P14	35	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	**P52	P52	9	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No
P15	P15	36	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No	**P53	P53	10	<input type="checkbox"/> (0) Yes <input type="checkbox"/> (1) No

Notes:

** If select the pull-up resistor option (Yes), resolution of A/D converter doesn't satisfy the specification on the MB89980 Series Data Sheet.

<p>Marking Form</p> <p><input type="checkbox"/> Standard (See below:) (0)</p> <p><input type="checkbox"/> Special (1)</p> <p>* Engineering samples have Standard marking with "ES" mark.</p>	<p>Customer Spec No.</p> <p>(Operating temperature., Operating supply voltage, Supply current, etc.)</p>
<p>Fujitsu Part No.</p> <p>● 64-Pin Plastic QFP Package (QFP-64)</p> <div style="margin-top: 20px;"> <p style="margin-left: 40px;">FJ Logo</p> <p style="margin-left: 40px;">← JAPAN Country of Origin</p> <p style="margin-left: 40px;">← MB89xxx Fujitsu Part No.</p> <p style="margin-left: 40px;">← YYYYY Program Code No.</p> <p style="margin-left: 40px;">← ZZZZ ZZZ Control Code</p> <p style="margin-left: 40px;">← Date Code</p> </div> <ul style="list-style-type: none"> - The height of Fujitsu Logo is 2.0mm. - The other character except FJ logo is the gothic font and the height is the 1.2mm. - The Control and Date Codes are the alphanumeric characters. - The Program Code No. is assigned by Fujitsu. 	<p>Electrical Spec</p> <p><input type="checkbox"/> Standard</p> <p><input type="checkbox"/> Special</p> <hr/> <p>Mechanical Spec</p> <p><input type="checkbox"/> Standard</p> <p><input type="checkbox"/> Special</p> <hr/> <p>Quality/Reliability</p> <p>(Burn-in, Screening. etc.)</p> <p><input type="checkbox"/> Standard</p> <p><input type="checkbox"/> Special</p> <hr/> <p>Other Special Requirements</p> <p>(Special marking proposal form etc.)</p>

Single-Chip MCU Data Release Form (F²MC-8L)

Rev.7.1

May 1999

Notice

1.EPROM

- Acceptable EPROMs:
- Write the program into the "DIP" type EPROMs. LCC EPROMs are not acceptable as the EPROMS of Mask ROM Data.
- Following EPROMs made by Fujitsu are recommended.
 - 32K x 8
 - MBM27C256
 - MBM27C256A
- Write the program after erasing all bits and verify the settlement of 0 / 1 level.
- Do not bend leads, erase EPROMs by ultra violet rays or damage by electrostatic discharge.

2.PROGRAM ROM DAT

- The data format should be Intel HEX (except Intel extended hex), Motorola S1, or Motorola S2 formats. (Recommended Motorola S1/S2). And it should not have offset address.
- The diskette save in the program ROM data is DOS 3.5 inch diskette (1.44MB). Or, electrical readable file (plain text) sending through e-mail.
- The program ROM data should be filled in whole address from START to END addresses. Please be reminds that if the program ROM data contains the unused address, the ROM data at the unused address is filed it out by data FF_H for make fabrication data.
- Fujitsu will sending back confirmation data in Motorola format which has processed and converted for Fujitsu's fabrication use. You may need simple offset adjustment requires at your confirmation.

3.SAMPLES

- ES (Engineering Sample) is guaranteed only for electrical characteristics. Therefore, ES should not be used for reliability test. Also, marking form for ES is Fujitsu STANDARD unless otherwise requested.
- CS (Commercial Sample) is guaranteed for reliability equivalent to that of production parts.

4.ORDER TYPE

- Non-Risk Order :FJ makes ES after data release and starts production after ROM verification.
- Risk Order :FJ starts production after ROM code confirmation. (ES confirmation is skipped).

5.CHANGING AFTER DATA RELEASE

If change required of released data, we will remake mask from the beginning. In such case, another mask charge and corrected DATA RELEASE FORM is necessary.

6.SOFTWARE AND ROM RIGHT

Fujitsu declares that Fujitsu not disclose / sell your software and its mask ROM to a third party. However, even if its software from a third party may be completely or nearly the same with yours, Fujitsu doesn't assume any responsibility. In that case, whenever you find the software from a concerned third party infringe upon your right, Fujitsu concludes you have to settle an infringement problem with a concerned third party.