

# MB89475

## Single-Chip MCU Data Release Form (WG)

MDS-894-0010E

Rev 1.0

<b>Customer Name</b>	<b>Customer Contact</b>
<b>Customer Part No.</b>	
<b>Fujitsu Part No.</b>	<b>Application</b>
MB89475 - _____	_____
<b>History</b>	<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: MB89475 - _____	

Mask Option Item	Contents of Selection	Notes																	
Package Type	<input type="checkbox"/> (0) SH-DIP-48 <input type="checkbox"/> (1) LQFP																		
Mask ROM Data	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">MCU Address</td> <td style="text-align: center;">Media Address</td> <td style="text-align: center;">Program Data</td> <td style="text-align: center;">ROL Address (Fujitsu Internal use)</td> </tr> <tr> <td style="padding: 5px;">Start</td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">C</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> </div>           H         </td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>           H         </td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>           H         </td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">4</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> </div>           H         </td> </tr> <tr> <td style="padding: 5px;">Arbitrary</td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>           H         </td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>           H         </td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>           H         </td> </tr> <tr> <td style="padding: 5px;">End</td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> </div>           H         </td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>           H         </td> <td style="padding: 5px;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">7</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> </div>           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	ROL Address (Fujitsu Internal use)	Start	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">C</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> </div> H	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> H	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> H	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">4</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">0</div> </div> H	Arbitrary	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> H	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> H	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> H	End	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> </div> H	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> H	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">7</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center;">F</div> </div> H	
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Power On Reset (POR)	<input type="checkbox"/> (0) No <input type="checkbox"/> (1) Yes (2 <sup>17</sup> /fch)																		

Mask Option Item	Contents of Selection	Notes
Main Clock Oscillation Type (OSC)	<input type="checkbox"/> (1) $2^{14}/f_{Ch}$ <input type="checkbox"/> (2) $2^{17}/f_{Ch}$ <input type="checkbox"/> (3) $2^{18}/f_{Ch}$  <input type="checkbox"/> Crystal Resonator <input type="checkbox"/> Ceramic Resonator <input type="checkbox"/> FAR Resonator	
Clock Mode (CLK)	<input type="checkbox"/> (0) Single Clock <input type="checkbox"/> (1) Dual Clock	
Operation Frequency	Clock: _____ MHz	The frequency written here is regarded as the guaranteed operating frequency.
Stop Mode	<input type="checkbox"/> (0) No <input type="checkbox"/> (1) Yes	

<p><b>Marking Form</b></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><b>Customer Spec No.</b></p> <p>(Operating temperature., Operating supply voltage, Supply current, etc.)</p>
<p><b>Fujitsu Part No.</b></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: right;">FJ Logo</p> <p> <input type="checkbox"/> JAPAN ← Country of Origin  <input type="checkbox"/> MB89475 ← Fujitsu Part No.  <input type="checkbox"/> YYYY ← Program Code No.  <input type="checkbox"/> ZZZZ ZZZ ← Control Code  <input type="checkbox"/> ← Date Code </p> </div> <ul style="list-style-type: none"> <li>- The height of Fujitsu Logo is 2.0mm.</li> <li>- The other character except FJ logo is the gothic font and the height is the 1.2mm.</li> <li>- The Control and Date Codes are the alphanumeric characters.</li> <li>- The Program Code No. is assigned by Fujitsu.</li> </ul>	<p><b>Electrical Spec</b></p> <p><input type="checkbox"/> Standard</p> <p><input type="checkbox"/> Special</p> <hr/> <p><b>Mechanical Spec</b></p> <p><input type="checkbox"/> Standard</p> <p><input type="checkbox"/> Special</p> <hr/> <p><b>Quality/Reliability</b></p> <p>(Burn-in, Screening. etc.)</p> <p><input type="checkbox"/> Standard</p> <p><input type="checkbox"/> Special</p> <hr/> <p><b>Other Special Requirements</b></p> <p>(Special marking proposal form etc.)</p>

# Single-Chip MCU Data Release Form (F<sup>2</sup>MC-8L)

Rev.6.1

February 1994

<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><b>Sample Requirement</b></div> <p>Engineering Samples (ES)</p> <p>Free Engineering Samples: (Included in mask charge)</p> <p>Quantity : _____ Units</p> <p>Req'd FLT Date : ____ / ____ / ____ (MM/DD/YY)</p> <p>Charged Engineering Sample (Additional ES)</p> <p>Quantity : _____ Units</p> <p>Req'd FLT Date : ____ / ____ / ____ (MM/DD/YY)</p> <p>Samples Price _____ Unit</p> <p>Package Type:    <input type="checkbox"/> Ceramic                           <input type="checkbox"/> Plastic</p> <p><input type="checkbox"/> Expected    <input type="checkbox"/> Committed (P/O: _____ )</p> <p>Charged Commercial Samples (CS)</p> <p>Quantity : _____ Units</p> <p>Req'd FLT Date : ____ / ____ / ____ (MM/DD/YY)</p> <p>Samples Price _____ Unit</p> <p><input type="checkbox"/> Expected    <input type="checkbox"/> Committed (P/O: _____ )</p>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><b>Order Type</b></div> <p><input type="checkbox"/> Non-Risk Order *1 (ROM verification is skipped)</p> <p><input type="checkbox"/> Risk Order *1 (ES confirmation is skipped.)</p> <p>Notes: *1 Refer to the next Page</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><b>Application</b></div> <p>Sales Price: (Including initial Ten Units of Engineering Samples)</p> <p><input type="checkbox"/> Committed</p> <p><input type="checkbox"/> Issued (P/O: _____ )</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><b>Production Info.</b></div> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Production Start: (MM/DD/YY) ____ / ____ / ____</td> <td style="width: 10%; border: none; text-align: center;">to</td> <td style="width: 40%; border: none;">Production End: (MM/DD/YY) ____ / ____ / ____</td> </tr> <tr> <td style="border: none;">Initial Production: ____ Units / Month</td> <td style="border: none;"></td> <td style="border: none;"><input type="checkbox"/> Expected <input type="checkbox"/> Committed</td> </tr> <tr> <td style="border: none;">Production Rate: ____ Units / Month</td> <td style="border: none;"></td> <td style="border: none;"><input type="checkbox"/> Expected: <input type="checkbox"/> Committed</td> </tr> <tr> <td style="border: none;">Total Production: ____ Units / Life ( _____ Years)</td> <td style="border: none;"></td> <td style="border: none;"><input type="checkbox"/> Expected: <input type="checkbox"/> Committed</td> </tr> </table>	Production Start: (MM/DD/YY) ____ / ____ / ____	to	Production End: (MM/DD/YY) ____ / ____ / ____	Initial Production: ____ Units / Month		<input type="checkbox"/> Expected <input type="checkbox"/> Committed	Production Rate: ____ Units / Month		<input type="checkbox"/> Expected: <input type="checkbox"/> Committed	Total Production: ____ Units / Life ( _____ Years)		<input type="checkbox"/> Expected: <input type="checkbox"/> Committed
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<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><b>Originated by</b></div> <p>Signature: _____</p> <p>Title : _____</p> <p>Date : _____</p>	<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"><b>Production Info.</b></div> <p>FMI/FMG/FMAP/FDI:                      Kawasaki:</p> <p>PMM: _____</p> <p>PME: _____                              Kawasaki:</p> <p>Scheduler: _____</p>												

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.

# Single-Chip MCU Data Release Form

Rev.7.2

Aug 2001

## Notice

### 1.PROGRAM ROM DATA

- 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 by the customer for all addresses from the START ADDRESS to the END ADDRESS. If the Physical Program ROM contains unused addresses after the END ADDRESS, the remainder of the unused addresses will be filled by default to FFH by Fujitsu
- 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.

### 2.SAMPLES

- ES (Engineering Sample) is guaranteed only for functional/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.

### 3.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).

### 4.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.

### 5.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.