SimSurfing
IC-Timing Devise Search Tool
Operation Manual

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Murata Manufacturing Co., Ltd

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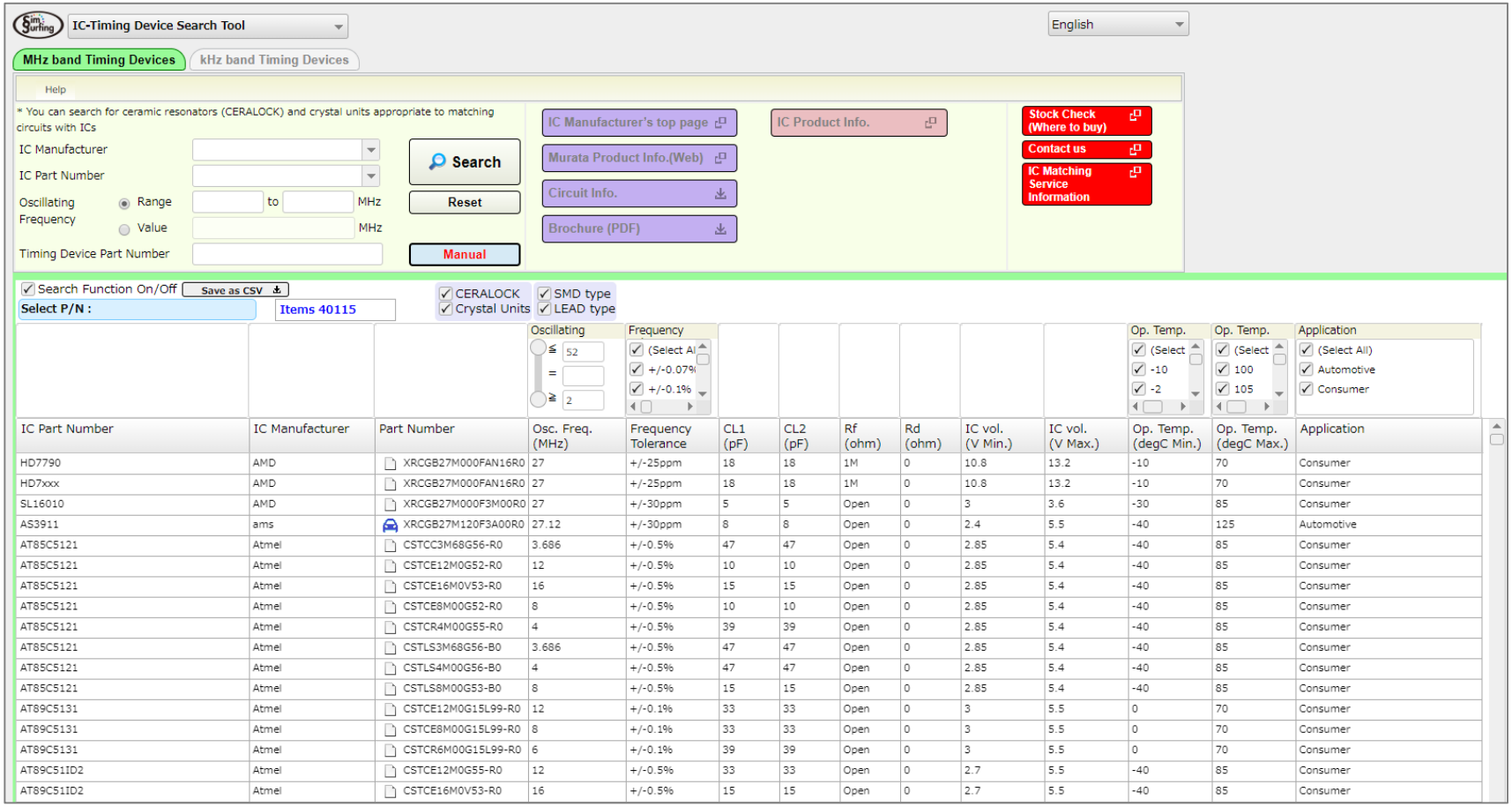
1. About This Tool
1-1. Outline

- The IC-Timing Devices Search tool (hereinafter, “this tool”) performs a search operation to help you determine the part number of the Murata timing device that is most suitable for your IC and access information about the recommended circuit constant setting.



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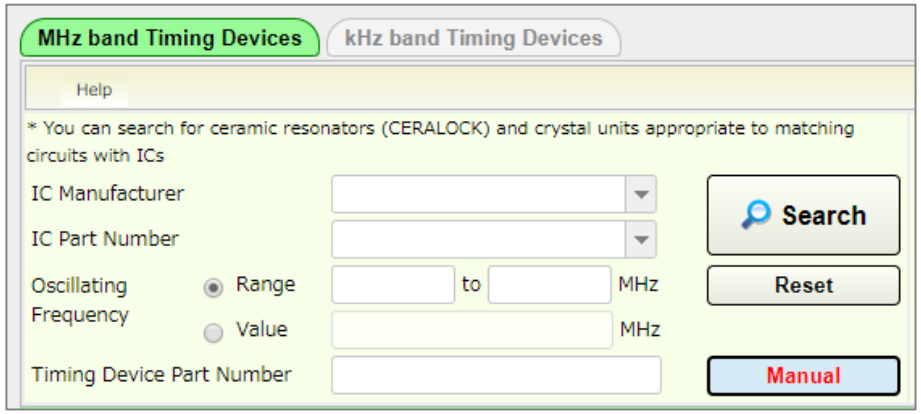
1. About This Tool
1-2. Main Functions

- Using some or all of the following as the search keys, this tool performs a search operation to help you determine the part number of the timing device that is most suitable for the IC and access information about the recommended circuit constant setting:

<Search keys>

- IC manufacturer
- IC part number
- Timing device oscillation frequency
- Murata timing device part number



- This tool helps you access circuit matching data for any IC part number and timing device part number combination that you may select from the list of search results.

- This tool helps you access detailed specifications for any timing device part number that you may select from the list of search results.

- This tool helps you access the website of the IC manufacturer that you specify during the search to browse information. (Note, however, that this cannot be done in some exceptional cases.)

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1. About This Tool
1-3. Product Coverage

- The table below lists the series designations of the timing devices that are covered by search operations performed using this tool:

Type		Series	For Consumer	For Automotive	Frequency Range
CERALOCK	SMD	CSTCC_G	○	○	2.00 to 3.99MHz
		CSTCR_G	○	○	4.00 to 7.99MHz
		CSTNR_G	○	○	
		CSTCE_G	○	○	8.00 to 13.99MHz
		CSTNE_G	○	○	
		CSTCE_V	○	○	14.00 to 20.00MHz
		CSTNE_V	○	○	
	Lead	CSTLS_G	○	×	3.40 to 10.00MHz
		CSTLS_X	○	×	16.00 to 70.00MHz
Crystal Units	SMD	XRCFD	○	×	24.000 to 29.000MHz
		XRCMD	○	×	30.000 to 48.000MHz
		XRCGB	○	○	24.000 to 50.000MHz
		XRCHA	×	○	16.000 to 24.000MHz
		XRCHH	○	×	16.000 to 52.000MHz
		XRCJK	○	×	12.000 to 52.000MHz
MEMS Resonator	SMD	WMRAG	○	×	32.768kHz

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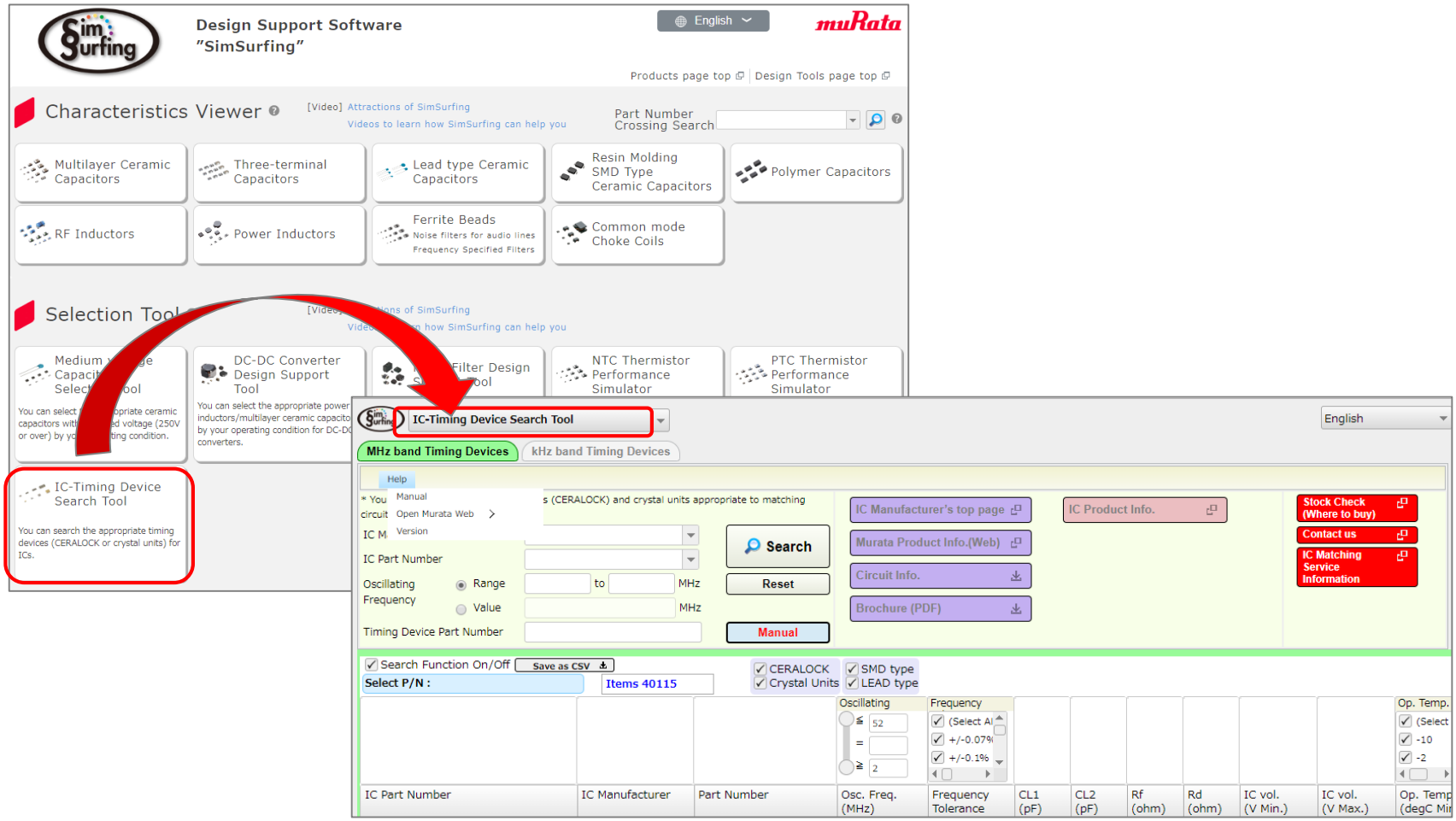
2.Quick Operation Guide
2-1. Start of This Tool

- Click the [IC-Timing Devise Search Tool] on the top page of SimSurfing, the screen of this tool is displayed.



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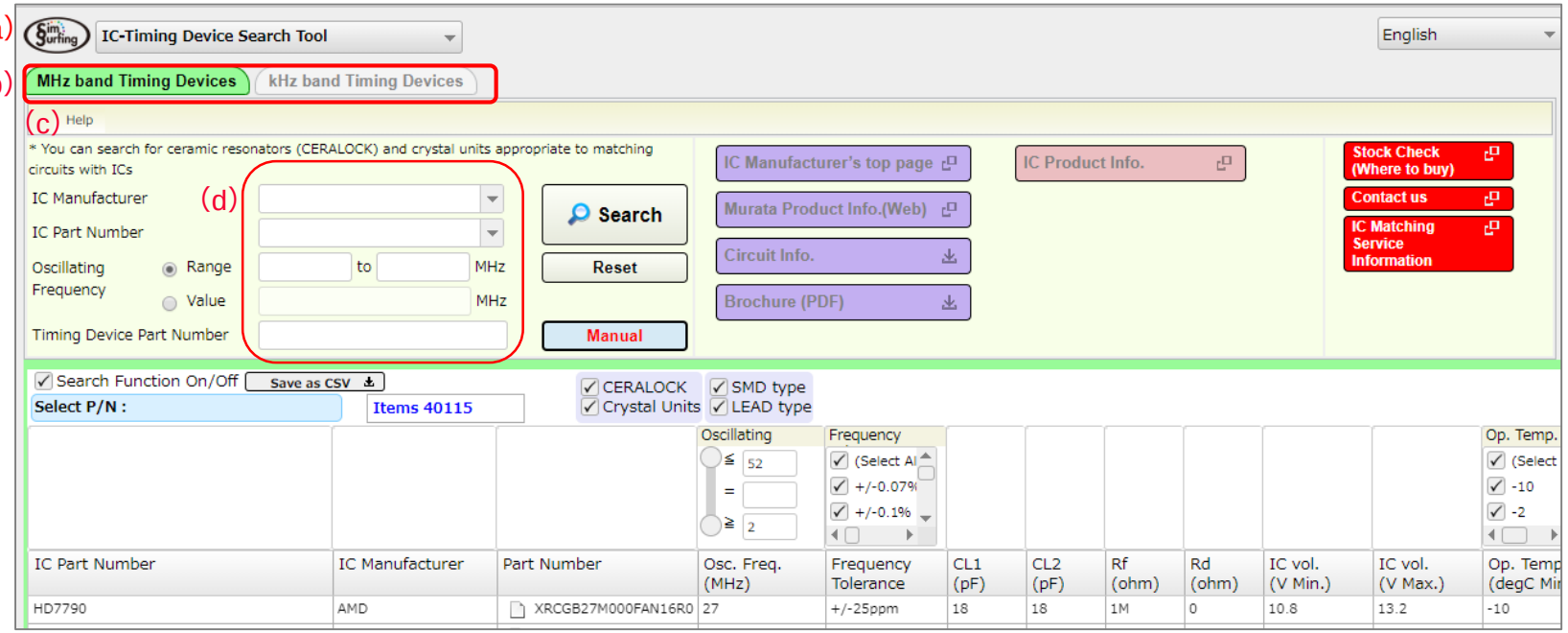
2.Quick Operation Guide
2-2. Screen Configuration (1/4)



(a) Back to the top screen :

This button brings you back to the SimSurfing top screen.

(b) Switching function of MHz band and kHz band :

you can switch between MHz band and kHz band of Murata's timing devices using this tab.

(c) Menu bar "Help" :

"Manual" opens this manual.

"Version" displays the versions of the SimSurfing and the stored data.

"Open Murata Web" takes you to the Murata website.

(d) Search key fields :

These fields accept the entry of the search keys used for the determination of IC part number and Murata timing device part number combinations.

(Please refer to the "3. Details of operation" for the search condition.)

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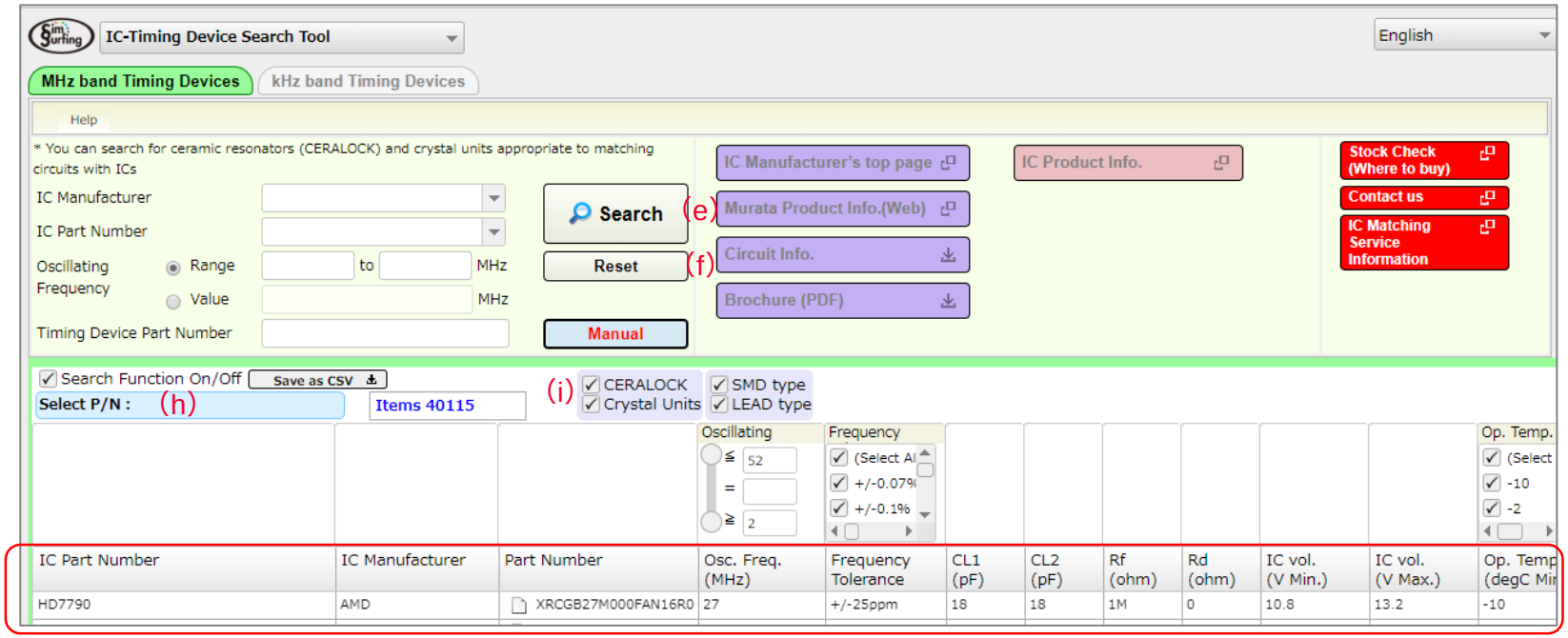
2.Quick Operation Guide
2-2. Screen Configuration (2/4)



(e) Search :

Clicking this button instructs the tool to perform a search operation using the specified keys to find relevant combinations of IC part number and timing device part number. A list display of search results (g) will appear.

(f) Reset :

Clicking this button clears the search results and search keys.

(g) List display of IC part number and Murata timing device part number combinations :

The list displays the IC part number and Murata timing device part number combinations determined by the search.

(h) Select P/N :

This field displays the timing device part number selected from the list display of IC part number and Murata timing device part number combinations (g).

(i) Narrowed-down search for CERALOCK / Crystal units :

These check boxes allow you to include only the CERALOCK units or the Crystal units in the list display of IC part number and Murata timing device part number combinations (g).

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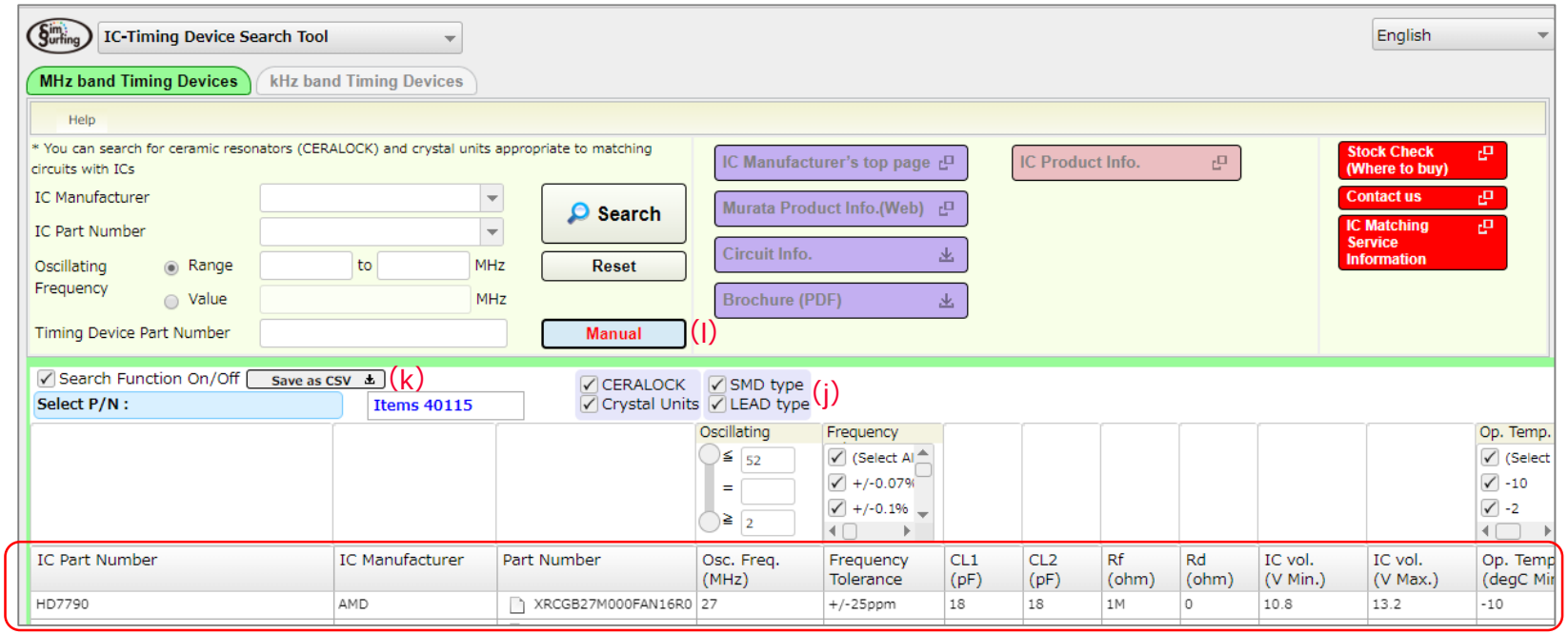
2.Quick Operation Guide
2-2. Screen Configuration (3/4)

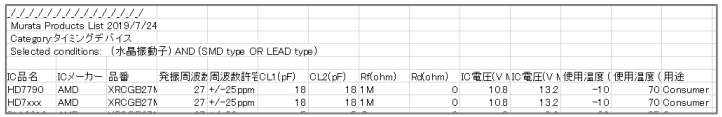


(j) Narrowed-down search for SMD type / LEAD type :

These check boxes allow you to include only “SMD type” or “LEAD type” in the list display of IC part number and Murata timing device part number combinations (g).

(k) Save as CSV file :

Clicking this button allows you to save data in the list display of part number combinations to a CSV file.


Murata Products List 2019/7/24
Category:タイミングデバイス
Selected conditions: (水晶振動子) AND (SMD type OR LEAD type)

IC品名	ICメーカー	品番	発振周波数	周波数許容	CL1(pF)	CL2(pF)	Rf(ohm)	Rd(ohm)	IC電圧(V Min	IC電圧(V Max	使用温度(-使用温度(-用途
HD7790	AMD	XRCGB27M	27	+/-25ppm	18	18	1M	0	10.8	13.2	-10	70 Consumer
HD7xxx	AMD	XRCGB27M	27	+/-25ppm	18	18	1M	0	10.8	13.2	-10	70 Consumer

(l) Manual :

Clicking this button displays a popup window shown below presenting cautions about IC part number and timing device part number combinations. Please read them carefully.

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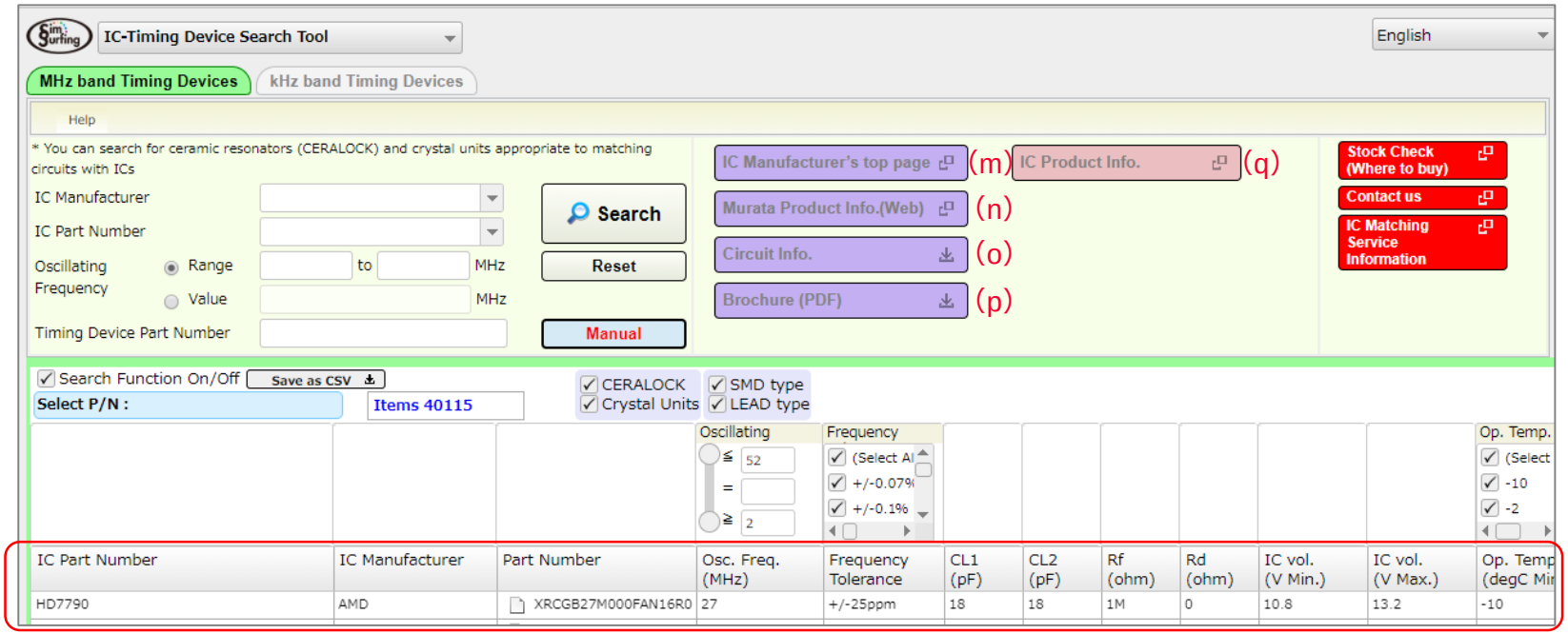
2.Quick Operation Guide
2-2. Screen Configuration (4/4)



(m) IC Manufacturer's website :

This button takes you to the website of the IC manufacturer for the IC part number currently selected in the list display (g).

(n) Product Info. (Web) or Reference SPEC (PDF) :

This button opens the detailed product information page in our web catalog for the timing device part number currently selected in the list display (g). In the case of unpublished on our website, opens a PDF data about detailed product information.

(o) Circuit Info. :

This button opens a data file containing information about the recommended circuit constant setting for the IC part number and timing device part number combination currently selected in the list display (g).

(p) Brochure (PDF) :

This button opens an application note about the recommended circuit constant setting for the IC part number and timing device part number combination currently selected in the list display (g).

(q) IC Product Info. :

This button opens an IC information file or an IC information web site of IC maker about the recommended circuit constant setting for the IC part number and timing device part number combination currently selected in the list display (g).

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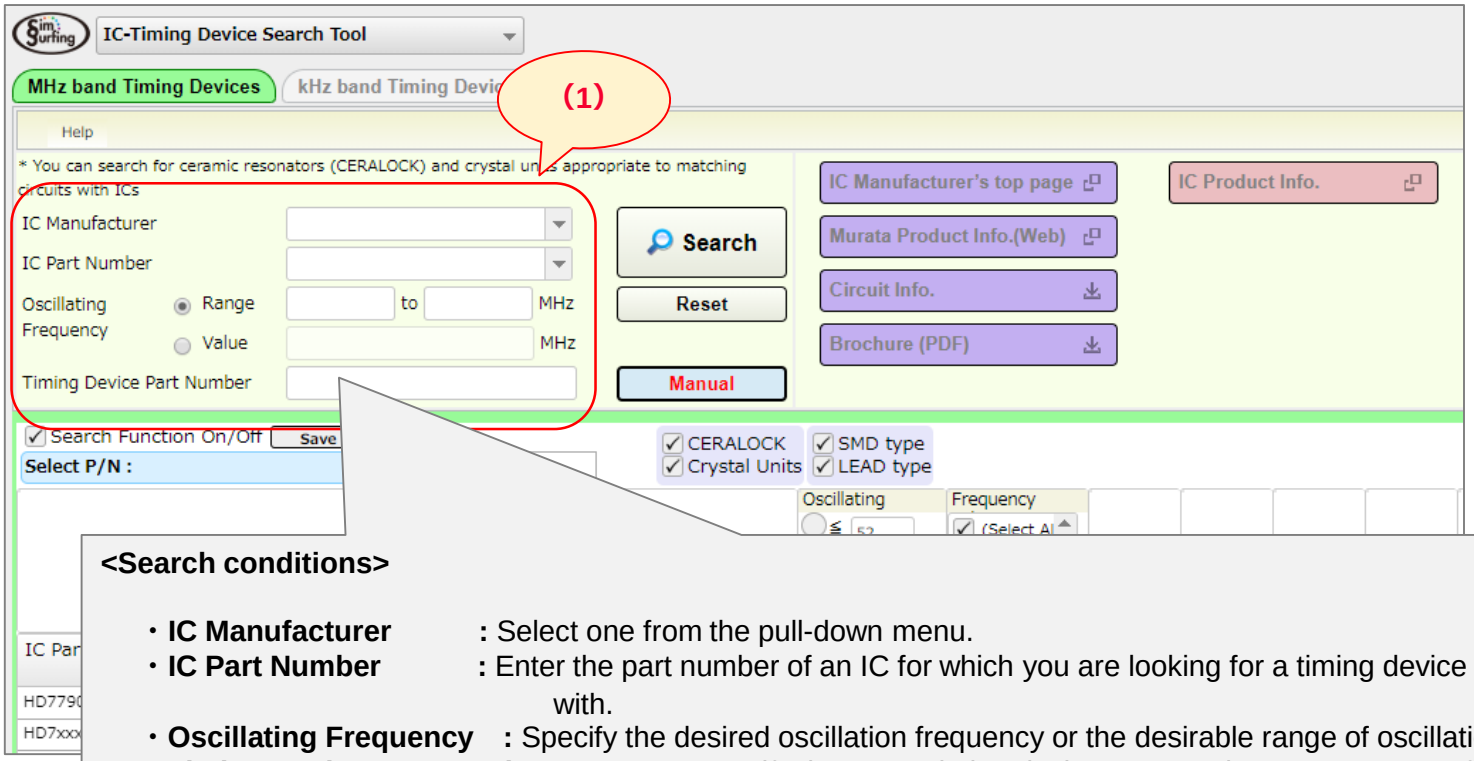
2.Quick Operation Guide
2-3. Basic Operations (1/3)

1. Input search conditions to the area (1).



<Search conditions>

- **IC Manufacturer** : Select one from the pull-down menu.
- **IC Part Number** : Enter the part number of an IC for which you are looking for a timing device to be used with.
- **Oscillating Frequency** : Specify the desired oscillation frequency or the desirable range of oscillation frequency.
- **Timing Device Part Number** : You may specify the target timing device part number or use a part of timing device part number as a search key.

(Please refer to the "3. Details of operation" for the search condition.)

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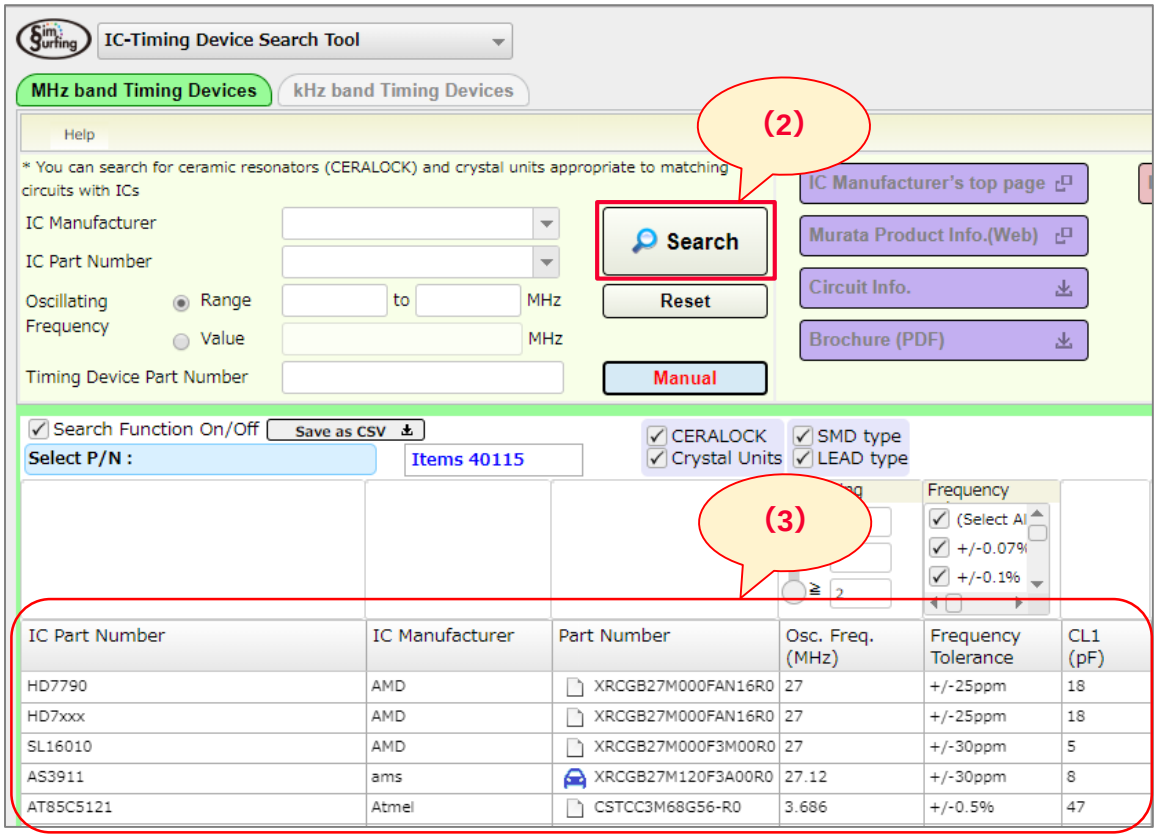
2.Quick Operation Guide
2-3. Basic Operations (2/3)

2. Click the (2) [Search] button, the search results are displayed on the (3) part number list.



You may add or modify the search keys to narrow down the search results concerning the IC part number and timing device part number combinations.

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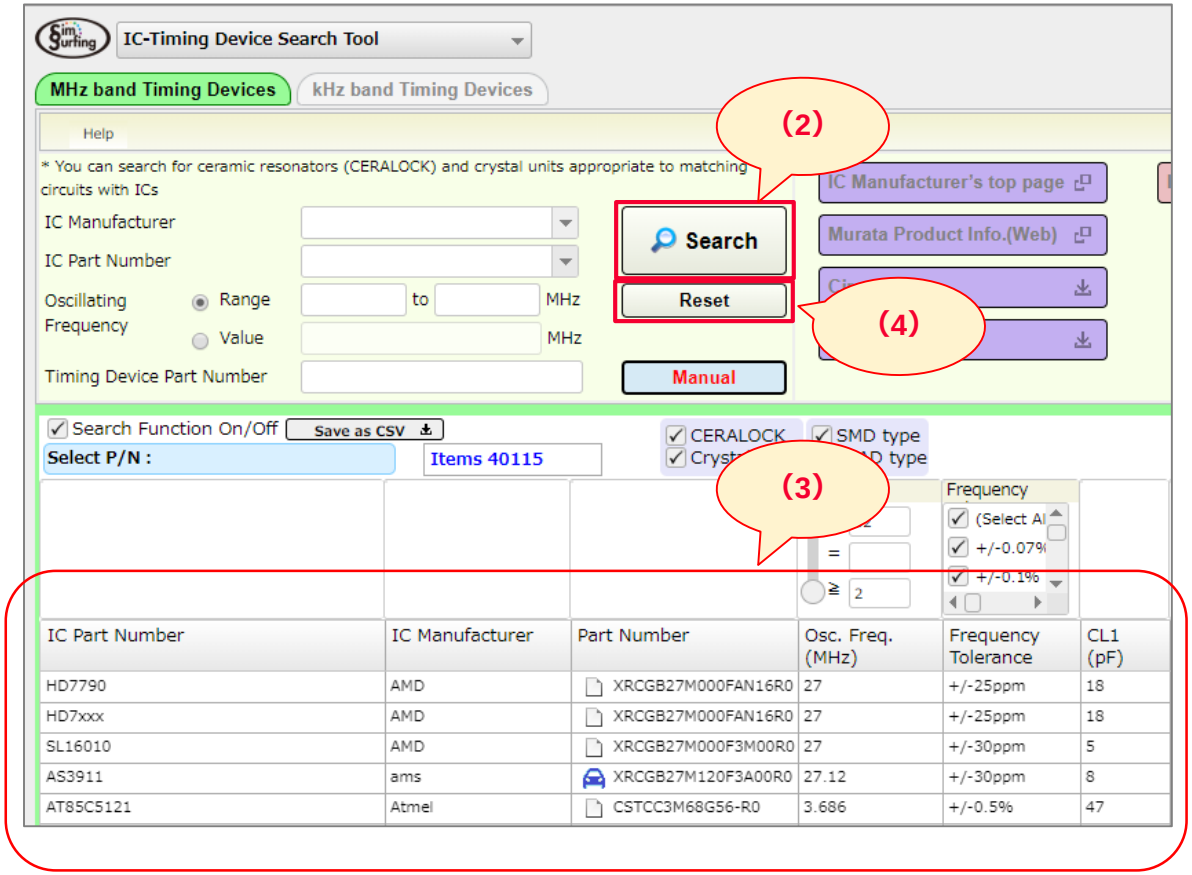
2.Quick Operation Guide
2-3. Basic Operations (3/3)

3. If a (3) part number list display of search results does not appear after clicking the (2) [Search] button, click the (4) [Reset] button to clear the search keys. Redefine your search using less keys and click the (2) [Search] button again.



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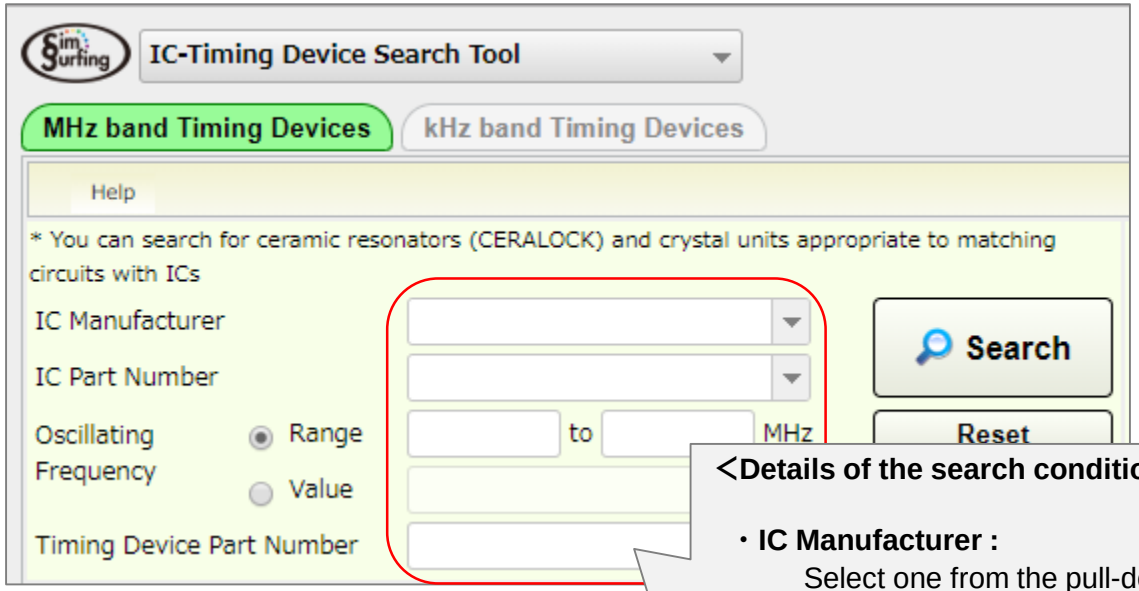
3. Details of Operation
3-1. Setting of the Search Condition



<Details of the search condition>

- **IC Manufacturer :**
  Select one from the pull-down menu.
- **IC Part Number :**
  Enter the part number of an IC for which you are looking for a timing device to be used with.
  It is possible to search by partial IC part number.
  The "μ" (micro) character is replaced with "u" (small character).
  Please enter small "u" instead. Also please note only capital "U" should be used when alphabetical "U" is the key to search.
- **Oscillating Frequency :**
  Specify the desired oscillation frequency or the desirable range of oscillation frequency.Select a frequency or frequency range using the radio buttons and then enter value(s) into the field(s).
- **Timing Device Part Number :**
  You may specify the target timing device part number or use a part of timing device part number as a search key.

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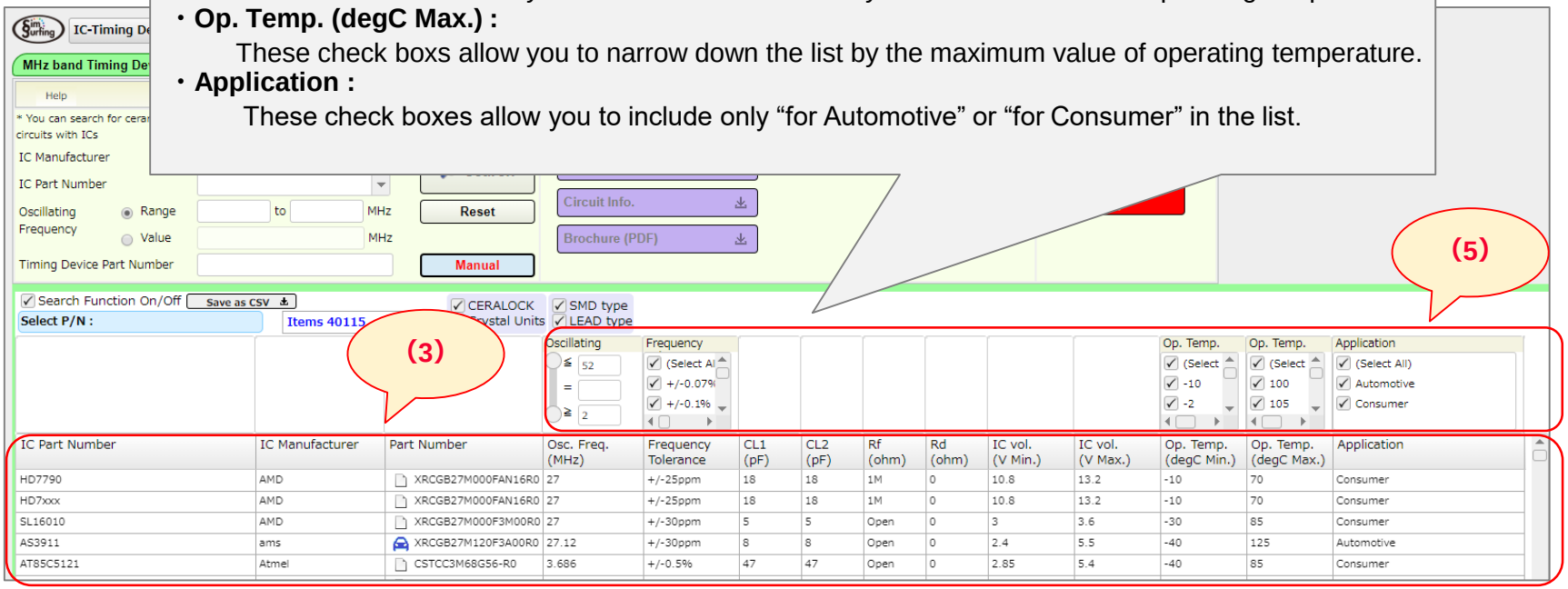
3. Details of Operation
3-2. Search Condition of Timing Devices

- This (5) search conditions of timing device allow you to more narrow down the (3) part number list.

- **Osc. Freq. :**
  This item allows you to narrow down the list by frequency range.
- **Frequency Tolerance :**
  These check boxs allow you to narrow down the list by the frequency tolerance.
- **Op. Temp. (degC Min.) :**
  These check boxs allow you to narrow down the list by the minimum value of operating temperature.
- **Op. Temp. (degC Max.) :**
  These check boxs allow you to narrow down the list by the maximum value of operating temperature.
- **Application :**
  These check boxes allow you to include only “for Automotive” or “for Consumer” in the list.



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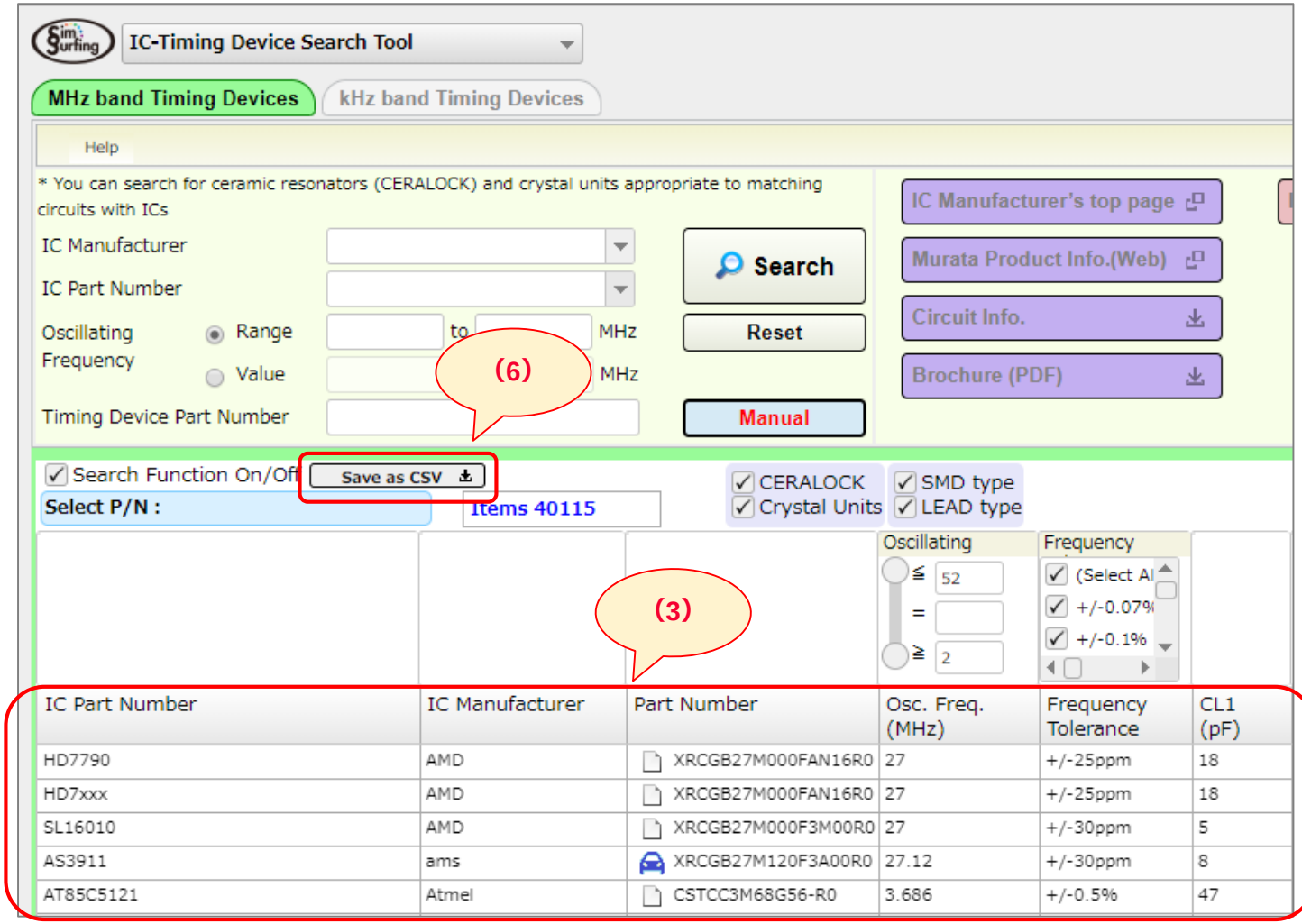
3. Details of Operation
3-3. Save the Part Number List as CSV File

- Clicking the (6) [Save as CSV] button allows you to save the list indicated on the (3) part number list to a CSV file.



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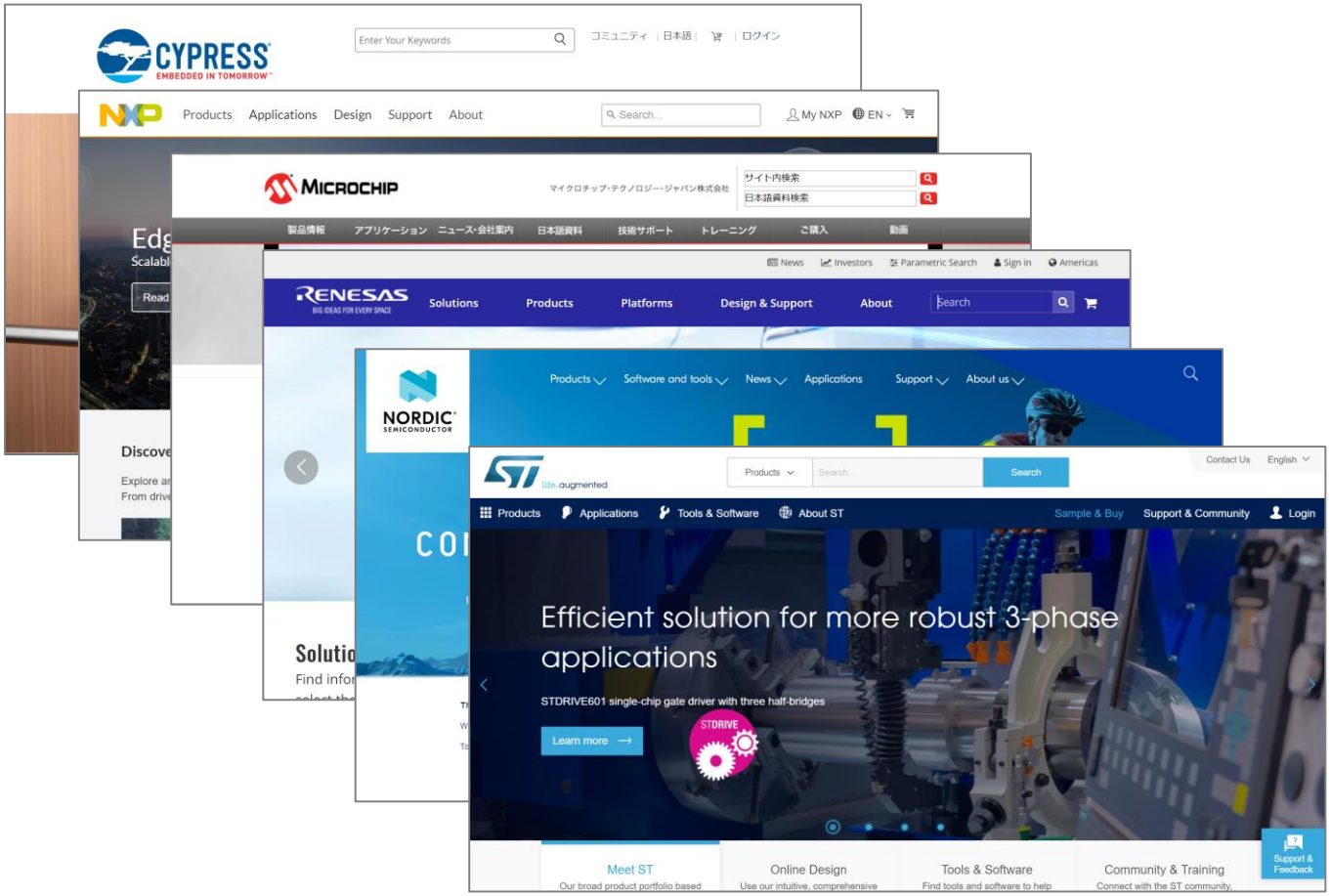
Appendix
Examples of Published Materials (1/3)

- ✓ (m) Examples of the linked IC manufacturers' websites



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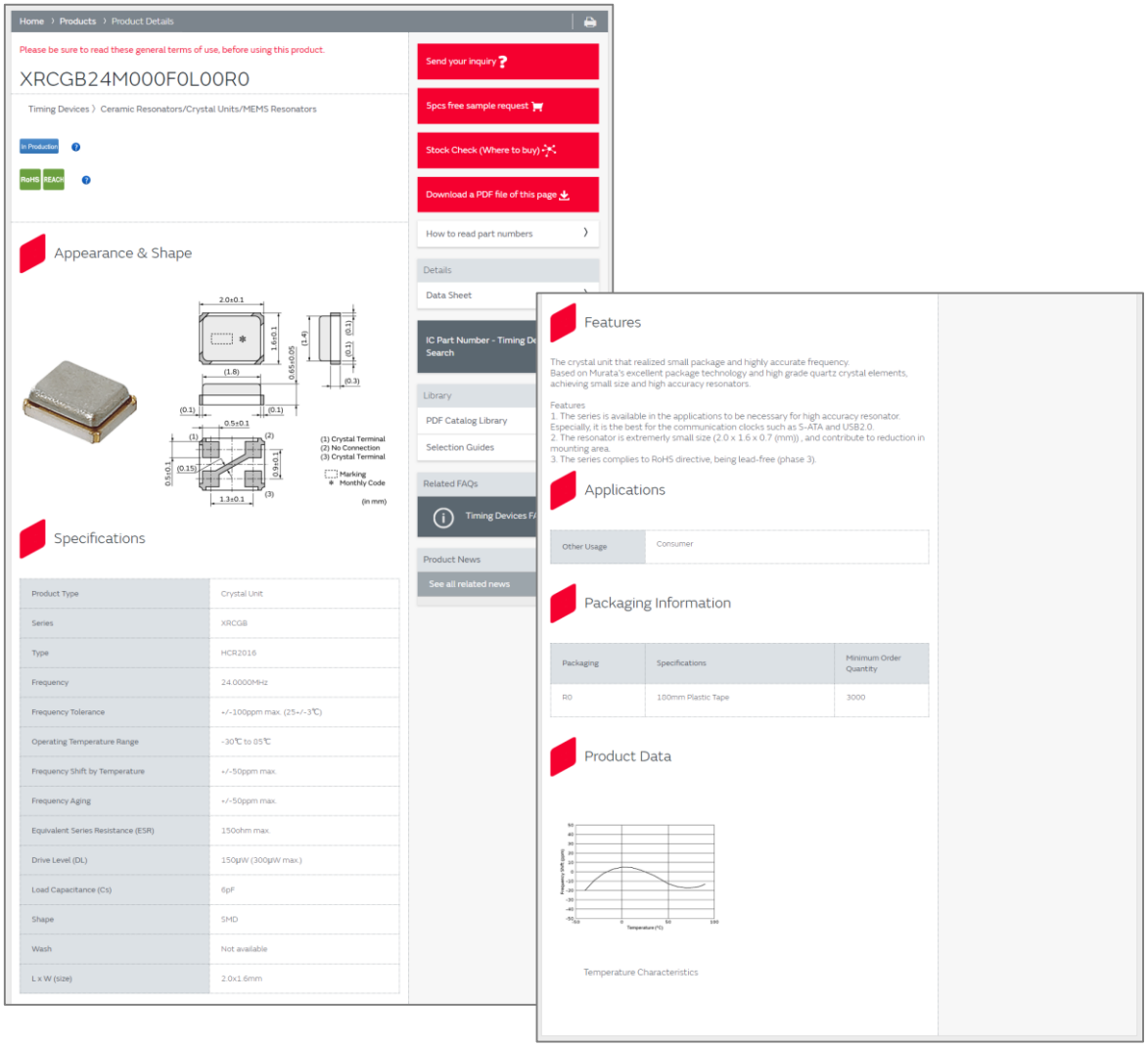
Appendix
Examples of Published Materials (2/3)

✓ (n) Example of Product Info. (Web)



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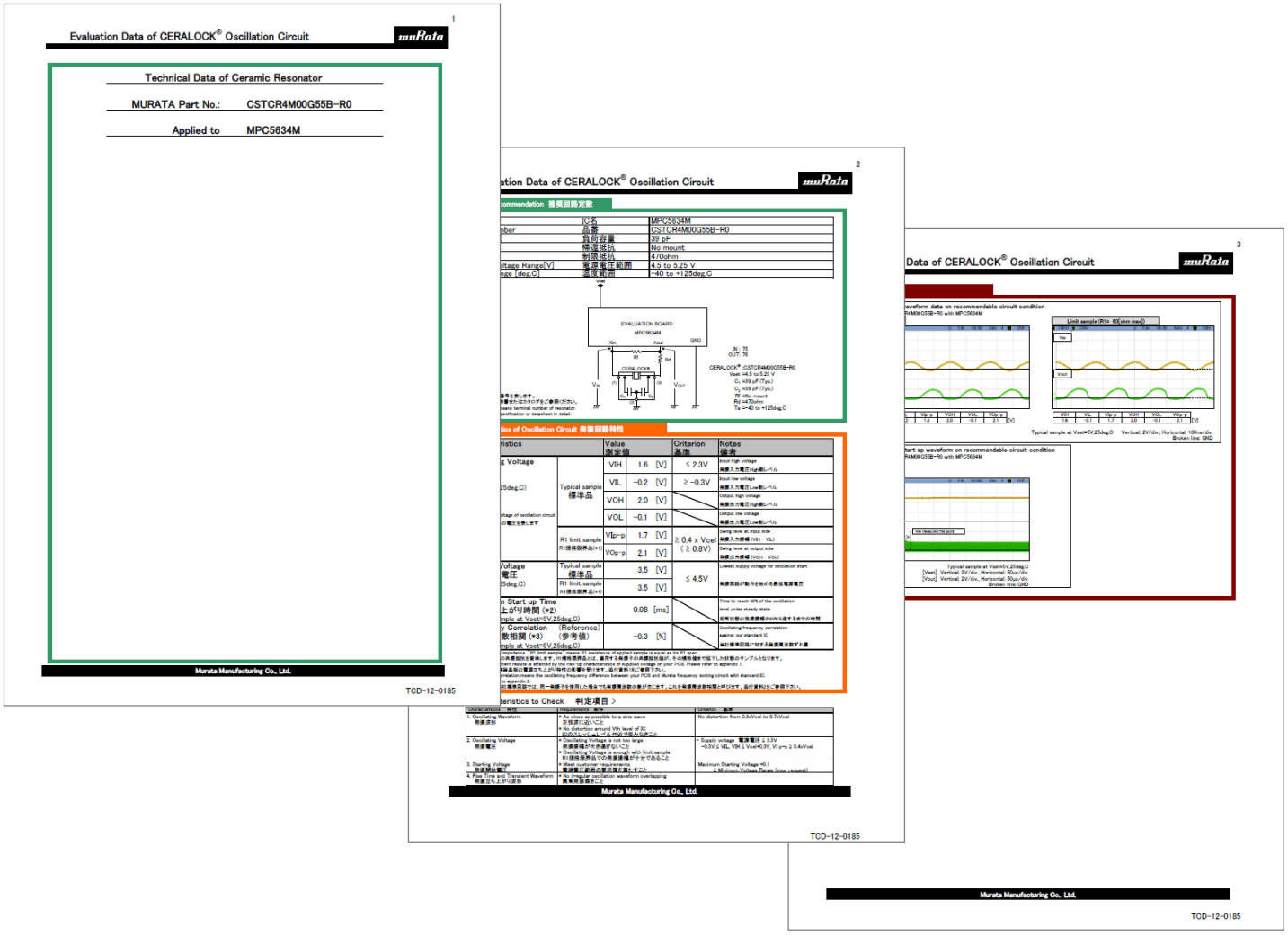
Appendix
Examples of Published Materials (3/3)

- ✓ (o) Example of Circuit Info.



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