Manual of Characteristic Viewer

ver 1.1

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＜Update History＞

2024.4.4 Issuance of 1st edition (ver 1.0)

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Device Solution Business Division
Panasonic Industry Co., Ltd

1.Overview of Characteristic Viewer

Characteristic Viewer is the tool which represent various characteristics of a selected part by means of a graph of the frequency axis and temperature axis, etc.
This tool provides you with a simple procedure for checking characteristics of Panasonic's electronic parts such as characteristic value changes within the operational frequency range, etc. You can use it as a tool for selecting a Panasonic's electronic parts.

2.Features

・Able to display the series specification and characteristic graph when user searches for the part number.
・Able to export the characteristic value (numeric data) to Excel.
・Able to set any display range of Y/X axis of the graph.

3.Target products and displayed characteristic items

Able to display the following characteristic values for each product.

Conductive Polymer Aluminum Electrolytic Capacitors (SP-Cap) Conductive Polymer Tantalum Solid Capacitors (POSCAP)		
Inductance component	Impedance	|Z|
	Resistance component	ESR
	Capacitance	Capacitance
	Inductance component	ESL
Temperature characteristics	Capacitance change rate	⊿C/C Temp.
	Resistance component	ESR Temp.

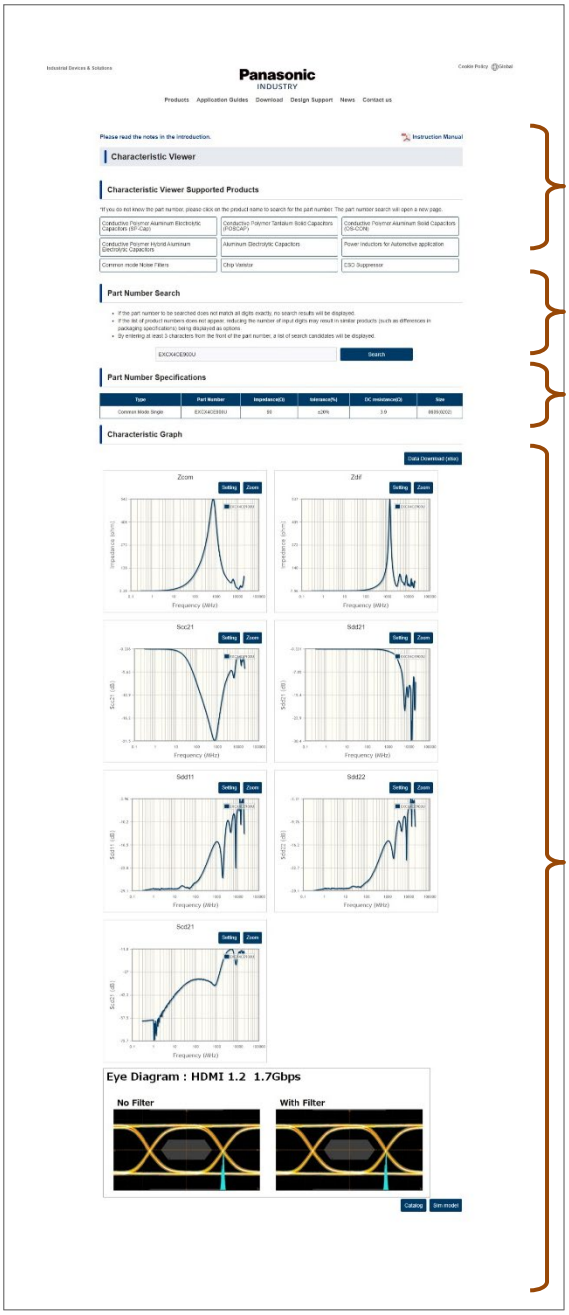
Conductive Polymer Aluminum Solid Capacitors (OS-CON) Conductive Polymer Hybrid Aluminum Electrolytic Capacitors Aluminum Electrolytic Capacitors		
Frequency characteristics	Impedance	|Z|
	Resistance component	ESR
	Capacitance	Capacitance
	Inductance component	ESL
Temperature characteristics	Capacitance change rate	⊿C/C Temp.
	Dissipation factor	Tanδ Temp.
	Resistance component	ESR Temp.

Power Inductors for Automotive application		
Frequency characteristics	Impedance	|Z|
	Resistance component	ACR
	Inductance	|L|
	Q characteristics	|Q|
	Phase characteristics	θ
	Reactance	|X|
DC-Bias characteristics		DCBias-Inductance
Self temperature rise		Idc-⊿T

Chip Varistor		
Frequency characteristics	Impedance	|Z|
	Capacitance	Capacitance
	Attenuation	S21
ESD Suppressor		
Frequency characteristics	Capacitance	Capacitance
	Attenuation	S21
ESD Suppression Voltage Waveform		Voltage

Common Mode Noise Filter		
Frequency characteristics	Impedance	Zcom
		Zdif
	Attenuation	Scc21
		Sdd21
		Sdd11
		Sdd22
		Scd21
Eye Diagram		

4.Website Overall Structure



The characteristic viewer consists of the following four items.

(a) Products compatible with the characteristics viewer

(b) Part number search

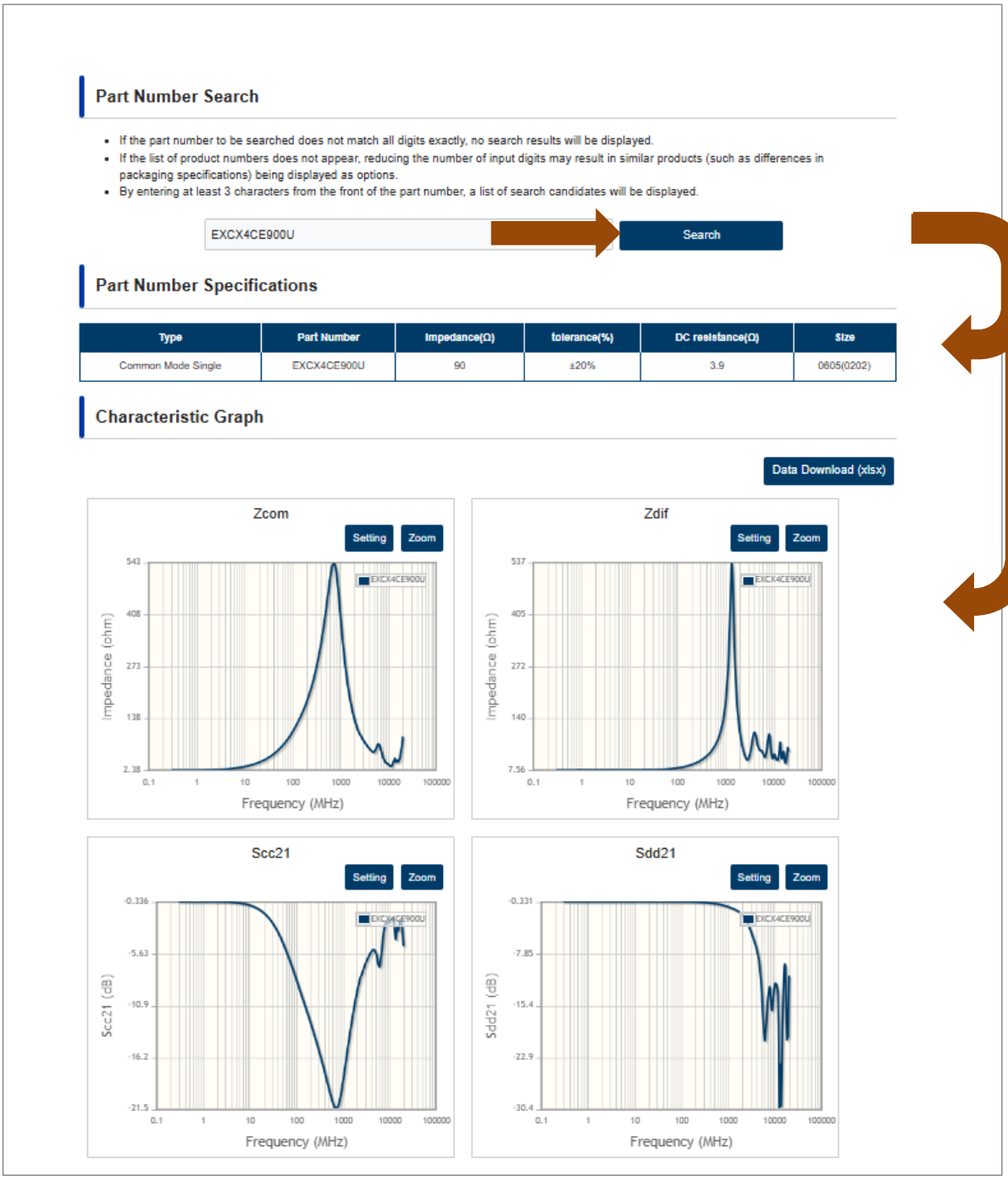
(c) Part number specifications

(d) Characteristic graph

The following pages explain how to use the Viewer.

5.How to use

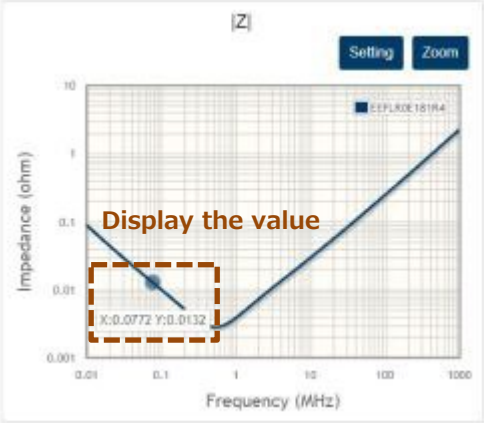
Enter the part number to be viewed in the Part Number Search field and press the Search button to display the part number specifications and characteristics graph.



The following explanations are given on the following pages.

① Display of X-axis and Y-axis value
② Zoom button
③ Setting button
④ Data Download (xlsx) button
⑤ Catalog button
⑥ Sim model button

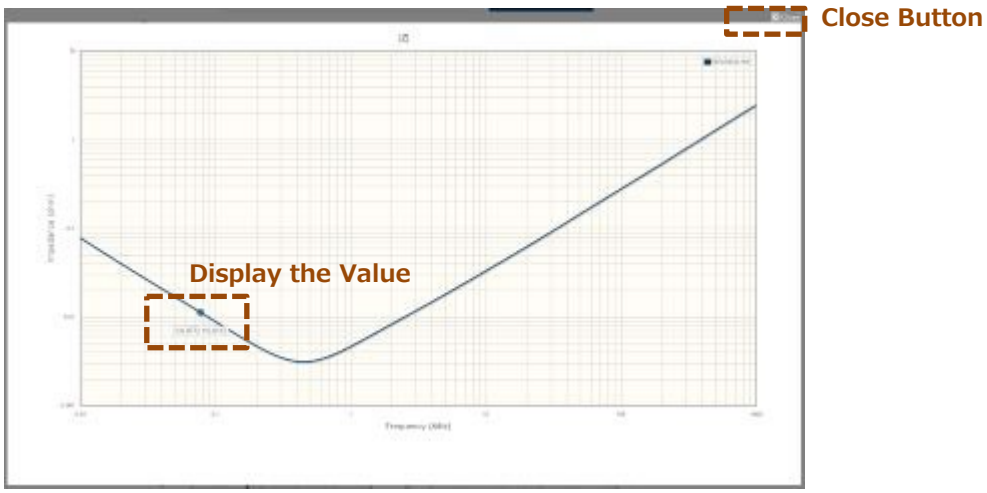
① Display of X-axis and Y-axis value



Displays the X-axis and Y-axis values at the position where the cursor is hovered over the graph line.

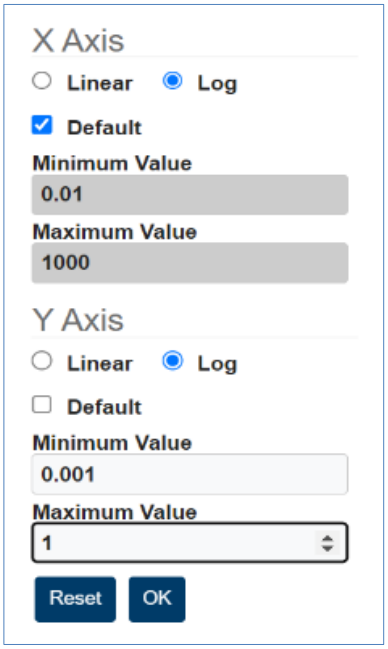
② Zoom button

Click the Zoom button to display the target graph in full screen. To close the screen, click the close button in the upper right corner. Displays the X-axis and Y-axis values at the position where the cursor is hovered over the graph line.



③ Setting Button

You can change the scale of the X-axis and Y-axis.



X Axis, Y Axis

Linear: Display the scale at equal intervals

Log: Set the scale to logarithmic display

Default（with check mark）：Initial value

Default（without check mark）：Allows minimum and maximum value input

Reset: Restore the graph to its pre-Setting display.

OK: Changes the X and Y axes of the graph to the set values and displays them

*The Linear and Log buttons are hidden in the Linear display graph.

④ Data download button

Click "Data Download (xlsx)" to download an EXCEL file containing part information and various characteristic values. The downloaded EXCEL file contains separate sheets for parts information, frequency characteristics data, temperature characteristics data, and other items.

◆Parts Information Sheet◆

Series	Part Number	Rated Voltage[V]	Capacitance[μF]	ESR[mΩ]	Ripple Current[mA]	L[mm]	W[mm]	H[mm]
LR (SP-Cap)	2SFLR002221R4	2	220	4.5	6500	7.3	4.3	1

◆Frequency response sheet◆

A	B	C	D	E
These are reference data and do not guarantee product characteristics.				
Freq	Z	ESR	CapMF	ESL
0.0001	7.550513655	0.045518582	210.7907389	0
0.000104112	7.253591775	0.043988205	210.7536027	0
0.000108393	6.968331206	0.042485834	210.7169247	0
0.00011285	6.694272328	0.041015207	210.6807751	0
0.00011749	6.430974084	0.039579675	210.6452147	0
0.000122321	6.178013201	0.038182185	210.6102939	0
0.00012735	5.93498344	0.036825258	210.5760526	0
0.000132587	5.701494879	0.035510985	210.5425201	0
0.000138038	5.47717321	0.034241028	210.509715	0
0.000143714	5.26165908	0.03301663	210.4776454	0

⑤ Catalog Button

Pressing the Catalog button displays the catalog for the part number you are viewing in a separate tab.

⑥ Sim model button

Press the Sim Model button to download the simulation model (S-parameters, etc.) in Zip format.