

# How to configure a DMM scan using EasyDMM

September 19, 2018

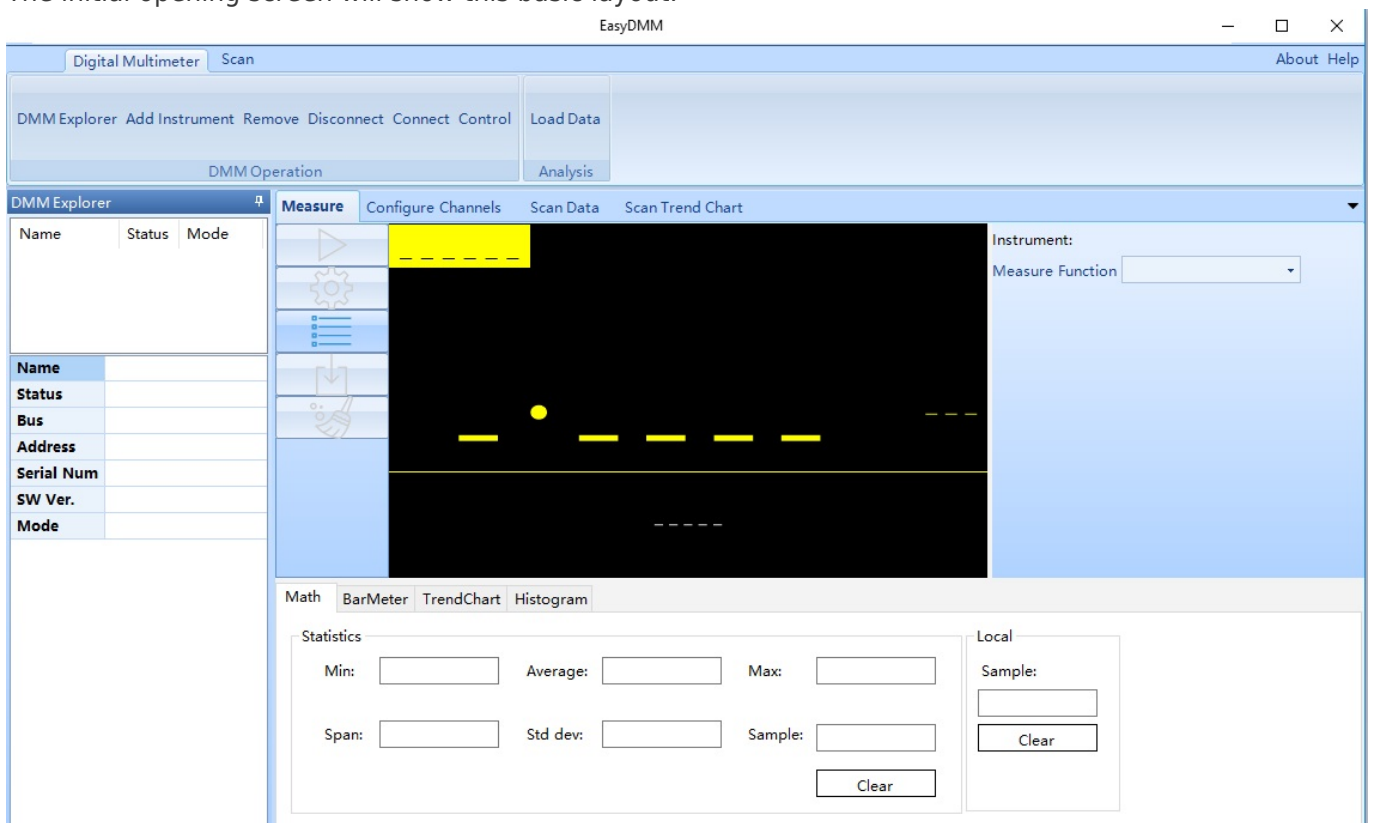
The SIGLENT SDM3055-SC and SDM3065-SC instruments are digital multimeters with switch cards that allow for up to 12 voltage-function measurements (and an additional separate 4 current measurement channels).

SIGLENTs EasyDMM software provides easy instrument control and data collection.

In this note, we will show how to configure EasyDMM to perform a scan

1. Download and install EasyDMM. You can find the download instructions and files here: [DMM Software](#)
2. Connect the SDM to the controlling computer or network. The SDMs have USB and LAN connections. In this note, we are using a USB connection
3. Open EasyDMM by clicking on the desktop icon or running the executable from the start menu.

The initial opening screen will show this basic layout:

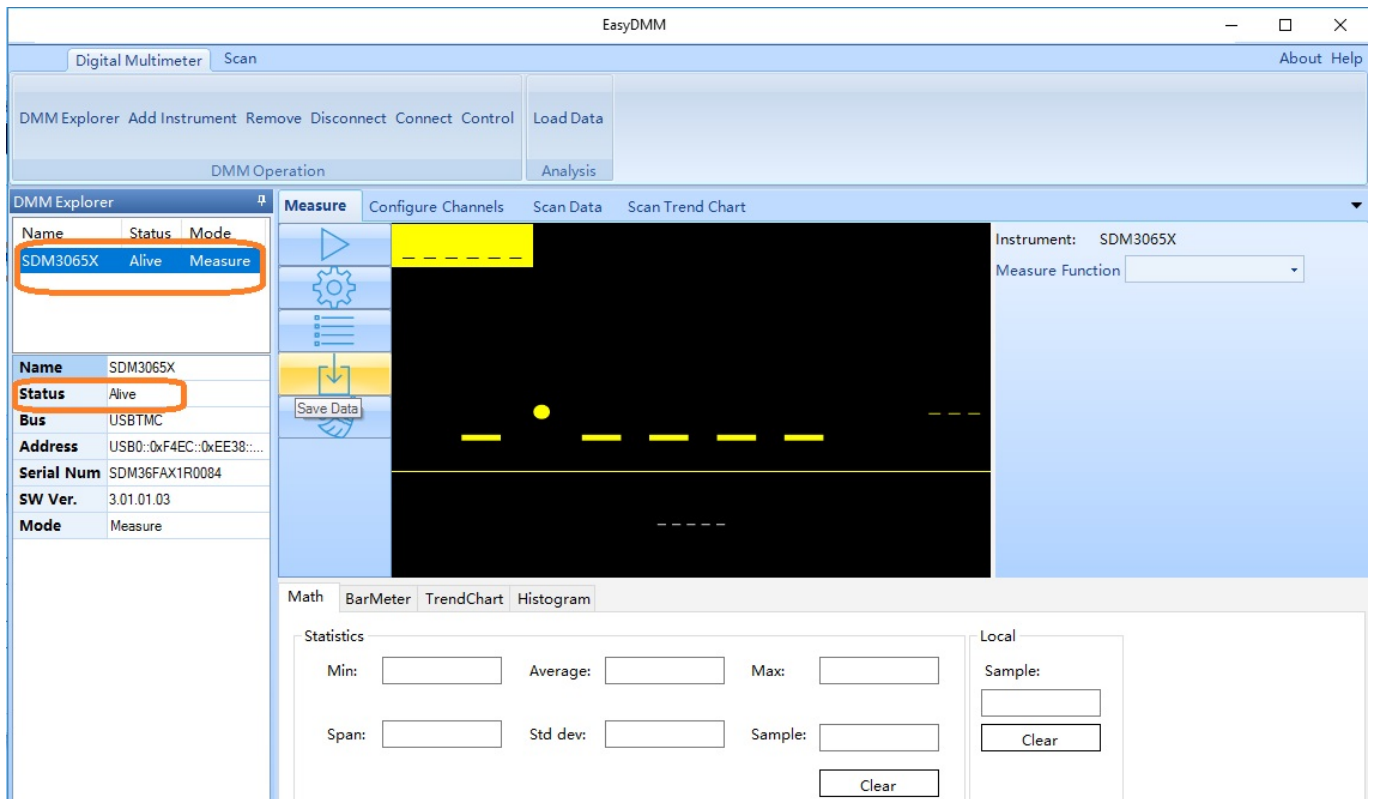


4. Now, click on Add Instrument, select the USB device you wish to control (USBTMC as shown), and click OK:

The screenshot shows the EasyDMM software interface. At the top, there are tabs for 'Digital Multimeter' and 'Scan'. Below these are buttons for 'DMM Explorer', 'Add Instrument', 'Remove', 'Disconnect', 'Connect', 'Control', and 'Load Data'. The 'Add Instrument' button is highlighted with an orange box. Below the buttons is a 'DMM Explorer' table with columns for Name, Status, and Mode. To the right of the table is a 'Measure' section with a graph area and a 'Math' section with 'BarMeter', 'TrendChart', and 'Histogram' options. The 'Statistics' section includes fields for Min, Average, Max, Span, Std dev, and Sample, along with 'Clear' buttons. The 'Local' section has a 'Sample' field and a 'Clear' button.

The screenshot shows the EasyDMM software interface with the 'Add Device' dialog box open. The dialog box has a title bar 'Add Device' and a 'USB TMC' section. Under 'Connected devices:', there is a list of devices. One device is highlighted with an orange box: 'SDM3065X "USB0::0xF4EC::0xEE38::SDM36FAX1R0084::INSTR"'. Below the list are buttons for 'Not Connected Device', 'OK', and 'Close'. The 'OK' button is highlighted with an orange box. The background shows the same software interface as the first screenshot.

It's ALIVE!!!!



5. Now, select Scan Mode. Note that the Scanner field appears:

EasyDMM

Digital Multimeter Scan

DMM Explorer Add Instrument Remove Disconnect Connect Control Load Data

DMM Operation Analysis

DMM Explorer

Name	Status	Mode
SDM3065X	Alive	Measure

**Name** SDM3065X  
**Status** Alive  
**Bus** USBTMC  
**Address** USB0::0xF4EC::0xEE38:.....  
**Serial Num** SDM36FAX1R0084  
**SW Ver.** 3.01.01.03  
**Mode** Measure  
 None  
 Measure  
 Scan

Instrument: SDM3065X  
Measure Function

Math BarMeter TrendChart Histogram

Statistics

Min:  Average:  Max:

Span:  Std dev:  Sample:

Local

Sample:

Clear

EasyDMM

Digital Multimeter Scan

DMM Explorer Add Instrument Remove Disconnect Connect Control Load Data

DMM Operation Analysis

DMM Explorer

Name	Status	Mode
SDM3065X	Alive	Scan

**Name** SDM3065X  
**Status** Alive  
**Bus** USBTMC  
**Address** USB0::0xF4EC::0xEE38:.....  
**Serial Num** SDM36FAX1R0084  
**SW Ver.** 3.01.01.03  
**Mode** Scan  
**Module** 16 Channel Scanner

Instrument: SDM3065X  
Measure Function

Math BarMeter TrendChart Histogram

Statistics

Min:  Average:  Max:

Span:  Std dev:  Sample:

Local

Sample:

Clear

6. Select Configure Channels. Select the channels you wish to control using the checkbox. Also select the function, range, etc...:

The screenshot shows the 'EasyDMM' software interface. The 'Configure Channels' window is open, displaying a table of channels. The 'Scan' column has checkboxes for each channel, with channels 101, 105, and 110 checked. The 'Function' column shows 'DC Voltage' for channels 101-112 and 'DC Current' for channels 113-116. The 'Range' column shows '20V' for channels 101, 105, and 110, and 'Auto' for others. The 'Speed' column shows 'Fast' for channels 101, 105, and 110, and 'Slow' for others. The 'Scaling' column shows 'Gain(K)' and 'Offset(B)' for each channel. The 'Alarm Limit' column shows 'Low' and 'High' for each channel.

Channel	Scan	Name	Measurement				Scaling(KX+B)		Alarm Limit			
			Function	Range	Speed	More	Gain(K)	Offset(B)	Mode	Low	High	
SDM3065X												
16 Channel Scanner												
101	<input checked="" type="checkbox"/>		DC Voltage	20V	Fast	<input type="checkbox"/>	1	0	Off	0	0	
102	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
103	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
104	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
105	<input checked="" type="checkbox"/>		DC Voltage	20V	Fast	<input type="checkbox"/>	1	0	Off	0	0	
106	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
107	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
108	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
109	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
110	<input checked="" type="checkbox"/>		DC Voltage	20V	Fast	<input type="checkbox"/>	1	0	Off	0	0	
111	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
112	<input type="checkbox"/>		DC Voltage	Auto	Slow	<input type="checkbox"/>	1	0	Off	0	0	
113	<input type="checkbox"/>		DC Current	2A	Slow	<input type="checkbox"/>	1	0	Off	0	0	
114	<input type="checkbox"/>		DC Current	2A	Slow	<input type="checkbox"/>	1	0	Off	0	0	
115	<input type="checkbox"/>		DC Current	2A	Slow	<input type="checkbox"/>	1	0	Off	0	0	
116	<input type="checkbox"/>		DC Current	2A	Slow	<input type="checkbox"/>	1	0	Off	0	0	

7. After configuring the channels, select Scan Data and set the start, interval, stop, and data control values:

EasyDMM

Digital Multimeter Scan About Help

DMM Explorer Add Instrument Remove Disconnect Connect Control Load Data

DMM Operation Analysis

DMM Explorer Measure Configure Channels **Scan Data** Scan Trend Chart

Name	Status	Mode	Instrument	Scan Control			Data Control	Start/Stop	Scan Status		
				Start	Interval	Stop	Save Data		Status	Elapsed Time	
SDM3065X	Alive	Scan	SDM3065X	Immediately	1s	2 Scans	None	<input type="checkbox"/> OFF	Stop	0	00:00:00.000

Result										
	Instrument	Channel	Measurement	Data	Min	Max	Average	Total	Alarm	
▶ 0	SDM3065X	101	DC Voltage(V)							
1	SDM3065X	105	DC Voltage(V)							
2	SDM3065X	110	DC Voltage(V)							

**DMM Explorer**

**Name** SDM3065X

**Status** Alive

**Bus** USBTMC

**Address** USB0::0xF4EC::0xEE38:....

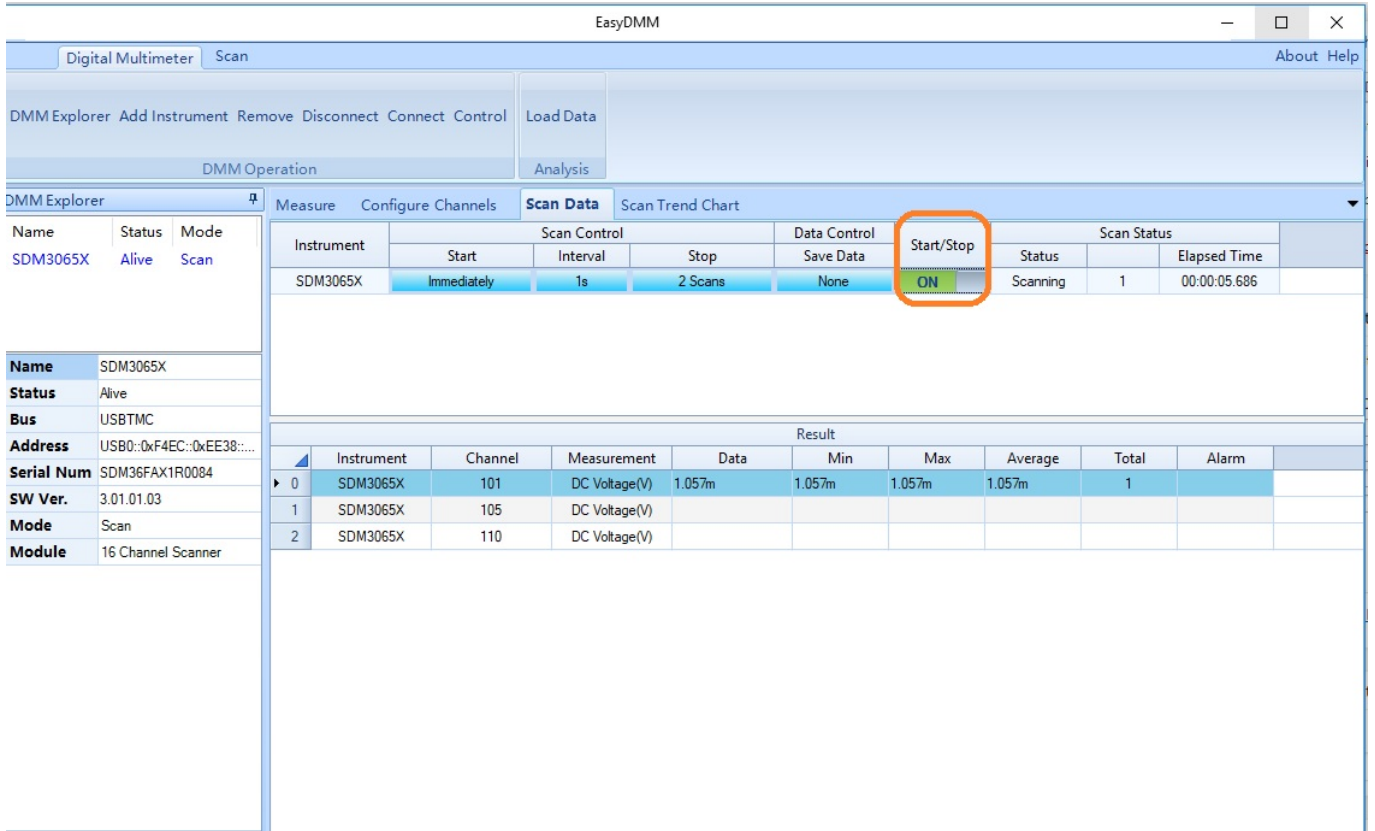
**Serial Num** SDM36FAX1R0084

**SW Ver.** 3.01.01.03

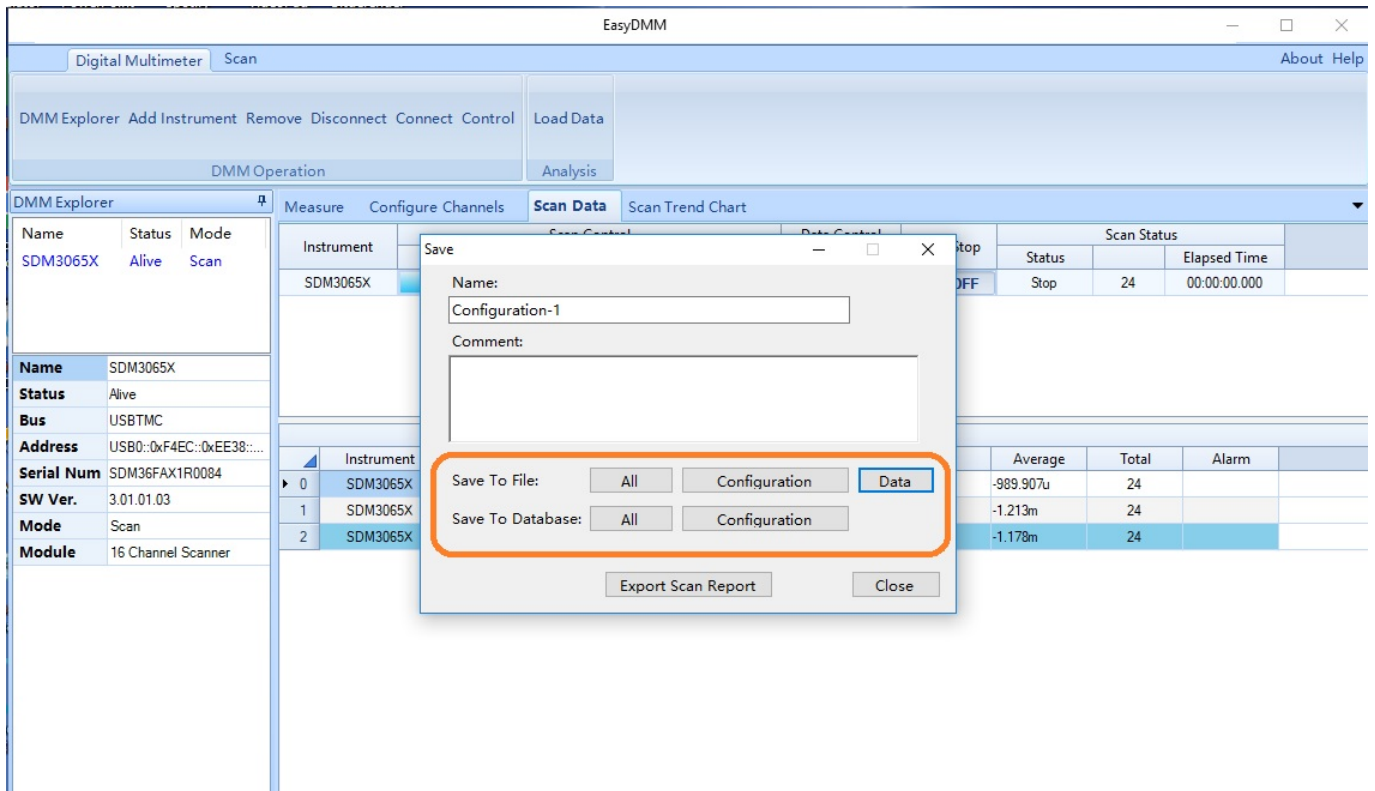
**Mode** Scan

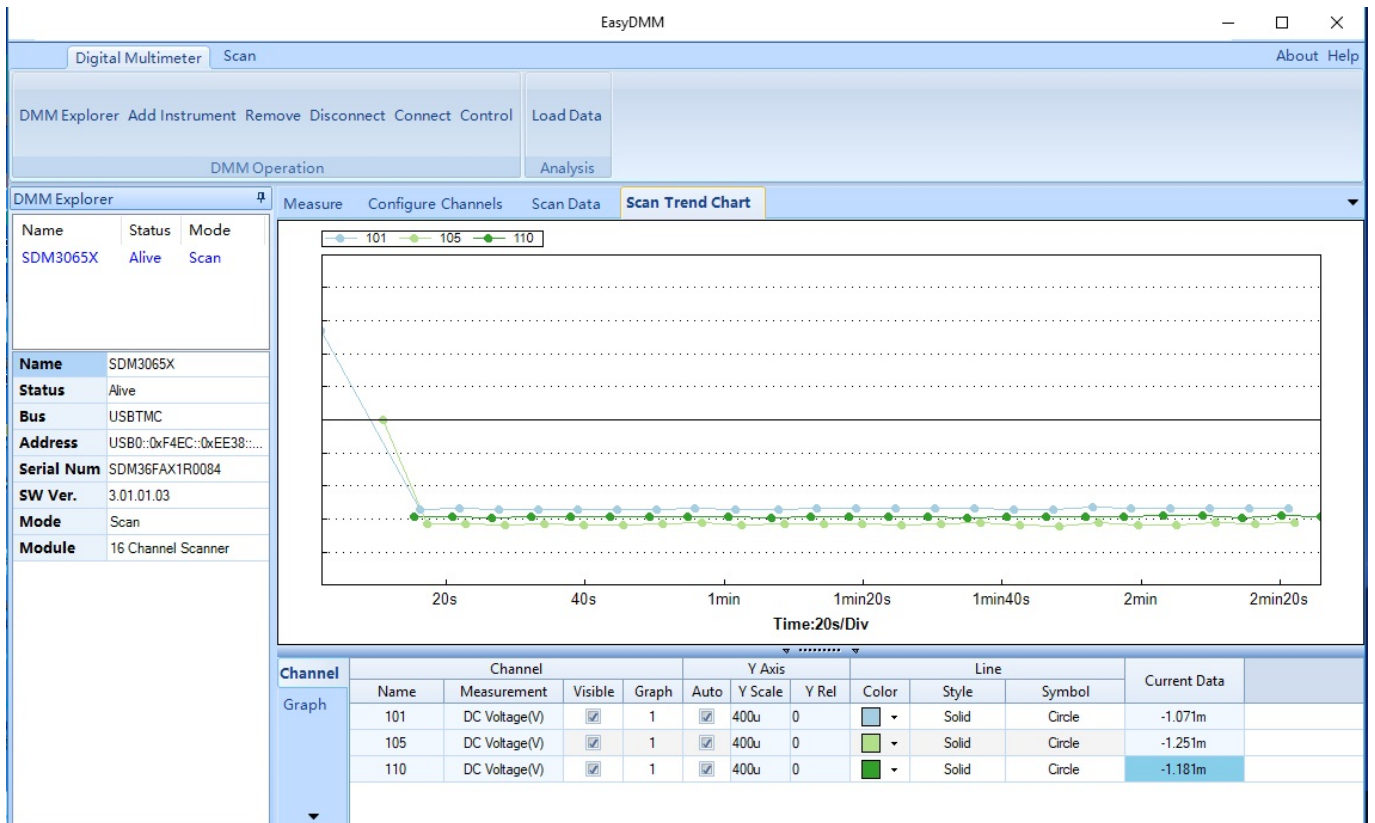
**Module** 16 Channel Scanner

8. When you want to start the scan, click on the Start/Stop slider as shown:



After the scan is complete, you can save the data or view using the Scan Trend Chart:









### **North American Headquarters**

SIGLENT Technologies NA  
6557 Cochran Rd Solon, Ohio 44139  
Tel: 440-398-5800  
Toll Free: 877-515-5551  
Fax: 440-399-1211  
[info@siglent.com](mailto:info@siglent.com)  
[www.siglentamerica.com/](http://www.siglentamerica.com/)

### **European Sales Offices**

SIGLENT TECHNOLOGIES GERMANY GmbH  
Staetzlinger Str. 70  
86165 Augsburg, Germany  
Tel: +49(0)-821-666 0 111 0  
Fax: +49(0)-821-666 0 111 22  
[info-eu@siglent.com](mailto:info-eu@siglent.com)  
[www.siglenteu.com](http://www.siglenteu.com)

### **Asian Headquarters**

SIGLENT TECHNOLOGIES CO., LTD.  
Blog No.4 & No.5, Antongda Industrial Zone,  
3rd Liuxian Road, Bao'an District,  
Shenzhen, 518101, China.  
Tel: + 86 755 3661 5186  
Fax: + 86 755 3359 1582  
[sales@siglent.com](mailto:sales@siglent.com)  
[www.siglent.com/ens](http://www.siglent.com/ens)