

TEST DATA OF STMGFS304805

Regulated DC Power Supply
February 2, 2013

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COSEL CO.,LTD.

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Model		STMGFS304805																																																																																
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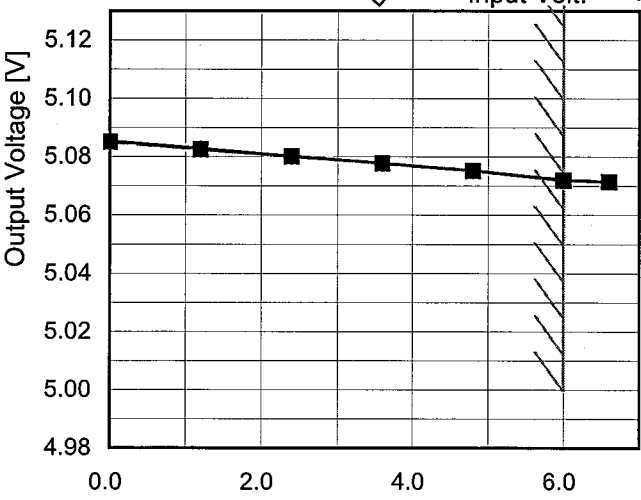
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<div>Model</div> <div>STMGFS304805</div>		<div>Temperature</div> <div>25°C</div>																																	
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Object	+5V6A					
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		---□--- Input Volt. 24V				
		---*--- Input Volt. 36V				
		---○--- Input Volt. 48V				
		---◇--- Input Volt. 76V				
						

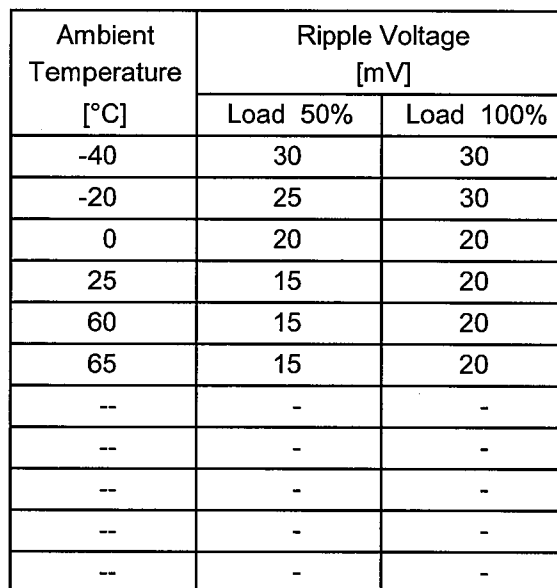
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Testing Circuitry Figure B

2.Values



Note: Slanted line shows the range of the rated ambient temperature.

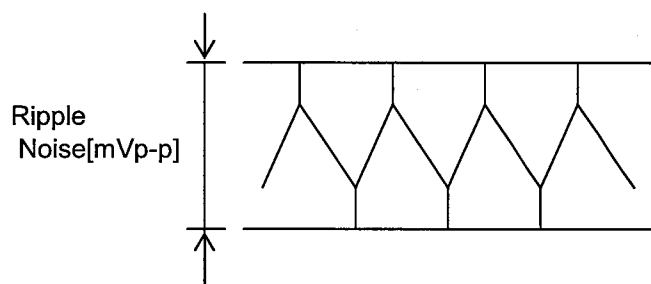


Fig.Complex Ripple Noise Wave Form

Model		STMGFS304805	
Item		Ambient Temperature Drift	
Object		+5V6A	

1.Graph

—△—

Input Volt.

18V

---□---

Input Volt.

24V

---*---

Input Volt.

36V

---○---

Input Volt.

48V

---◇---

Input Volt.

76V

Output Voltage [V]



		Testing Circuitry Figure A
Model	STMGFS304805	
Item	Output Voltage Accuracy	
Object	+5V6A	

1. Output Voltage Accuracy

This is defined as the value of the output voltage, regulation load, ambient temperature and input voltage varied at random in the range as specified below.

Temperature : -20 - 60°C

Input Voltage : 18 - 76V

Load Current : 0 - 6A

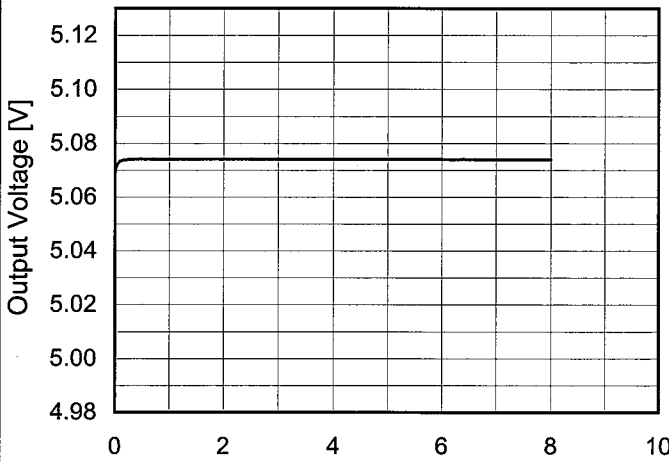
* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

* Output Voltage Accuracy (Ratio) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	60	18	0	5.090	±17	±0.3
Minimum Voltage	-20	18	6	5.057		



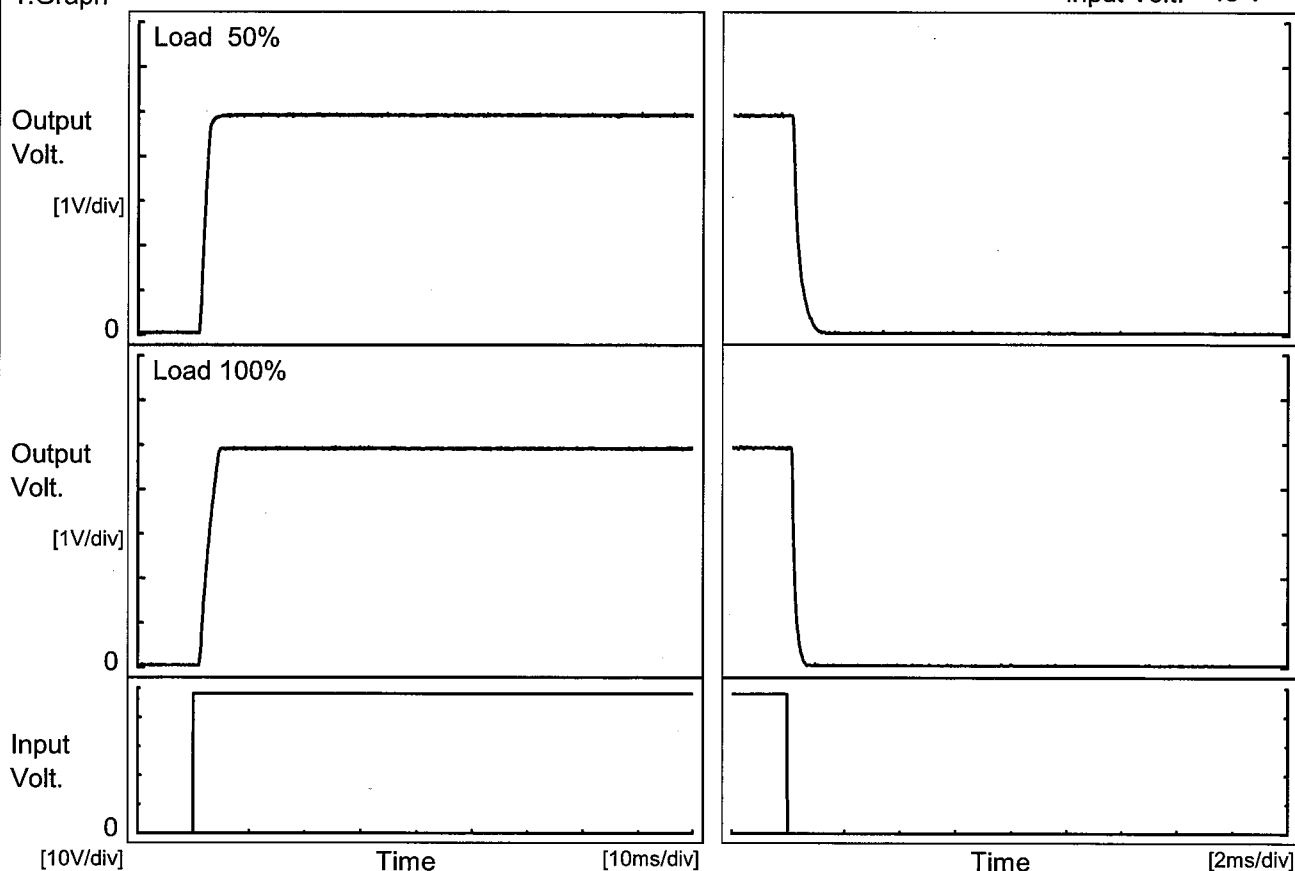
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Object	+5V6A	Testing Circuitry	Figure A																						
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<div><p>Output Voltage [V]</p><p>Time [H]</p><p>Input Volt. 48V</p><p>Load 100%</p></div>		<table><tr><th>Time since start [H]</th><th>Output Voltage [V]</th></tr><tr><td>0.0</td><td>5.070</td></tr><tr><td>0.5</td><td>5.074</td></tr><tr><td>1.0</td><td>5.074</td></tr><tr><td>2.0</td><td>5.074</td></tr><tr><td>3.0</td><td>5.074</td></tr><tr><td>4.0</td><td>5.074</td></tr><tr><td>5.0</td><td>5.074</td></tr><tr><td>6.0</td><td>5.074</td></tr><tr><td>7.0</td><td>5.074</td></tr><tr><td>8.0</td><td>5.074</td></tr></table>		Time since start [H]	Output Voltage [V]	0.0	5.070	0.5	5.074	1.0	5.074	2.0	5.074	3.0	5.074	4.0	5.074	5.0	5.074	6.0	5.074	7.0	5.074	8.0	5.074
Time since start [H]	Output Voltage [V]																								
0.0	5.070																								
0.5	5.074																								
1.0	5.074																								
2.0	5.074																								
3.0	5.074																								
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5.0	5.074																								
6.0	5.074																								
7.0	5.074																								
8.0	5.074																								

COSEL

Model	STMGFS304805	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+5V6A		

1. Graph

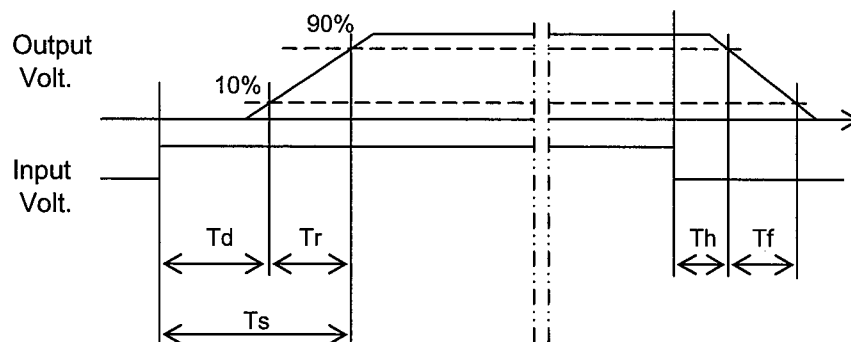
Input Volt. 48 V



2. Values

[ms]

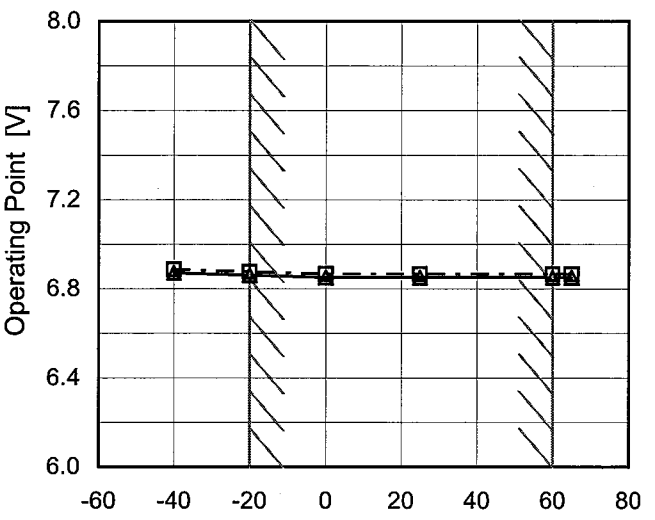
Load \ Time	Td	Tr	Ts	Th	Tf
50 %	1.3	1.6	2.9	0.2	0.5
100 %	1.5	2.8	4.3	0.1	0.3



COSEL

		Testing Circuitry Figure A																																						
Model	STMGFS304805																																							
Item	Minimum Input Voltage for Regulated Output Voltage																																							
Object	+5V6A																																							
1.Graph		2.Values																																						
<div><div><div>---□---</div><div>Load 50%</div></div><div><div>—△—</div><div>Load 100%</div></div></div> <table><thead><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="2">Input Voltage [V]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr></thead><tbody><tr><td>-40</td><td>15.8</td><td>15.9</td></tr><tr><td>-20</td><td>15.8</td><td>15.9</td></tr><tr><td>0</td><td>15.8</td><td>15.9</td></tr><tr><td>10</td><td>15.7</td><td>15.8</td></tr><tr><td>25</td><td>15.8</td><td>16.1</td></tr><tr><td>30</td><td>15.8</td><td>16.1</td></tr><tr><td>40</td><td>15.8</td><td>16.1</td></tr><tr><td>50</td><td>15.9</td><td>16.0</td></tr><tr><td>60</td><td>16.0</td><td>16.0</td></tr><tr><td>65</td><td>16.0</td><td>16.1</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></tbody></table> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		Ambient Temperature [°C]	Input Voltage [V]		Load 50%	Load 100%	-40	15.8	15.9	-20	15.8	15.9	0	15.8	15.9	10	15.7	15.8	25	15.8	16.1	30	15.8	16.1	40	15.8	16.1	50	15.9	16.0	60	16.0	16.0	65	16.0	16.1	--	-	-	
Ambient Temperature [°C]	Input Voltage [V]																																							
	Load 50%	Load 100%																																						
-40	15.8	15.9																																						
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50	15.9	16.0																																						
60	16.0	16.0																																						
65	16.0	16.1																																						
--	-	-																																						

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Model		STMGFS304805																																							
Item		Overvoltage Protection																																							
Object		+5V6A																																							
1.Graph		2.Values																																							
<div><div><div><div><div></div><div>△</div></div><div>Input Volt.</div><div>48V</div></div><div><div><div></div><div>□</div></div><div>Input Volt.</div><div>76V</div></div></div><div><p>Operating Point [V]</p><p>Ambient Temperature [°C]</p><p>Load 0%</p><p>Note: Slanted line shows the range of the rated ambient temperature.</p></div></div>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="2">Operating Point [V]</th></tr><tr><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>-40</td><td>6.87</td><td>6.89</td></tr><tr><td>-20</td><td>6.86</td><td>6.88</td></tr><tr><td>0</td><td>6.85</td><td>6.87</td></tr><tr><td>25</td><td>6.85</td><td>6.87</td></tr><tr><td>60</td><td>6.85</td><td>6.87</td></tr><tr><td>65</td><td>6.85</td><td>6.87</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Ambient Temperature [°C]	Operating Point [V]		Input Volt. 48[V]	Input Volt. 76[V]	-40	6.87	6.89	-20	6.86	6.88	0	6.85	6.87	25	6.85	6.87	60	6.85	6.87	65	6.85	6.87	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-
Ambient Temperature [°C]	Operating Point [V]																																								
	Input Volt. 48[V]	Input Volt. 76[V]																																							
-40	6.87	6.89																																							
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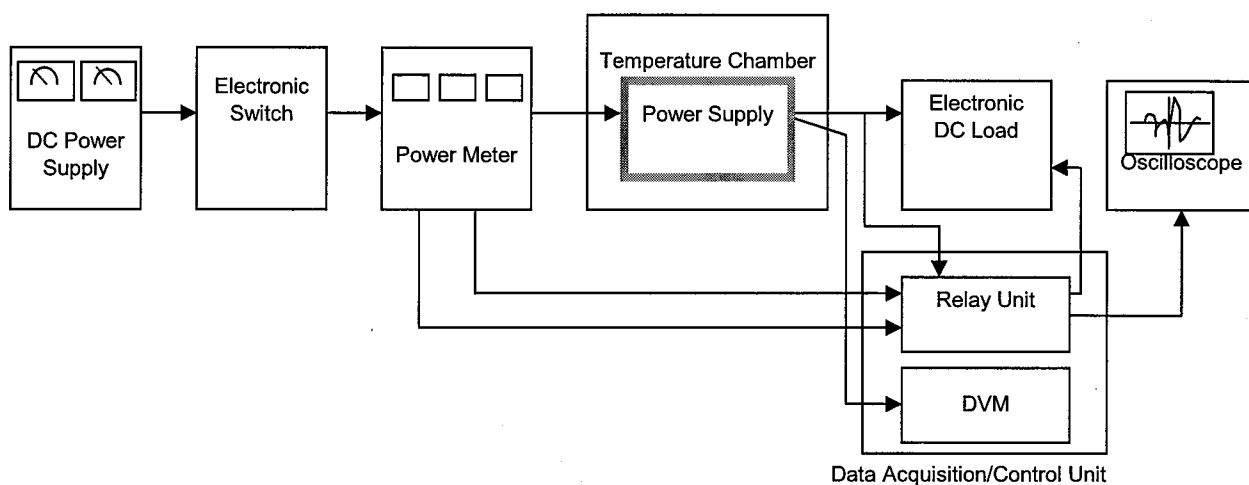


Figure A

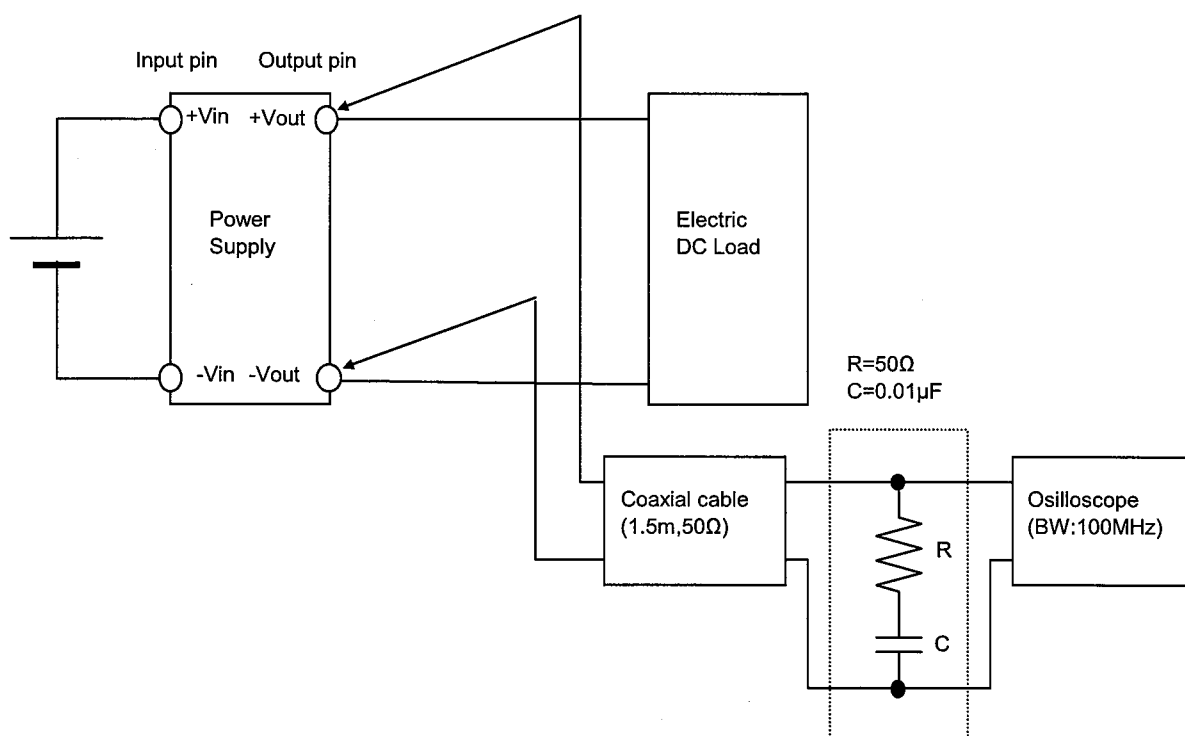


Figure B (Ripple and Ripple noise Characteristic)