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| **PWR\_BOOST\_5P0** | **VCC\_MPU alone** |
| **Power Test Report** | **Measurement Report** |

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| **System Configurations:** | |
| **Model Name** | Jaws |
| **Stage** | EV1B |
| **PCB Version** | 21H002-SD |

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| **Comments:** | **PASS** | | |
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| **Prepared by:** | **{{CL\_B5}}** | **Date:** | **{{CL\_B6}}** |
| **Approved by:** |  | **Date:** |  |

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| **1. Testing Configurations** |

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| **1.1 Testing Date:** | {{CL\_B7}} |

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| **1.2 Testing Place:** | {{CL\_B8}} |

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| **1.3 Testing Environment:** | **{{CL\_B9}}** |

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| **1.4 Testing Equipments** | | |
|  | ***Scope:*** | ***Tektronix TDS 744A 100MHz (4ch, 2Gs)***  ***Tektronix TDS 784D 1GHz (4ch., 4GS/s)***  ***Tektronix TDS 524A 100MHz (4ch., 100MS/s)***  ***Tektronix DPP 4104B 1GHz (4ch., 5GS/s)*** |
|  | ***Probe:*** | ***Signal Integrity Analysis:***  ***Agilent 10073D <15pF 1MΩ 100MHz 10X (Passive Probe)***  ***Tektronix P5050 <11.1pF 10MΩ 100MHz 10X (Passive Probe)***  ***Current Measurement:***  ***Tektronix TCP0030A ~120MHz, 30A Max DC(Current Probe)***  ***Tektronix A6302, AM503, TM502A ~50MHz, 20A Max DC, 50A peak pulse (Current Probe)***  ***Tektronix A6303, ~15MHz, 100A Max DC, 100A peak pulse (High Current Probe)*** |
|  | ***Power Supply*** | ***Agilent 66309D Dual output***  ***GOOD WILL GPC-3050D*** |
|  | ***Electronic Load*** | ***Chroma 63610 (80V/20A/1500W)***  ***PRODIGIT 3316 (50V/120A)*** |

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| **1.5 Testing Methodology/Procedure** | |
| **1.Output voltage regulation at normal temperature (static line, load regulation)** | **Measure the output voltages for any combinations of input voltages and load currents.** |
| **2.Output voltage ripple/noise** | **Measure output voltage ripple /noise for any**  **combinations of input voltages and load currents.** |
| **3.Load Transient** | **Measure the output voltages and currents at 0.1Imax~Imax 1KHz dynamic, duty = 1/2, skew rate=1.27A/us.** |
| **4.Output Voltage Rising Time** | **1. Input power at VIN ready.**  **2. Enable the power converter.**  **3. Measure signals input, enable and output by scope.** |
| **5.Efficiency** | **Measure the input voltage, input current and output voltage, output load to calculate power efficiency.** |

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| * 2. Measurement Results |

* **Vin = 3.6V~4.4V, Imin = 100 mA, Imax = 1500mA**

[**2.1 Regulation at normal temperature**](#A21)

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|  | | **Spec.(V)** | **Vrms[V]** | **Vmin[V]** | **Vmax[V]** | | **Comment** |
| **{{CL\_F4}}** | **{{CL\_G4}}** | **{{CL\_K4}}~{{CL\_H4}}** | **{{CL\_T4}}** | **{{CL\_S4}}** | **{{CL\_R4}}** | | {{CL\_V4}} |
| **{{CL\_F5}}** | **{{CL\_G5}}** | **{{CL\_K5}}~{{CL\_H5}}** | **{{CL\_T5}}** | **{{CL\_S5}}** | **{{CL\_R5}}** | | {{CL\_V5}} |
| **{{CL\_F6}}** | **{{CL\_G6}}** | **{{CL\_K6}}~{{CL\_H6}}** | **{{CL\_T6}}** | **{{CL\_S6}}** | **{{CL\_R6}}** | | {{CL\_V6}} |
| **{{CL\_F7}}** | **{{CL\_G7}}** | **{{CL\_K7}}~{{CL\_H7}}** | **{{CL\_T7}}** | **{{CL\_S7}}** | **{{CL\_R7}}** | | {{CL\_V7}} |
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| **2.2 Output Voltage Ripple/Noise** | | | | | | |
| Description | | **Spec. (mV)** | | **Measured(mV)** | | **Comment** | |
| **Ripple** | **R+N** | **Ripple** | **R+N** |
|  | | | | | | | |
| {{CL\_D4}} | Vin {{CL\_F4}}Vload current = Imax {{CL\_G4}}@-20℃ | **250** |  | **{{CL\_U4}}** |  |  | |
| {{CL\_D5}} | Vin {{CL\_F5}}Vload current = Imax{{CL\_G5}} @-20℃ | **250** |  | **{{CL\_U5}}** |  |  | |
| {{CL\_D6}} | Vin {{CL\_F6}}Vload current = Imax {{CL\_G6}} @-20℃ | **250** |  | **{{CL\_U6}}** |  |  | |
| {{CL\_D7}} | Vin {{CL\_F7}}Vload current = Imax{{CL\_G7}} @-20℃ | **250** |  | **{{CL\_U7}}** |  |  | |
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| **2.3 Load Transient**  **Imin = 100 mA, Imax = 1500mA, 1KHz dynamic, duty = 1/2, skew rate=0.25A/us** | | | | | | |
| Description | | **Spec. (V)** | | **Measured(V)** | **Comment** | **Imax** | |
| **Min.** | **Max.** |
| **-20℃** | | | | | | | |
| **{{CL\_X4}}** | Vin = {{CL\_Z4}} | **{{CL\_AE4}}** | **{{CL\_AB4}}** | **{{CL\_AH4}}~{{CL\_AI4}}** | {{CL\_AL4}} | **{{CL\_AA4}}** | |
| **{{CL\_X5}}** | Vin = {{CL\_Z5}} | **{{CL\_AE5}}** | **{{CL\_AB5}}** | **{{CL\_AH5}}~{{CL\_AI5}}** | {{CL\_AL5}} | **{{CL\_AA5}}** | |
| **25℃** | | | | | | | |
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| **50℃** | | | | | | | |
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| **2.4 Line Transient** | | | | | | |
| Description | | **Spec. (V)** | | **Measured(V)** | **Comment** | **Remark** | |
| **Min.** | **Max.** |
| **-20℃** | | | | | | | |
| [**{{CL\_AN4}}**](#B41) | **Vin {{CL\_AP4}}V~{{CL\_AQ4}}V**  **Imax {{CL\_AR4}}**  **Rise Edge** | **{{CL\_AV4}}** | **{{CL\_AS4}}** | **{{CL\_AY4}}~{{CL\_AZ4}}** | {{CL\_BC4}} |  | |
| [**{{CL\_AN5}}**](#B41) | **Vin {{CL\_AP5}}V~{{CL\_AQ5}}V**  **Imax {{CL\_AR5}}**  **Rise Edge** | **{{CL\_AV5}}** | **{{CL\_AS5}}** | **{{CL\_AY5}}~{{CL\_AZ5}}** | {{CL\_BC5}} |  | |
| [**{{CL\_AN6}}**](#B41) | **Vin {{CL\_AP6}}V~{{CL\_AQ6}}V**  **Imax {{CL\_AR6}}**  **Fall Edge** | **{{CL\_AV6}}** | **{{CL\_AS6}}** | **{{CL\_AY6}}~{{CL\_AZ6}}** | {{CL\_BC6}} |  | |
| [**{{CL\_AN7}}**](#B41) | **Vin {{CL\_AP7}}V~{{CL\_AQ7}}V**  **Imax {{CL\_AR7}}**  **Fall Edge** | **{{CL\_AV7}}** | **{{CL\_AS7}}** | **{{CL\_AY7}}~{{CL\_AZ7}}** | {{CL\_BC7}} |  | |
| **25℃** | | | | | | | |
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| **50℃** | | | | | | | |
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**2.5 Efficiency**

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| Description | **Input** | | **Output** | | **Power Efficiency** |
| **Voltage(V)** | **Current(A)** | **Voltage(V)** | **Current(A)** |
| **-20℃** | | | | | |
| Vin {{CL\_BG4}}V **load current = Imax {{CL\_BH4}}** | **{{CL\_BK4}}** | **{{CL\_BL4}}** | **{{CL\_BM4}}** | **{{CL\_BN4}}** | **{{CL\_BO4}}** |
| Vin {{CL\_BG5}}V **load current=Imin {{CL\_BH5}}** | **{{CL\_BK5}}** | **{{CL\_BL5}}** | **{{CL\_BM5}}** | **{{CL\_BN5}}** | **{{CL\_BO5}}** |
| Vin {{CL\_BG6}}V **load current = Imax {{CL\_BH6}}** | **{{CL\_BK6}}** | **{{CL\_BL6}}** | **{{CL\_BM6}}** | **{{CL\_BN6}}** | **{{CL\_BO6}}** |
| Vin {{CL\_BG7}}V **load current=Imin {{CL\_BH7}}** | **{{CL\_BK7}}** | **{{CL\_BL7}}** | **{{CL\_BM7}}** | **{{CL\_BN7}}** | **{{CL\_BO7}}** |
| **25℃** | | | | | |
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| **50℃** | | | | | |
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| **Waveform#**  **Fig. 2-1** | **Output Voltage Ripple**  tek01110 | **Measurement:** |

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| **Waveform#**  **Fig. 2-2** | **Output Voltage Ripple**  tek01113 | **Measurement:** |

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| **Waveform#**  **Fig. 2-3** | **Output Voltage Ripple**  tek01111 | **Measurement:** |

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| **Waveform#**  **Fig. 2-4** | **Output Voltage Ripple**  tek01112 | **Measurement:** |

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| **Waveform#**  **Fig. 2-5** | **Output Voltage Ripple**  tek01091 | **Measurement:** |

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| **Waveform#**  **Fig. 2-6** | **Output Voltage Ripple**  tek01092 | **Measurement:** |

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| **Waveform#**  **Fig. 2-7** | **Output Voltage Ripple**  tek01090 | **Measurement:** |

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| **Waveform#**  **Fig. 2-8** | **Output Voltage Ripple**  tek01093 | **Measurement:** |

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| **Waveform#**  **Fig. 2-9** | **Output Voltage Ripple**  tek01109 | **Measurement:** |

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| **Waveform#**  **Fig. 2-10** | **Output Voltage Ripple**  tek01106 | **Measurement:** |

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| **Waveform#**  **Fig. 2-11** | **Output Voltage Ripple**  tek01108 | **Measurement:** |

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| **Waveform#**  **Fig. 2-12** | **Output Voltage Ripple**  tek01107 | **Measurement:** |

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| **Waveform#**  **Fig. 3-1** | **Load Transient**  tek01114 | **Measurement:** |

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| **Waveform#**  **Fig. 3-2** | **Load Transient**  tek01115 | **Measurement:** |

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| **Waveform#**  **Fig. 3-3** | **Load Transient**  tek01095 | **Measurement:** |

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| **Waveform#**  **Fig. 3-4** | **Load Transient**  tek01094 | **Measurement:** |

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| **Waveform#**  **Fig. 3-5** | **Load Transient**  tek01105 | **Measurement:** |

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| **Waveform#**  **Fig. 3-6** | **Load Transient**  tek01104 | **Measurement:** |

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| **Waveform#**  **Fig. 4-1** | **Line Transient**  tek01119 | **Measurement:** |

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| **Waveform#**  **Fig. 4-2** | **Line Transient**  tek01117 | **Measurement:** |

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| **Waveform#**  **Fig. 4-3** | **Line Transient**  tek01118 | **Measurement:** |

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| **Waveform#**  **Fig. 4-4** | **Line Transient**  tek01116 | **Measurement:** |

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| **Waveform#**  **Fig. 4-5** | **Line Transient**  tek01097 | **Measurement:** |

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| **Waveform#**  **Fig. 4-6** | **Line Transient**  tek01099 | **Measurement:** |

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| **Waveform#**  **Fig. 4-7** | **Line Transient**  tek01096 | **Measurement:** |

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| **Waveform#**  **Fig. 4-8** | **Line Transient**  tek01098 | **Measurement:** |

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| **Waveform#**  **Fig. 4-9** | **Line Transient**  tek01101 | **Measurement:** |

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| **Waveform#**  **Fig. 4-10** | **Line Transient**  tek01103 | **Measurement:** |

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| **Waveform#**  **Fig. 4-11** | **Line Transient**  tek01100 | **Measurement:** |

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| **Waveform#**  **Fig. 4-12** | **Line Transient**  tek01102 | **Measurement:** |