**Breakdown Voltage Test, RBSP LVPS Flight Board**

Dates: 5/13/2010 – 5/14/2010

Equipment under test:

RBSP\_EFW\_LVPS\_003\_C

Equipment:

BERTAN High Voltage Power Supply Series 223

Manufacturer: Spellman High Voltage Electronics Corporation

Model #: 01R

Part #: 225-01R

Serial #: 72505-1-A01009

Test Results:

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| BEB +/-225V Test | | |
| Test voltage applied between: | Test potential applied | Breakdown / Arcing |
| Pin 8 and pin 4 of T2 (+225V to -225V) | 500 V | No |
| Pin 8 and pin 6 of T2 (+225V to GNDA) | 250 V | No |
| Pin 4 and pin 6 of T2 (-225V to GNDA) | 250 V | No |
| Note:  The following component pads were shorted with wire: D31, D53, R78, R82, R111, R122, L1 (Pins 4-7), L1 (Pins 5-6). Test repeated with D31, D53 shorts removed and D34, D49 shorts added. | | |

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| FV1GND, FV2GND, FV3GND, FV4GND, FV5GND, FV6GND Test | | |
| Test voltage applied between: | Test potential applied | Breakdown / Arcing |
| Pin 4 of T12 and pin 4 of T15 (FV1GND to FV2GND) | 500 V | No |
| Pin 4 of T15 and pin 4 of T7 (FV2GND to FV3GND) | 500 V | No |
| Pin 4 of T7 and pin 4 of T10 (FV3GND to FV4GND) | 500 V | No |
| Pin 4 of T10 and pin 4 of T11 (FV4GND to FV5GND) | 500 V | No |
| Pin 4 of T11 and pin 4 of T14 (FV5GND to FV6GND) | 500 V | No |
| Note:  The following component pads were shorted with wire: D85, D94, D101, D111, D55, D63, D66, D73, D83, D92, D97, D110, L17 (Pins 1-4, 2-3), L22 (Pins 1-4, 2-3), L12 (Pins 1-4, 2-3), L14 (Pins 1-4, 2-3), L16 (Pins 1-4, 2-3), L21 (Pins 1-4, 2-3), L6 (Pins 1-6, 2-5, 3-4), L9 (Pins 1-6, 2-5, 3-4), L10 (Pins 1-6, 2-5, 3-4), L15 (Pins 1-6, 2-5, 3-4), L19 (Pins 1-6, 2-5, 3-4), L20 (Pins 1-6, 2-5, 3-4). Test repeated with D85, D94, D101, D111, D55, D63, D66, D73, D83, D92, D97, D110 shorts removed and D88, D96, D105, D113, D59, D64, D70, D75, D86, D95, D103, D112 shorts added. | | |