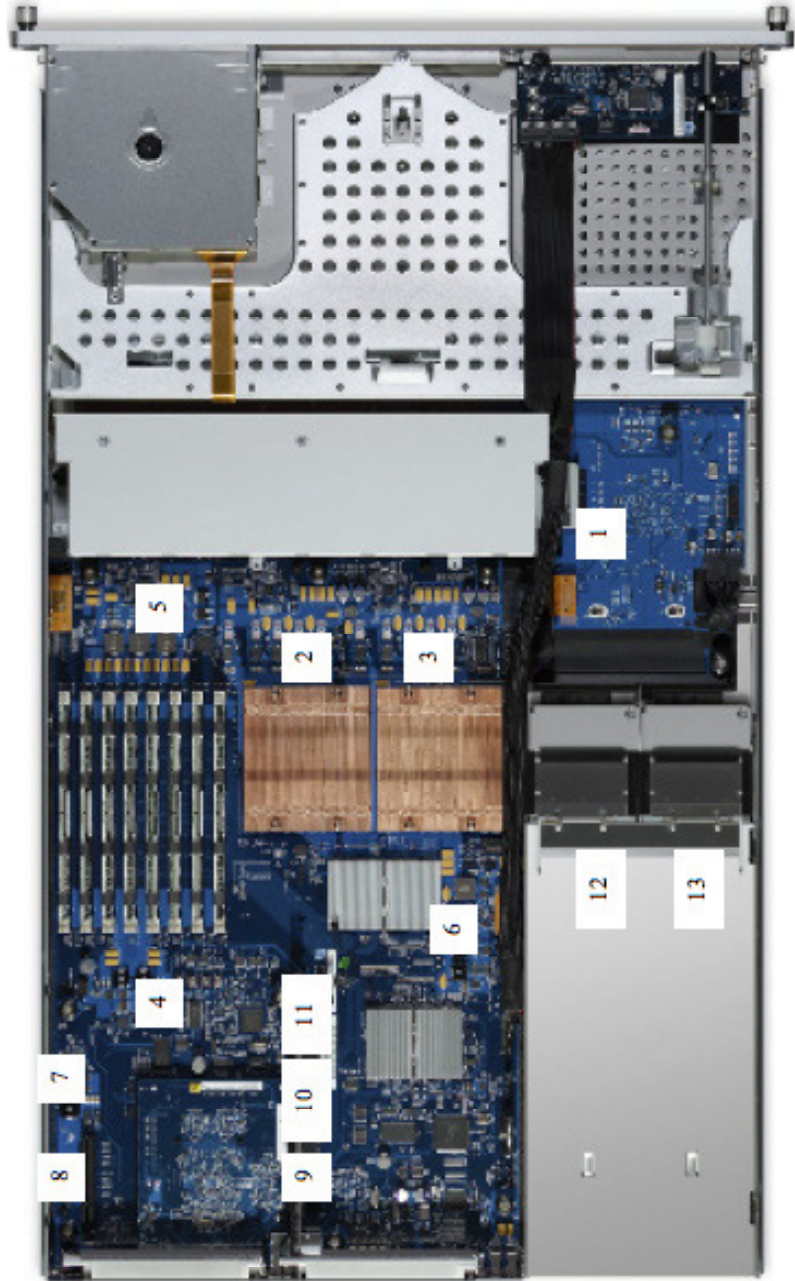




Reference for Internal Sensors

Xserve (Late 2006) Internal Sensor Reference

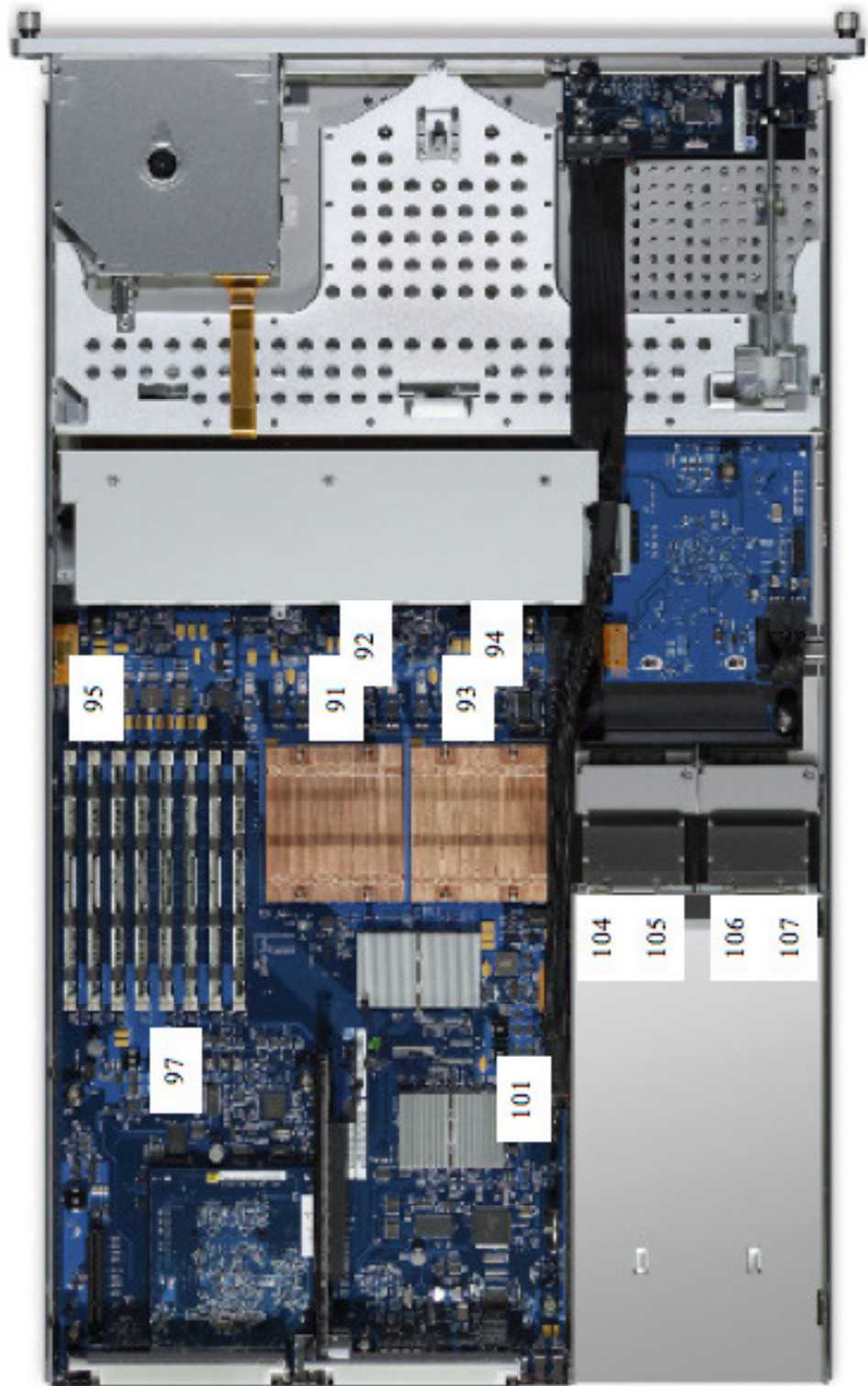
DC CURRENT SENSOR LOCATIONS



DC CURRENT SENSORS (MEASURED IN AMPS)

LOCATION	SENSOR DESCRIPTION	MIN	MAX
1	Backplane, Total Current for 12V, which includes the 5V and 3.3V Regulators	0.00	8.25
2	CPU A, Core Low Side (Vcore) Current	0.00	120.00
3	CPU B, Core Low Side (Vcore) Current	0.00	120.00
4	FBDIMM, P1V5 High Side (12V) Current	0.00	6.60
5	FBDIMM, P1V8 High Side (12V) Current	0.00	11.00
6	MCH and ESB2, Core High Side (12V) Current	0.00	6.60
7	PCI Slot 2, 12V Current	0.00	3.30
8	PCI Slot 2, 3.3V Current	0.00	11.00
9	PCI Slot 1, 12V Current	0.00	3.30
10	PCI Slot 1, 3.3V Current	0.00	11.00
11	PCI Slot 1, 5V Current	0.00	6.60
12	PSU 1, 12V Current (PSMI)	0.00	60.00
13	PSU 2, 12V Current (PSMI)	0.00	60.00

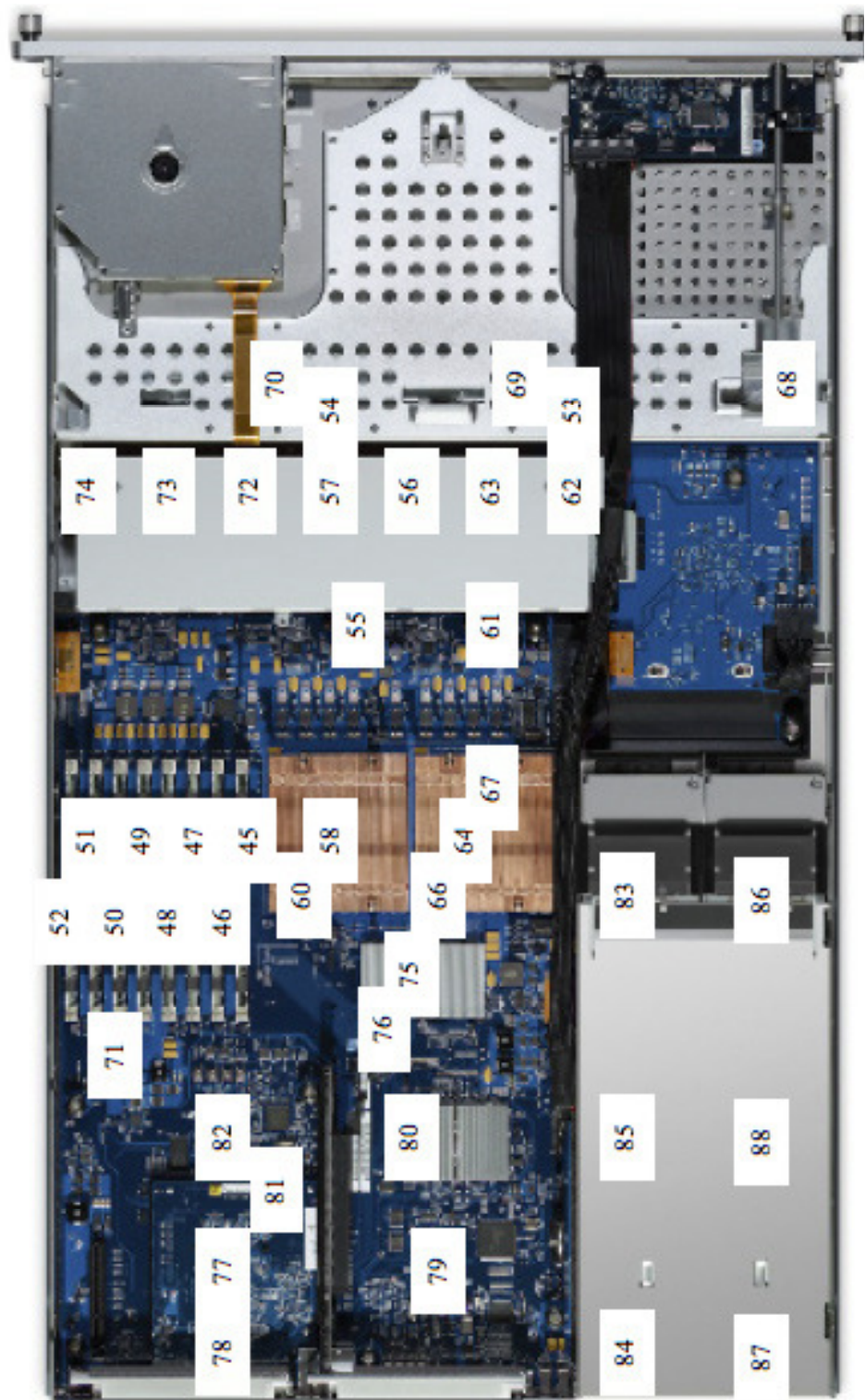
VOLTAGE SENSOR LOCATIONS



VOLTAGE SENSORS (MEASURED IN VOLTS DC)

LOCATION	SENSOR DESCRIPTION	MIN	NOMINAL	MAX
89	System, 1.5V AUX Voltage	1.43	1.50	1.58
90	System, 3.3V AUX Voltage	3.14	3.30	3.47
91	CPU A, Core Voltage	1.08	1.20	1.50
92	CPU A, VRM 12V Input Voltage	11.40	12.00	12.60
93	CPU B, Core Voltage	1.08	1.20	1.50
94	CPU B, VRM 12V Input Voltage	11.40	12.00	12.60
95	FBDIMM, 0.9V VTT Voltage	0.86	0.90	0.95
96	FBDIMM, Regulator 12V Input Voltage	11.40	12.00	12.60
97	FBDIMM, 1.8V Voltage	1.71	1.80	1.89
98	Firewire, 1.95V DVDD voltage	1.85	1.95	2.15
99	System, Main 12V Voltage	11.40	12.00	12.60
100	System, Main 3.3V Voltage	3.14	3.30	3.47
101	MCH and ESB2, 1.5V Core Voltage	1.43	1.50	1.58
102	NIC, 1.2V Voltage	1.14	1.20	1.26
103	NIC, 1.8V Voltage	1.71	1.80	1.89
104	PSU 1, 12V Voltage	11.40	12.00	12.60
105	PSU 1, 5V Voltage	4.75	5.00	5.25
106	PSU 2, 12V Voltage	11.40	12.00	12.60
107	PSU 2, 5V Voltage	4.75	5.00	5.25
108	System, PV_VTT Voltage	1.14	1.20	1.26
109	System, 5V StandBy Voltage	4.75	5.00	5.25

TEMPERATURE SENSOR LOCATIONS

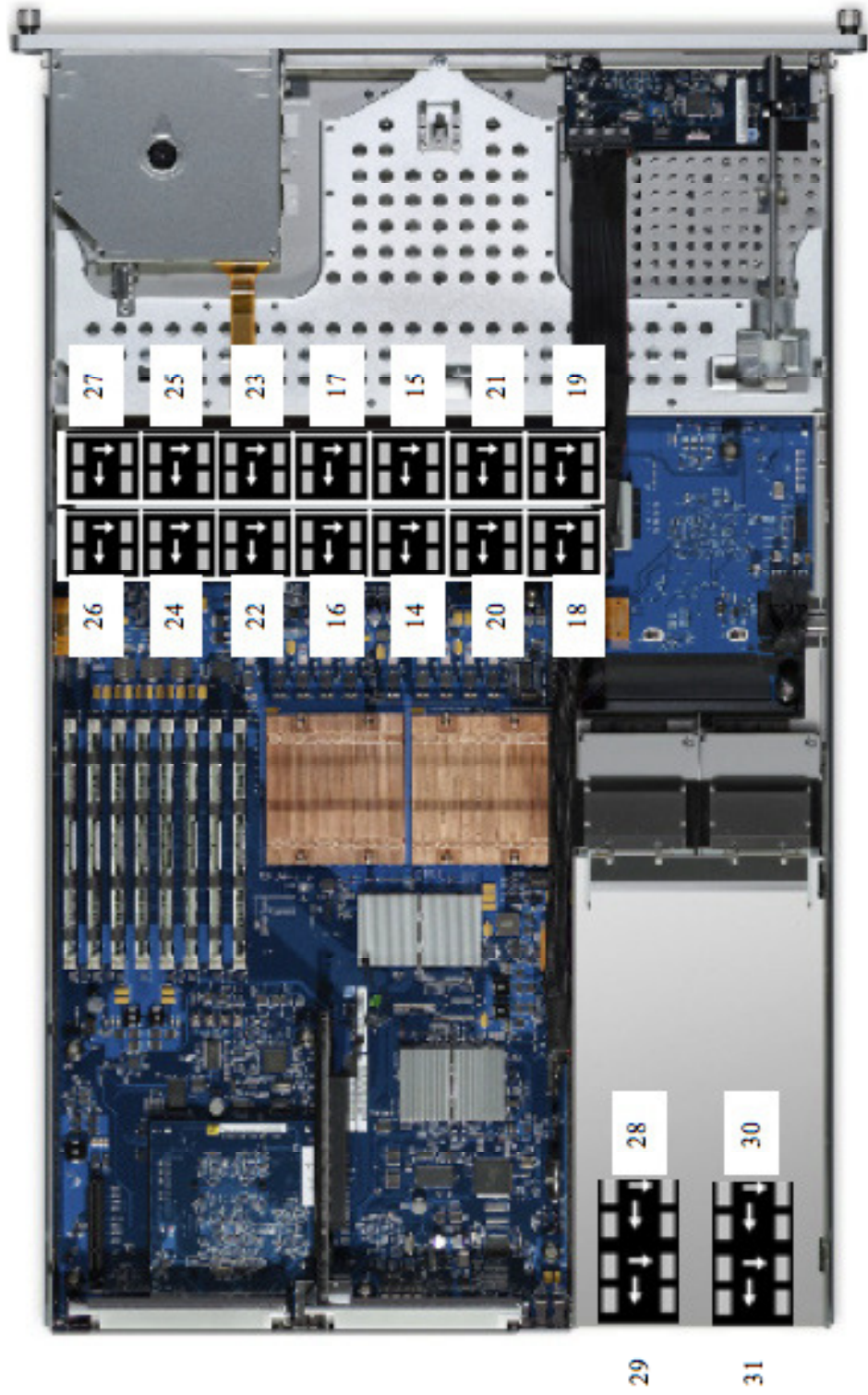


TEMPERATURE SENSORS (MEASURED IN DEGREES CELSIUS)

LOCATION	SENSOR DESCRIPTION	MIN	NOMINAL	MAX
45	FBDJMM, Slot 1	5.00	85	90.00
47	FBDJMM, Slot 2	5.00	85	90.00
49	FBDJMM, Slot 3	5.00	85	90.00
51	FBDJMM, Slot 4	5.00	85	90.00
46	FBDJMM, Slot 5	5.00	85	90.00
48	FBDJMM, Slot 6	5.00	85	90.00
50	FBDJMM, Slot 7	5.00	85	90.00
52	FBDJMM, Slot 8	5.00	85	90.00
53	System, Ambient Temperature (Left Chunnel)	5.00		40.00
54	System, Ambient Temperature (Right Chunnel)	5.00		40.00
55	CPU A, Ambient Temperature (On the MLB, Fan Exhaust)	5.00		45.00
56	CPU A, Ambient Temperature 1 (On the Fan Board)	5.00		70.00
57	CPU A, Ambient Temperature 2 (On the Fan Board)	5.00		70.00
58	CPU A, Core 0 Relative Temperature to Prochot (PECI)	0.00		60.00
59	CPU A, Core 1 Relative Temperature to Prochot (PECI)	0.00		60.00
60	CPU A, HeatSink Temperature	5.00	55	75.00
61	CPU B, Ambient Temperature (On the MLB, Fan Exhaust)	5.00		45.00
62	CPU B, Ambient Temperature 1 (On the Fan Board)	5.00		70.00
63	CPU B, Ambient Temperature 2 (On the Fan Board)	5.00		70.00
64	CPU B, Core 0 Relative Temperature to Prochot (PECI)	0.00		60.00
65	CPU B, Core 1 Relative Temperature to Prochot (PECI)	0.00		60.00
66	CPU B, HeatSink Temperature	5.00	55	75.00
67	CPU B, PCB Temperature (Between CPU B and its VR)	5.00		85.00
68	Drive Bay 1, HDD Temperature (On Drive Carrier)	5.00	SAS:48, SATA:59	60.00
69	Drive Bay 2, HDD Temperature (On Drive Carrier)	5.00	SAS:53, SATA:57	60.00
70	Drive Bay 3, HDD Temperature (On Drive Carrier)	5.00	SAS:54, SATA:58	60.00
71	FBDJMM, Slot 4 Exit Ambient Temperature	5.00		65.00
72	FBDJMM, Ambient Temperature 1 (On the Fan Board)	5.00		70.00
73	FBDJMM, Ambient Temperature 2 (On the Fan Board)	5.00		70.00
74	FBDJMM, Ambient Temperature 3 (On the Fan Board)	5.00		70.00
75	MCH, Core Temperature	5.00		128.00
76	MCH, HeatSink Temperature	5.00	80	95.00

77	Mezzanine GPU, Core Temperature	5.00		100.00
78	Mezzanine GPU, Exhaust Temperature	5.00		65.00
79	PCI Slot 1, Ambient Temperature	5.00	47	65.00
80	PCI Slot 1, PCB Temperature (On the MLB)	5.00		65.00
81	PCI Slot 2 Ambient Temperature	5.00	47	65.00
82	PCI Slot 2 PCB Temperature (On the MLB)	5.00		65.00
83	PSU 1, Inlet Ambient Temperature	5.00	50	60.00
84	PSU 1, Primary Component Temperature	5.00	72	110.00
85	PSU 1, Secondary Component Temperature	5.00	70	90.00
86	PSU 2, Inlet Ambient Temperature	5.00	50	60.00
87	PSU 2, Primary Component Temperature	5.00	72	110.00
88	PSU 2, Secondary Component Temperature	5.00	70	90.00

FAN SPEED SENSOR LOCATIONS



FAN SPEED SENSORS (MEASURED IN RPM)

LOCATION	SENSOR DESCRIPTION	MIN	MAX
14	CPU A, Fan Speed (RPM) 1 Exhaust	2994 ±5%	10000 ±5%
15	CPU A, Fan Speed (RPM) 1 Intake	5000 ±5%	16700 ±5%
16	CPU A, Fan Speed (RPM) 2 Exhaust	2994 ±5%	10000 ±5%
17	CPU A, Fan Speed (RPM) 2 Intake	5000 ±5%	16700 ±5%
18	CPU B, Fan Speed (RPM) 1 Exhaust	2994 ±5%	10000 ±5%
19	CPU B, Fan Speed (RPM) 1 Intake	5000 ±5%	16700 ±5%
20	CPU B, Fan Speed (RPM) 2 Exhaust	2994 ±5%	10000 ±5%
21	CPU B, Fan Speed (RPM) 2 Intake	5000 ±5%	16700 ±5%
22	FBDIMM, Fan Speed (RPM) 1 Exhaust	2994 ±5%	10000 ±5%
23	FBDIMM, Fan Speed (RPM) 1 Intake	5000 ±5%	16700 ±5%
24	FBDIMM, Fan Speed (RPM) 2 Exhaust	2994 ±5%	10000 ±5%
25	FBDIMM, Fan Speed (RPM) 2 Intake	5000 ±5%	16700 ±5%
26	FBDIMM, Fan Speed (RPM) 3 Exhaust	2994 ±5%	10000 ±5%
27	FBDIMM, Fan Speed (RPM) 3 Intake	5000 ±5%	16700 ±5%
28	PSU 1, Fan Speed (RPM) 2, Inlet	7287 ±15%	13900 ±10%
29	PSU 1, Fan Speed (RPM) 1, Outlet	6800 ±15%	12800 ±10%
30	PSU 2, Fan Speed (RPM) 2, Inlet	7287 ±15%	13900 ±10%
31	PSU 2, Fan Speed (RPM) 1, Outlet	6800 ±15%	12800 ±10%