EPTEV02DEV01 Main Board S/N: A2430785

17/07/2024 12:48:48

17/07/2024 12:28:10 Mockup Main Board Checking (4 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Reference Voltage - Microcontroller	4090	4008	4172	PASS
AT MPP Manual Measurement	4098	4008	4172	PASS
Reference Voltage – Multiplexer 1	4090	4008	4172	PASS
Reference Voltage – Multiplexer 2	4090	4008	4172	PASS
Comms	OK	-	-	PASS

Initial equipment consumption check (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Current – Low side	243	0	521	PASS

Main microcontroller programming with PGM TEST (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Main microcontroller programming with PGM TEST	-	-	-	PASS

Program external EEPROM memory (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Programmed Memory	-	-	-	PASS

Sauron internal reference voltage calibration (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Sauron internal reference voltage calibration	-	-	-	PASS

Checking the 3V DCDC of the DUT board (2 tests).

Test Description	Reading	Lower Range	Upper Range	Result
3V – No load	3000	2687	3329	PASS
3V – Load	2996	2682	3325	PASS

Checking the 5V DCDC of the DUT board (31 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Enable DCDC 5V – No load	3145	2829	3483	PASS
Enable DCDC 5V – Load	3140	2819	3475	PASS
Vbat: 2900mV - 5V – No load	5089	4424	5602	PASS
Vbat: 2900mV - 5V – Load	5056	4394	5567	PASS
Vbat: 3000mV - 5V – No load	5090	4424	5601	PASS
Vbat: 3000mV - 5V – Load	5056	4394	5567	PASS
Vbat: 3100mV - 5V – No load	5090	4424	5601	PASS
Vbat: 3100mV - 5V – Load	5056	4395	5567	PASS
Vbat: 3200mV - 5V – No load	5090	4424	5602	PASS
Vbat: 3200mV - 5V – Load	5055	4395	5567	PASS
Vbat: 3300mV - 5V – No load	5090	4424	5602	PASS
Vbat: 3300mV - 5V – Load	5055	4394	5567	PASS
Vbat: 3400mV - 5V – No load	5089	4425	5602	PASS
Vbat: 3400mV - 5V – Load	5055	4394	5567	PASS
Vbat: 3500mV - 5V – No load	5089	4424	5602	PASS
Vbat: 3500mV - 5V – Load	5055	4394	5565	PASS
Vbat: 2900mV - 5V SW – No load	5092	4426	5605	PASS
Vbat: 2900mV - 5V SW – Load	5056	4397	5568	PASS
Vbat: 3000mV - 5V SW – No load	5090	4426	5605	PASS
Vbat: 3000mV - 5V SW – Load	5055	4397	5568	PASS
Vbat: 3100mV - 5V SW – No load	5090	4426	5606	PASS
Vbat: 3100mV - 5V SW – Load	5055	4397	5568	PASS
Vbat: 3200mV - 5V SW – No load	5090	4428	5608	PASS
Vbat: 3200mV - 5V SW – Load	5055	4397	5568	PASS
Vbat: 3300mV - 5V SW – No load	5092	4426	5608	PASS
Vbat: 3300mV - 5V SW – Load	5053	4397	5568	PASS
Vbat: 3400mV - 5V SW – No load	5092	4426	5606	PASS
Vbat: 3400mV - 5V SW – Load	5053	4397	5568	PASS
Vbat: 3500mV - 5V SW – No load	5092	4426	5606	PASS
Vbat: 3500mV - 5V SW – Load	5055	4397	5567	PASS

5V DUT	5078	4423	5575	PASS

Checking the 12V DCDC of the DUT board (35 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Enable DCDC 12V – No load	3114	2825	3478	PASS
Enable DCDC 12V – Load	2757	2407	3120	PASS
Vbat: 2800mV – 12V – POK Disabled	12222	10900	13481	PASS
Vbat: 2800mV – 12V POK – POK Disabled	3389	0	5000	PASS
Vbat: 2800mV – 12V – POK Enabled	2469	1571	8944	PASS
Vbat: 2800mV – 12V POK – POK Enabled	4586	3973	5048	PASS
Vbat: 2900mV - 12V – No load	12232	10900	13488	PASS
Vbat: 2900mV - 12V POK – No load	2120	0	5000	PASS
Vbat: 2900mV - 12V – Load	12185	10852	13437	PASS
Vbat: 2900mV - 12V POK – Load	3900	0	5000	PASS
Vbat: 3000mV - 12V – No load	12242	10913	13499	PASS
Vbat: 3000mV - 12V POK – No load	349	0	5000	PASS
Vbat: 3000mV - 12V – Load	12195	10867	13448	PASS
Vbat: 3000mV - 12V POK – Load	2984	0	5000	PASS
Vbat: 3100mV - 12V – No load	12249	10918	13510	PASS
Vbat: 3100mV - 12V POK – No load	52	0	5000	PASS
Vbat: 3100mV - 12V – Load	12205	10877	13459	PASS
Vbat: 3100mV - 12V POK – Load	1264	0	5000	PASS
Vbat: 3200mV - 12V – No load	12255	10924	13518	PASS
Vbat: 3200mV - 12V POK – No load	31	0	5000	PASS
Vbat: 3200mV - 12V – Load	12215	10882	13470	PASS
Vbat: 3200mV - 12V POK – Load	98	0	5000	PASS
Vbat: 3300mV - 12V – No load	12265	10933	13529	PASS
Vbat: 3300mV - 12V POK – No load	24	0	5000	PASS
Vbat: 3300mV - 12V – Load	12219	10888	13481	PASS
Vbat: 3300mV - 12V POK – Load	56	0	5000	PASS
Vbat: 3400mV - 12V – No load	12272	10940	13537	PASS
Vbat: 3400mV - 12V POK – No load	20	0	5000	PASS
Vbat: 3400mV - 12V – Load	12225	10895	13488	PASS
Vbat: 3400mV - 12V POK – Load	45	0	5000	PASS
Vbat: 3500mV - 12V – No load	12286	10946	13548	PASS
Vbat: 3500mV - 12V POK – No load	19	0	5000	PASS
Vbat: 3500mV - 12V – Load	12235	10900	13499	PASS
Vbat: 3500mV - 12V POK – Load	39	0	1000	PASS
12V Relay	12219	10886	13474	PASS

Checking the 40V DCDC of the DUT board (38 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Enable DCDC 40V – No load	3117	2822	3478	PASS
Enable DCDC 40V – Load	2744	2387	3113	PASS
Vbat: 2800mV – 40V – POK Disabled	40212	36212	44908	PASS
Vbat: 2800mV – 40V POK – POK Disabled	3872	0	4980	PASS
Vbat: 2800mV – 40V – POK Enabled	30451	26579	36093	PASS
Vbat: 2800mV – 40V POK – POK Enabled	4587	3981	5041	PASS
Vbat: 2900mV - 40V – No load	40258	36242	44945	PASS
Vbat: 2900mV - 40V POK – No load	3034	0	4500	PASS
Vbat: 2900mV - 40V – Load	33368	29777	39277	PASS
Vbat: 2900mV - 40V POK – Load	4589	3983	5041	PASS
Vbat: 3000mV - 40V – No load	40280	36273	44970	PASS
Vbat: 3000mV - 40V POK – No load	1528	0	3500	PASS
Vbat: 3000mV - 40V – Load	35071	31360	41150	PASS
Vbat: 3000mV - 40V POK – Load	4591	0	5045	PASS
Vbat: 3100mV - 40V – No load	40326	36283	44996	PASS
Vbat: 3100mV - 40V POK – No load	107	0	2900	PASS
Vbat: 3100mV - 40V – Load	36671	32882	42973	PASS
Vbat: 3100mV - 40V POK – Load	2995	0	4900	PASS
Vbat: 3200mV - 40V – No load	40360	36314	45033	PASS
Vbat: 3200mV - 40V POK – No load	39	0	500	PASS
Vbat: 3200mV - 40V – Load	38181	34241	44558	PASS
Vbat: 3200mV - 40V POK – Load	1657	0	3600	PASS
Vbat: 3300mV - 40V – No load	40383	36324	45057	PASS
Vbat: 3300mV - 40V POK – No load	26	0	250	PASS

Vbat: 3300mV - 40V – Load	39702	35619	44895	PASS
Vbat: 3300mV - 40V POK – Load	202	0	3000	PASS
Vbat: 3400mV - 40V – No load	40417	36355	45082	PASS
Vbat: 3400mV - 40V POK – No load	21	0	1000	PASS
Vbat: 3400mV - 40V – Load	40292	36242	44933	PASS
Vbat: 3400mV - 40V POK – Load	80	0	1000	PASS
Vbat: 3500mV - 40V – No load	40439	36365	45108	PASS
Vbat: 3500mV - 40V POK – No load	20	0	250	PASS
Vbat: 3500mV - 40V – Load	40326	36273	44958	PASS
Vbat: 3500mV - 40V POK – Load	62	0	250	PASS
WDT HW with pulses – 40V	40360	36303	45033	PASS
WDT HW with pulses – Pulses	2982	2701	3329	PASS
WDT HW without pulses – 40V	2985	2970	15219	PASS
WDT HW without pulses – Pulses	12	0	250	PASS

Checking the charging circuit of the DUT board (11 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Input Voltage – TVS Off	16	0	250	PASS
Input Voltage – TVS Off 5V	4204	3160	5000	PASS
Input Voltage – TVS On 12V	6901	5970	12100	PASS
Charge Time	14243	9912	45000	PASS
Battery Voltage – TP9	3562	3199	3929	PASS
Charge detection – TP93	15	0	250	PASS
Charge status – TP94	34	0	250	PASS
Battery Voltage	3203	2881	3524	PASS
Charge Voltage - TP117	5018	4201	5702	PASS
Charge status – TP94	1217	731	1800	PASS
V Battery - ADC DUT	3305	3020	3713	PASS

Screen illumination check (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Screen illumination check	-	-	-	PASS

Screen contrast check (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Screen contrast check	-	-	-	PASS

Screen pixels check (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Screen pixels check	-	-	-	PASS

External EEPROM memory check (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
External EEPROM memory check	-	-	-	PASS

Checking the LEDs (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Checking the LEDs	-	-	-	PASS

Buzzer check (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Buzzer check	-	-	-	PASS

Push button check (6 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Pushbutton - Menu 1	-	-	-	PASS
Pushbutton - Menu 3	-	-	-	PASS
Pushbutton - Menu 4	-	-	-	PASS
Pushbutton - On/Off	-	-	-	PASS
Pushbutton – Start/Stop	-	-	-	PASS

Dial check (2 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Right Turn	-	-	-	PASS
Left Turn	-	-	-	PASS

Accelerometer – X Axis (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Accelerometer – X Axis	16352	14557	18021	PASS

Secondary microcontroller programming with PGM TEST (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Secondary microcontroller programming with PGM TEST	-	-	-	PASS

Checking communications between Sauron and Orco (1 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Checking communications between Sauron and Orco.	-	-	-	PASS

Checking channel A (58 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Step 1 TP100 - 12V CHA	12219	10877	13466	PASS
Step 1 TP102 - 40V CHA	38124	31625	44433	PASS
Step 2 TP101 - DC+ CHA	53	0	65	PASS
Step 3 TP105 - DC- CHA	53	0	65	PASS
Step 4 TP101 - DC+ CHA	1176	1000	1284	PASS
Step 4 TP105 - DC- CHA	35	0	50	PASS
Step 5 TP101 - DC+ CHA	5624	4857	6186	PASS
Step 5 TP105 - DC- CHA	35	0	50	PASS
Step 6 TP101 - DC+ CHA	10071	8715	11088	PASS
Step 6 TP105 - DC- CHA	38	0	50	PASS
Step 7 TP101 - DC+ CHA	32	0	50	PASS
Step 7 TP105 - DC- CHA	1176	1013	1290	PASS
Step 8 TP101 - DC+ CHA	32	0	50	PASS
Step 8 TP105 - DC- CHA	5612	4857	6163	PASS
Step 9 TP101 - DC+ CHA	35	0	50	PASS
Step 9 TP105 - DC- CHA	10047	8709	11042	PASS
Step 10 Shunt	665	536	732	PASS
Step 10 TP103 - Load +	40122	36049	44710	PASS
Step 10 TP4 - Relay Out +	107	84	132	PASS
Step 11 Shunt	739	549	813	PASS
Step 11 TP4 - Relay Out +	40108	38103	44725	PASS
Step 12 Shunt	669	533	732	PASS
Step 12 TP104 - Load -	40242	36170	44887	PASS
Step 12 TP3 - Relay Out -	93	60	200	PASS
Step 13 Shunt	743	553	817	PASS
Step 13 TP3 - Relay Out -	39934	38103	44518	PASS
Step 14 TP103 - Load +	69	32	95	PASS
Step 14 Shunt	989	788	1112	PASS
Step 14 TP100 - 12V CHA	12235	10900	13492	PASS
Step 14 TP102 - 40V CHA	40201	36130	44821	PASS
Step 15 TP103 - Load +	131	82	175	PASS
Step 15 Shunt	8685	7499	9715	PASS
Step 15 TP100 - 12V CHA	12245	10904	13499	PASS
Step 15 TP102 - 40V CHA	40099	35721	44708	PASS
Step 16 TP103 - Load +	168	112	200	PASS
Step 16 Shunt	14438	12554	16141	PASS
Step 16 TP100 - 12V CHA	12252	10906	13504	PASS
Step 16 TP102 - 40V CHA	38124	31952	44634	PASS
Step 17 TP104 - Load -	69	32	80	PASS
Step 17 Shunt	1000	788	1096	PASS
Step 17 TP100 - 12V CHA	12235	10900	13488	PASS
Step 17 TP102 - 40V CHA	40212	36130	44807	PASS
Step 18 TP104 - Load -	131	82	175	PASS
Step 18 Shunt	8722	7499	9610	PASS
Step 18 TP100 - 12V CHA	12245	10904	13499	PASS
Step 18 TP102 - 40V CHA	40099	35701	44708	PASS
Step 19 TP104 - Load -	167	112	200	PASS

Step 19 Shunt	14490	12558	15975	PASS
Step 19 TP100 - 12V CHA	12252	10906	13507	PASS
Step 19 TP102 - 40V CHA	38045	31870	44571	PASS
Step 20 ADC DUT	1013	839	5501	PASS
Step 20 TP32 - V+ Load ADC	1062	869	5497	PASS
Step 21 ADC DUT	863	714	4069	PASS
Step 21 TP32 - V+ Load ADC	870	718	4060	PASS
Step 22 ADC DUT	1021	849	5501	PASS
Step 22 TP32 - V- Load ADC	1070	875	5497	PASS
Step 23 ADC DUT	874	723	4060	PASS
Step 23 TP32 - V- Load ADC	881	728	4072	PASS

Checking channel B (110 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Step 1 TP106 - 12V CHB	12225	10879	13474	PASS
Step 1 TP108 - 40V CHB	39032	32738	44908	PASS
Step 2 TP107 - DC+ CHB	44	0	60	PASS
Step 3 TP116 - DC- CHB	47	0	60	PASS
Step 4 TP107 - DC+ CHB	1167	1000	1277	PASS
Step 4 TP116 - DC- CHB	29	0	50	PASS
Step 5 TP107 - DC+ CHB	5609	4852	6173	PASS
Step 5 TP116 - DC- CHB	29	0	50	PASS
Step 6 TP107 - DC+ CHB	10050	8707	11068	PASS
Step 6 TP116 - DC- CHB	32	0	50	PASS
Step 7 TP107 - DC+ CHB	26	0	50	PASS
Step 7 TP116 - DC- CHB	1173	1011	1287	PASS
Step 8 TP107 - DC+ CHB	29	0	50	PASS
Step 8 TP116 - DC- CHB	5624	4863	6177	PASS
Step 9 TP107 - DC+ CHB	29	0	50	PASS
Step 9 TP116 - DC- CHB	10074	8717	11065	PASS
Step 10 Shunt	709	576	801	PASS
Step 10 TP109 - Load +	39920	35879	44503	PASS
Step 10 TP110 - Load -	93	60	175	PASS
Step 11 Shunt	709	576	801	PASS
Step 11 TP109 - Load +	39907	35879	44503	PASS
Step 11 TP110 - Load -	93	60	175	PASS
Step 11 TP6 - Relay ES +	80	60	102	PASS
Step 12 Shunt	706	576	780	PASS
Step 12 TP109 - Load +	93	60	118	PASS
Step 12 TP110 - Load -	39799	35783	44385	PASS
Step 13 Shunt	709	572	801	PASS
Step 13 TP109 - Load +	93	60	118	PASS
Step 13 TP110 - Load -	39799	35783	44385	PASS
Step 13 TP5 - Relay ES -	93	60	118	PASS
Step 14 Shunt	709	576	796	PASS
Step 14 TP6 - Relay ES +	80	60	118	PASS
Step 15 Shunt	779	642	861	PASS
Step 15 TP6 - Relay ES +	39799	35783	44385	PASS
Step 16 Shunt	709	576	801	PASS
Step 16 TP5 - Relay ES -	93	60	118	PASS
Step 17 Shunt	783	642	861	PASS
Step 17 TP5 - Relay ES -	39853	35819	44429	PASS
Step 18 Shunt	706	576	793	PASS
Step 18 TP8 - Relay GALV +	80	60	102	PASS
Step 19 Shunt	779	616	866	PASS
Step 19 TP8 - Relay GALV +	40014	35964	44622	PASS
Step 20 Shunt	709	576	780	PASS
Step 20 TP9 - Relay GALV -	93	60	132	PASS
Step 21 Shunt	779	590	866	PASS
Step 21 TP9 - Relay GALV -	39853	35819	44429	PASS
Step 22 TP109 - Load +	120	72	175	PASS
Step 22 Shunt	1224	1013	1372	PASS
Step 22 TP106 - 12V CHB	12245	10906	13496	PASS
Step 22 TP108 - 40V CHB	40439	36345	45070	PASS
Step 23 TP109 - Load +	174	121	250	PASS
Step 23 Shunt	8825	7592	9711	PASS
Step 23 TP106 - 12V CHB	12255	10913	13504	PASS

Step 23 TP108 - 40V CHB	40326	36273	44970	PASS
Step 24 TP109 - Load +	214	157	300	PASS
Step 24 Shunt	14549	12578	16031	PASS
Step 24 TP106 - 12V CHB	12262	10915	13515	PASS
Step 24 TP108 - 40V CHB	39202	33219	44933	PASS
Step 25 TP110 - Load -	107	72	175	PASS
Step 25 Shunt	1224	1016	1363	PASS
Step 25 TP106 - 12V CHB	12242	10906	13499	PASS
Step 25 TP108 - 40V CHB	40439	36355	45070	PASS
Step 26 TP110 - Load -	174	121	300	PASS
Step 26 Shunt	8795	7578	9727	PASS
Step 26 TP106 - 12V CHB	12255	10913	13504	PASS
Step 26 TP108 - 40V CHB	40326	36273	44970	PASS
Step 27 TP110 - Load -	214	145	300	PASS
Step 27 Shunt	14501	12524	16052	PASS
Step 27 TP106 - 12V CHB	12259	10915	13507	PASS
Step 27 TP108 - 40V CHB	39145	33229	44921	PASS
Step 28 TP109 - Load +	120	72	175	PASS
Step 28 Shunt	669	519	740	PASS
Step 28 TP106 - 12V CHB	12242	10906	13499	PASS
Step 28 TP108 - 40V CHB	40451	36355	45082	PASS
Step 29 TP109 - Load +	147	108	200	PASS
Step 29 Shunt	5565	4734	6073	PASS
Step 29 TP106 - 12V CHB	12249	10906	13499	PASS
Step 29 TP108 - 40V CHB	40349	36283	45008	PASS
Step 30 TP109 - Load +	187	132	300	PASS
Step 30 Shunt	9270	7929	10128	PASS
Step 30 TP106 - 12V CHB	12255	10913	13504	PASS
Step 30 TP108 - 40V CHB	40326	36273	44958	PASS
Step 31 TP110 - Load -	107	72	175	PASS
Step 31 Shunt	665	523	732	PASS
Step 31 TP106 - 12V CHB	12242	10906	13499	PASS
Step 31 TP108 - 40V CHB	40451	36355	45082	PASS
Step 32 TP110 - Load -	147	96	200	PASS
Step 32 Shunt	5543	4734	6085	PASS
Step 32 TP106 - 12V CHB	12249	10906	13499	PASS
Step 32 TP108 - 40V CHB	40360	36283	45008	PASS
Step 33 TP110 - Load -	174	121	300	PASS
Step 33 Shunt	9240	7922	10152	PASS
Step 33 TP106 - 12V CHB	12255	10909	13504	PASS
Step 33 TP108 - 40V CHB	40326	36263	44958	PASS
Step 34 ADC DUT	959	806	1053	PASS
Step 34 TP41 - V+ Load ADC	1003	825	1097	PASS
Step 35 ADC DUT	806	674	879	PASS
Step 35 TP41 - V+ Load ADC	814	680	887	PASS
Step 36 ADC DUT	953	804	1054	PASS
Step 36 TP44 - V- Load ADC	998	825	1100	PASS
Step 37 ADC DUT	799	674	882	PASS
Step 37 TP44 - V- Load ADC	806	674	890	PASS
Step 38 ADC DUT	959	805	1051	PASS
Step 38 TP41 - V+ Load ADC	1004	825	1099	PASS
Step 39 ADC DUT	804	671	875	PASS
Step 39 TP41 - V+ Load ADC	808	673	880	PASS
Step 40 ADC DUT	949	799	1049	PASS
Step 40 TP44 - V- Load ADC	996	822	1097	PASS
Step 41 ADC DUT	799	674	880	PASS
Step 41 TP44 - V- Load ADC	805	673	889	PASS

Checking channel C (58 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Step 1 TP24 - 12V CHC	12242	10891	13485	PASS
Step 1 TP96 - 40V CHC	39724	33596	44783	PASS
Step 2 TP63 - DC+ CHC	38	0	60	PASS
Step 3 TP99 - DC- CHC	41	0	60	PASS
Step 4 TP63 - DC+ CHC	1152	989	1261	PASS
Step 4 TP99 - DC- CHC	26	0	50	PASS
Step 5 TP63 - DC+ CHC	5564	4814	6134	PASS

Step 5 TP99 - DC- CHC	26	0	50	PASS
Step 6 TP63 - DC+ CHC	9973	8642	10999	PASS
Step 6 TP99 - DC- CHC	29	0	50	PASS
Step 7 TP63 - DC+ CHC	20	0	50	PASS
Step 7 TP99 - DC- CHC	1155	1003	1274	PASS
Step 8 TP63 - DC+ CHC	23	0	50	PASS
Step 8 TP99 - DC- CHC	5561	4828	6117	PASS
Step 9 TP63 - DC+ CHC	23	0	50	PASS
Step 9 TP99 - DC- CHC	9961	8655	10964	PASS
Step 10 Shunt	636	519	772	PASS
Step 10 TP97 - Load +	40189	36110	44783	PASS
Step 10 TP2 - Relay Out +	93	60	120	PASS
Step 11 Shunt	713	582	801	PASS
Step 11 TP2 - Relay Out +	40323	36230	44916	PASS
Step 12 Shunt	636	513	719	PASS
Step 12 TP98 - Load -	40054	35977	44622	PASS
Step 12 TP1 - Relay Out -	93	60	150	PASS
Step 13 Shunt	709	586	801	PASS
Step 13 TP1 - Relay Out -	40081	36013	44651	PASS
Step 14 TP97 - Load +	59	29	175	PASS
Step 14 Shunt	956	774	1059	PASS
Step 14 TP24 - 12V CHB	12262	10922	13515	PASS
Step 14 TP96 - 40V CHB	40360	36263	44958	PASS
Step 15 TP97 - Load +	120	77	200	PASS
Step 15 Shunt	8633	7426	9505	PASS
Step 15 TP24 - 12V CHB	12276	10924	13521	PASS
Step 15 TP96 - 40V CHB	40224	36181	44845	PASS
Step 16 TP97 - Load +	158	106	300	PASS
Step 16 Shunt	14420	12448	15886	PASS
Step 16 TP24 - 12V CHB	12286	10931	13529	PASS
Step 16 TP96 - 40V CHB	40053	34342	44795	PASS
Step 17 TP98 - Load -	61	29	175	PASS
Step 17 Shunt	941	764	1064	PASS
Step 17 TP24 - 12V CHB	12262	10918	13515	PASS
Step 17 TP96 - 40V CHB	40360	36273	44958	PASS
Step 18 TP98 - Load -	122	77	200	PASS
Step 18 Shunt	8582	7383	9537	PASS
Step 18 TP24 - 12V CHB	12276	10924	13518	PASS
Step 18 TP96 - 40V CHB	40224	36181	44858	PASS
Step 19 TP98 - Load -	159	108	300	PASS
Step 19 Shunt	14343	12382	15930	PASS
Step 19 TP24 - 12V CHB	12282	10931	13529	PASS
Step 19 TP96 - 40V CHB	40122	34281	44795	PASS
Step 20 ADC DUT	1015	848	1130	PASS
Step 20 TP50 - V+ Load ADC	1054	865	1178	PASS
Step 21 ADC DUT	853	714	944	PASS
Step 21 TP50 - V+ Load ADC	860	714	952	PASS
Step 22 ADC DUT	998	834	1133	PASS
Step 22 TP53 - V- Load ADC	1037	858	1179	PASS
Step 23 ADC DUT	839	700	945	PASS
Step 23 TP53 - V- Load ADC	842	703	950	PASS

BQ Programming (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
BQ Programming	-	-	-	PASS

Main microcontroller programming with PGM FINAL (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Main microcontroller programming with PGM FINAL	-	-	-	PASS
Firmware Version Primary uC	4717	-	-	-

Turning on the device (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Turning on the device	-	-	-	PASS

Secondary microcontroller programming with PGM FINAL (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Secondary microcontroller programming with PGM FINAL	-	-	-	PASS
Firmware Version Secondary uC	3385	-	-	-

Turning off the device (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Turning off the device	-	-	-	PASS

Measurement of the standby consumption of the equipment (1 test).

Test Description	Reading	Lower Range	Upper Range	Result
Current – Low side (standby)	175	136	259	PASS

17/07/2024 14:08:07 Mockup Main Board Checking (4 tests).

Test Description	Reading	Lower Range	Upper Range	Result
Reference Voltage - Microcontroller	4089	4008	4172	PASS
AT MPP Manual Measurement	4098	4008	4172	PASS
Reference Voltage – Multiplexer 1	4089	4008	4172	PASS
Reference Voltage – Multiplexer 2	4090	4008	4172	PASS
Comms	OK	-	-	PASS

All tests performed with the overall result of PASS