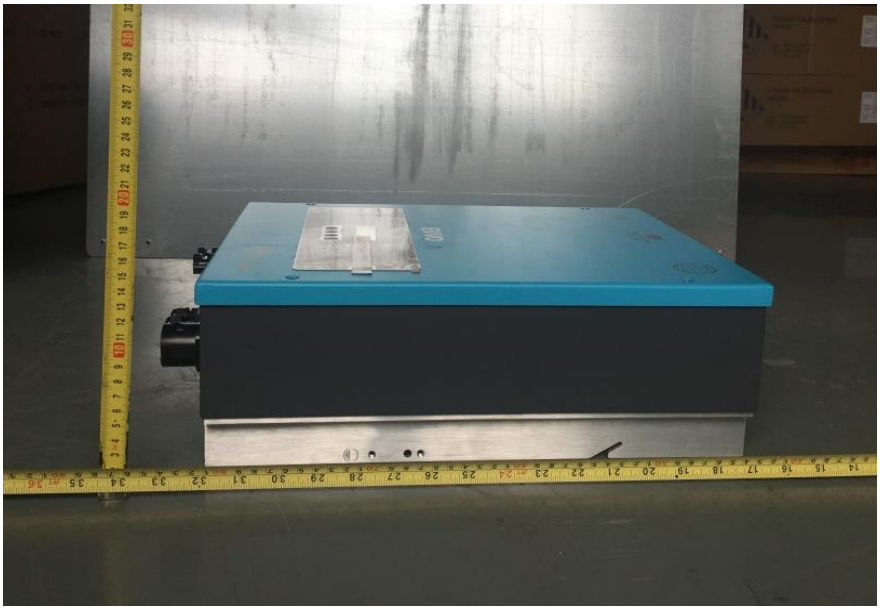
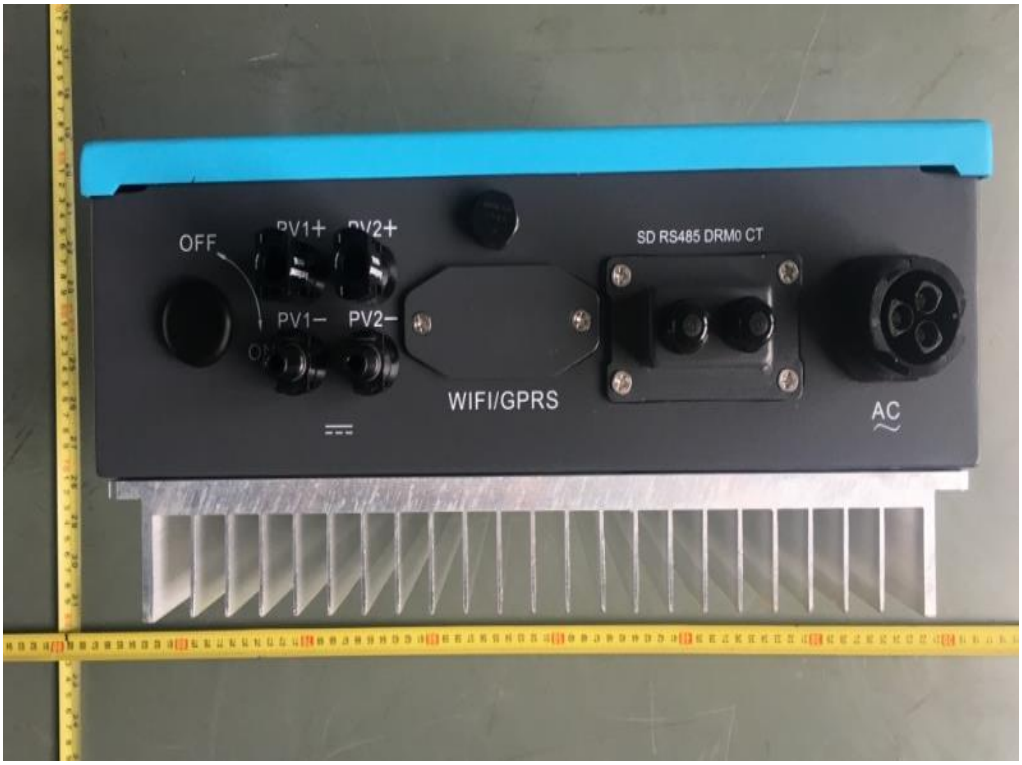
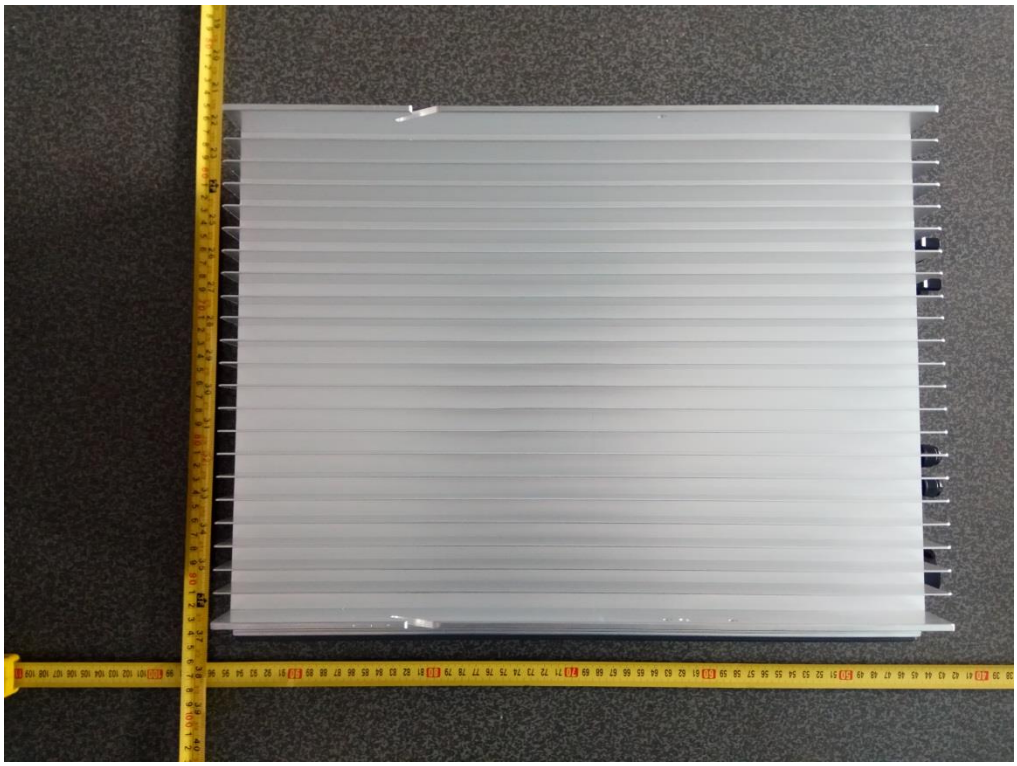
ATTACHMENT I

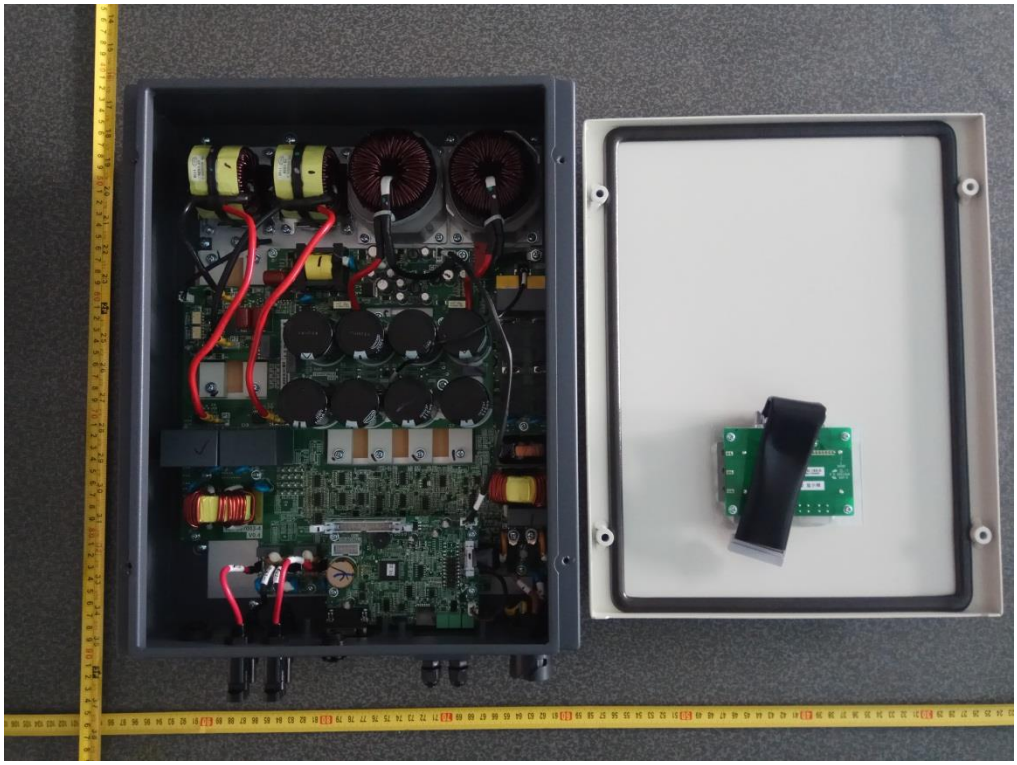
(Pictures of the EUT and Electrical Schemes)

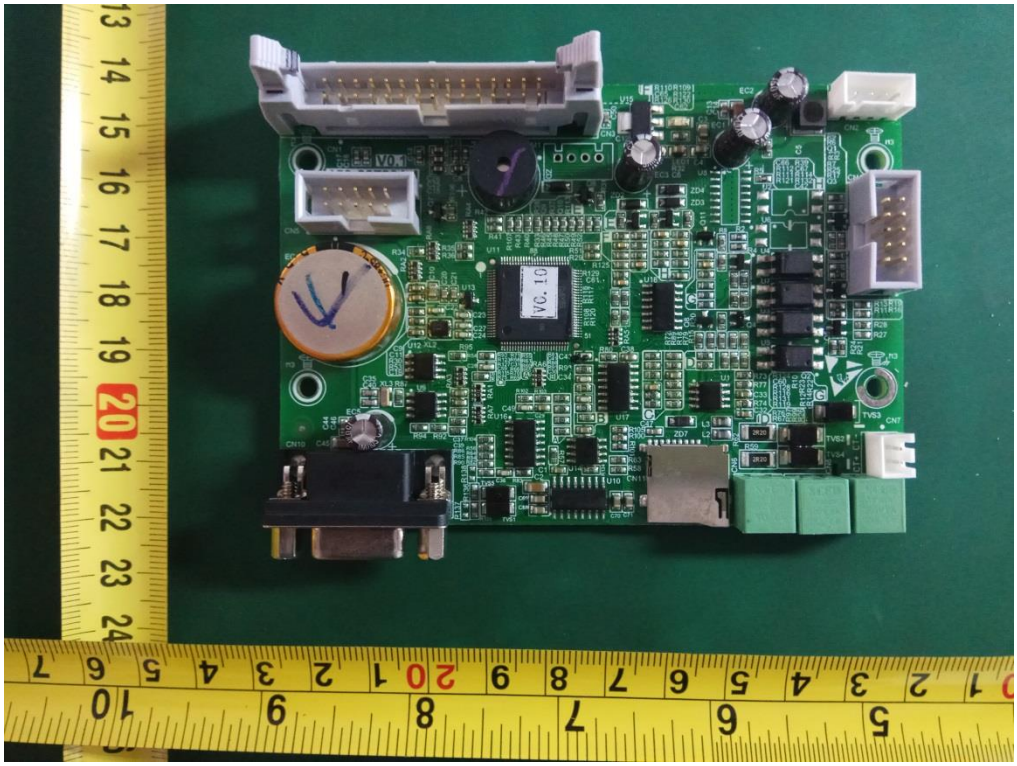
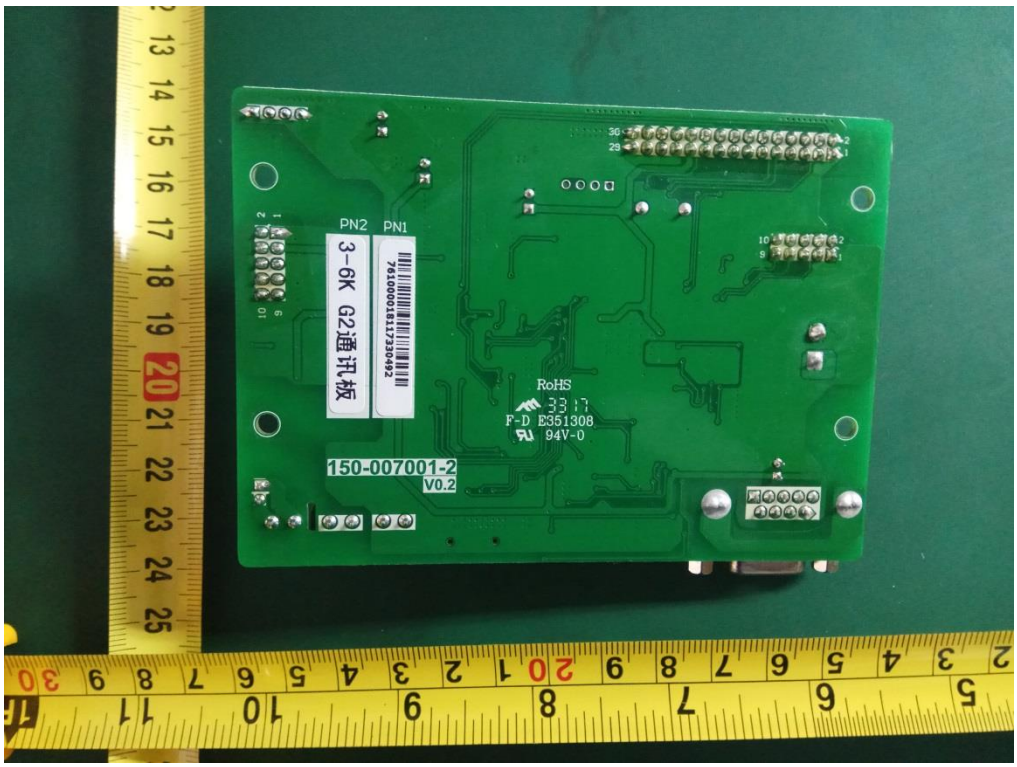
1 PICTURES

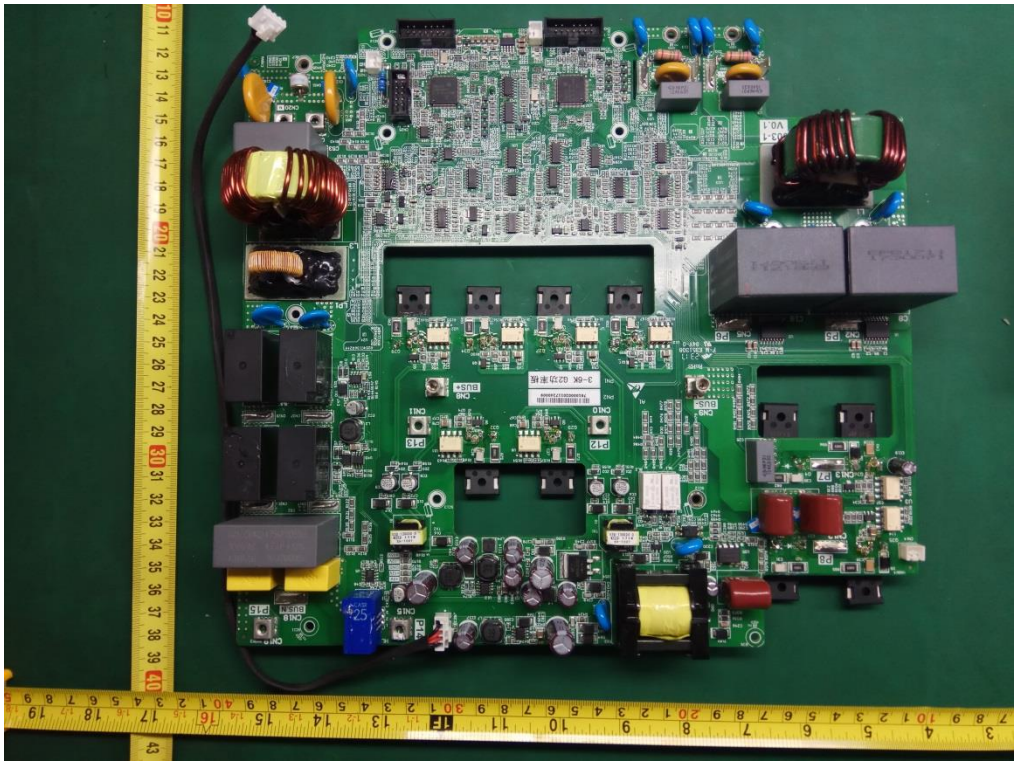
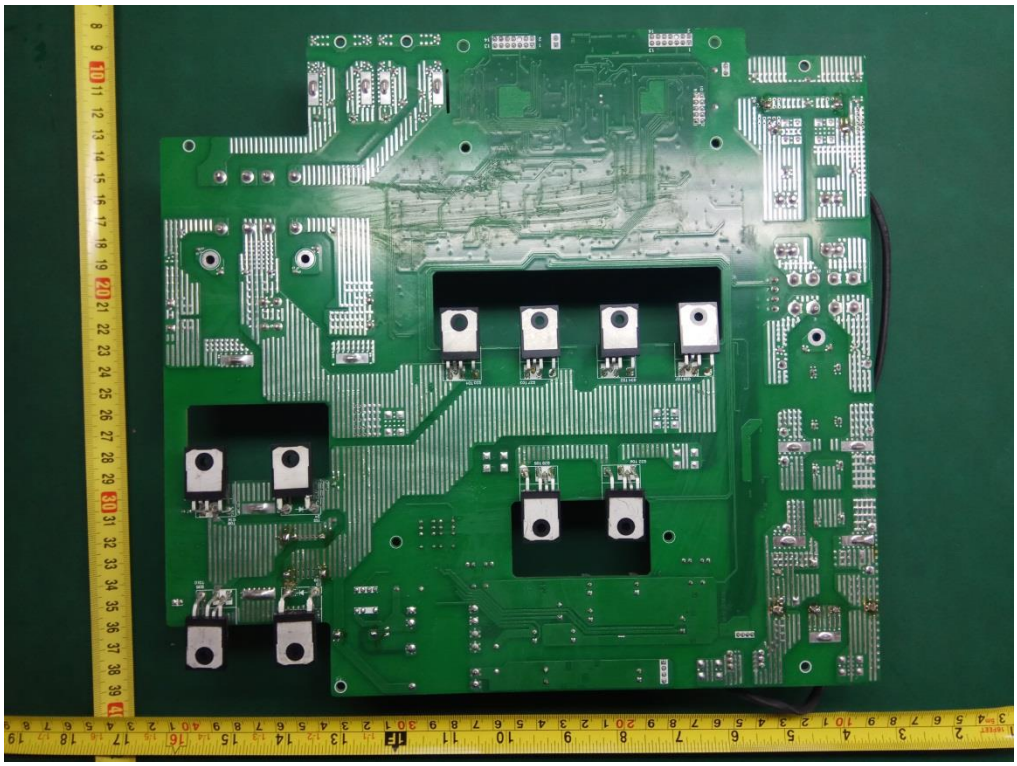
Front

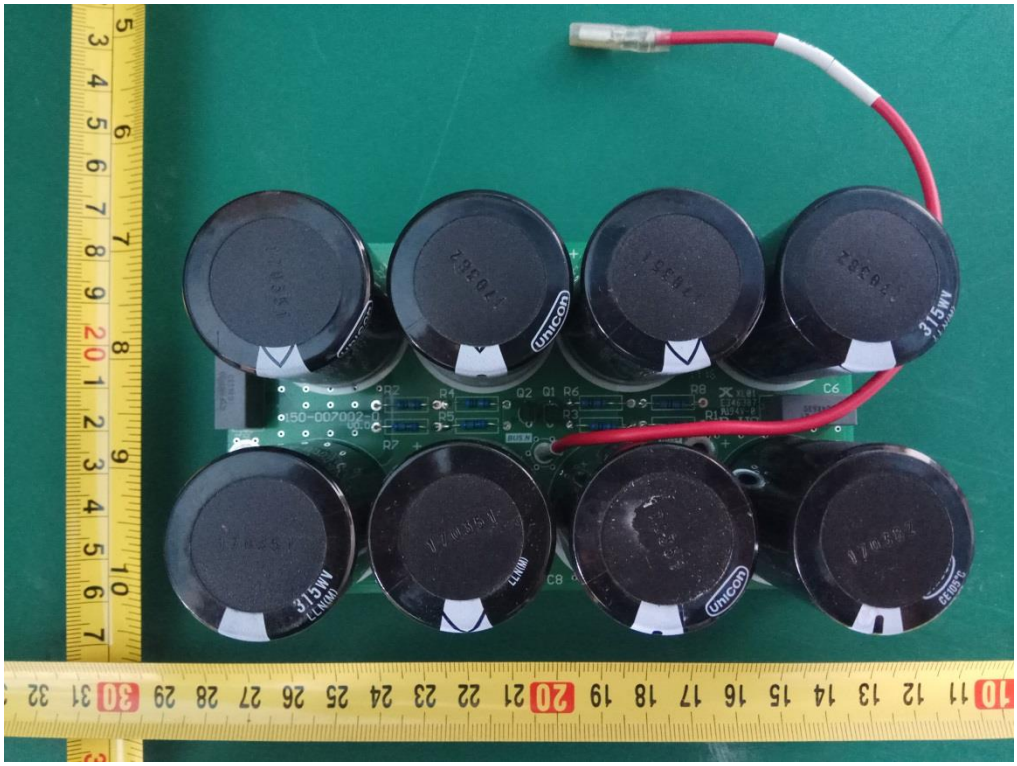
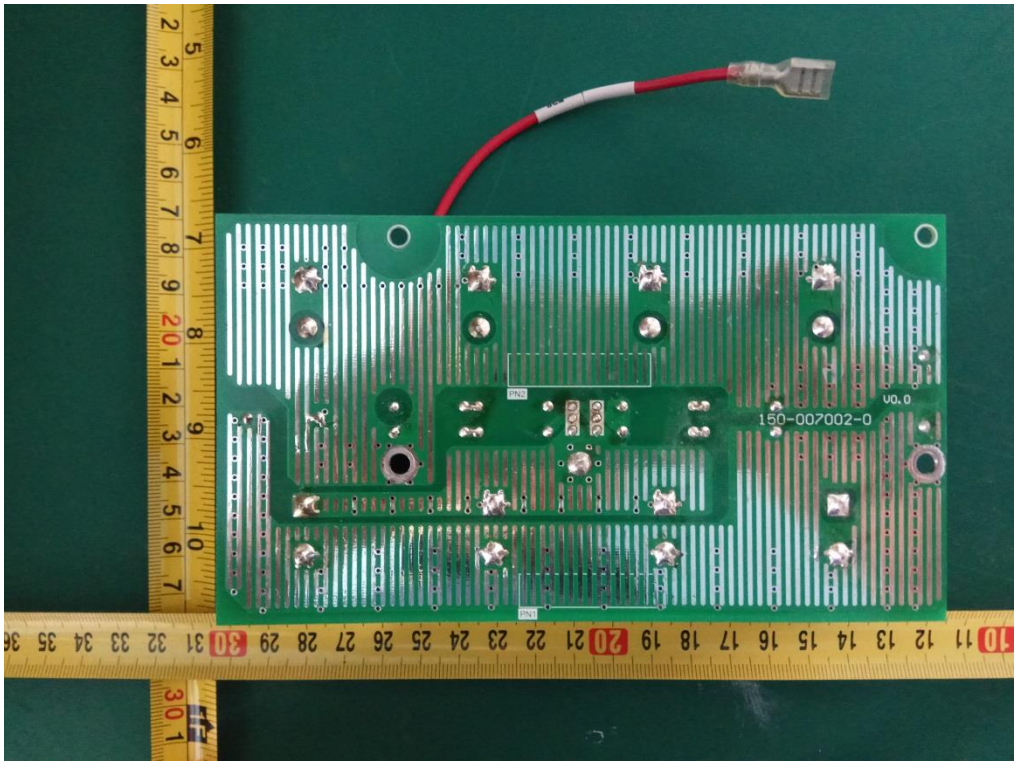
Side


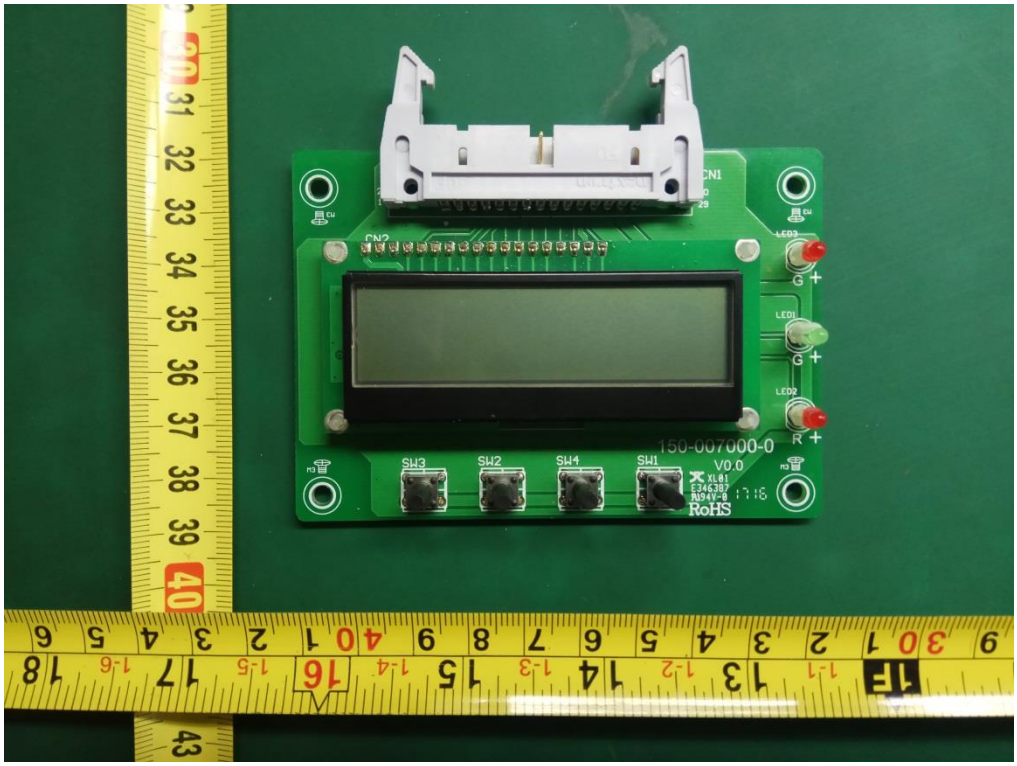
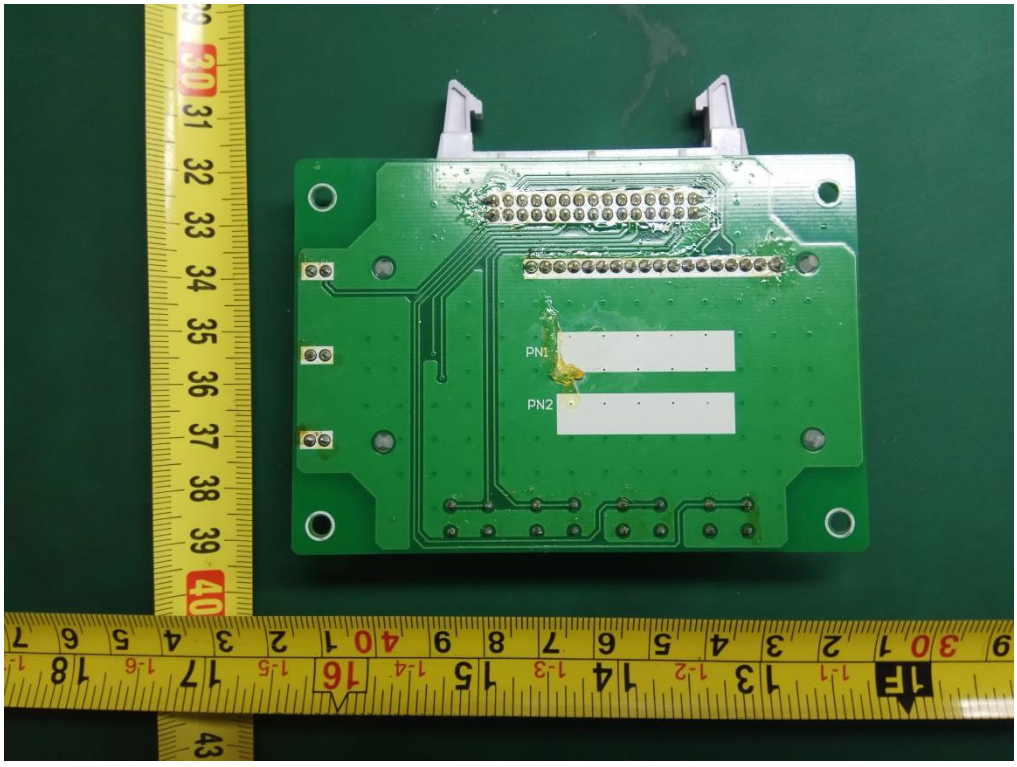
Connection interface

Back Side


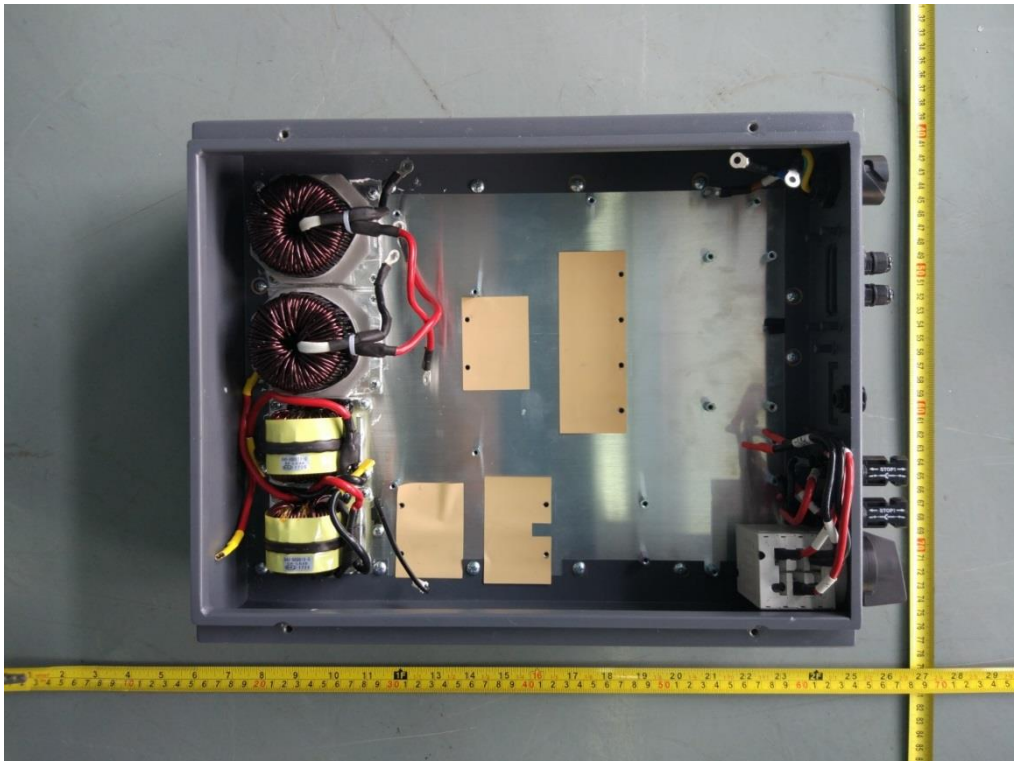
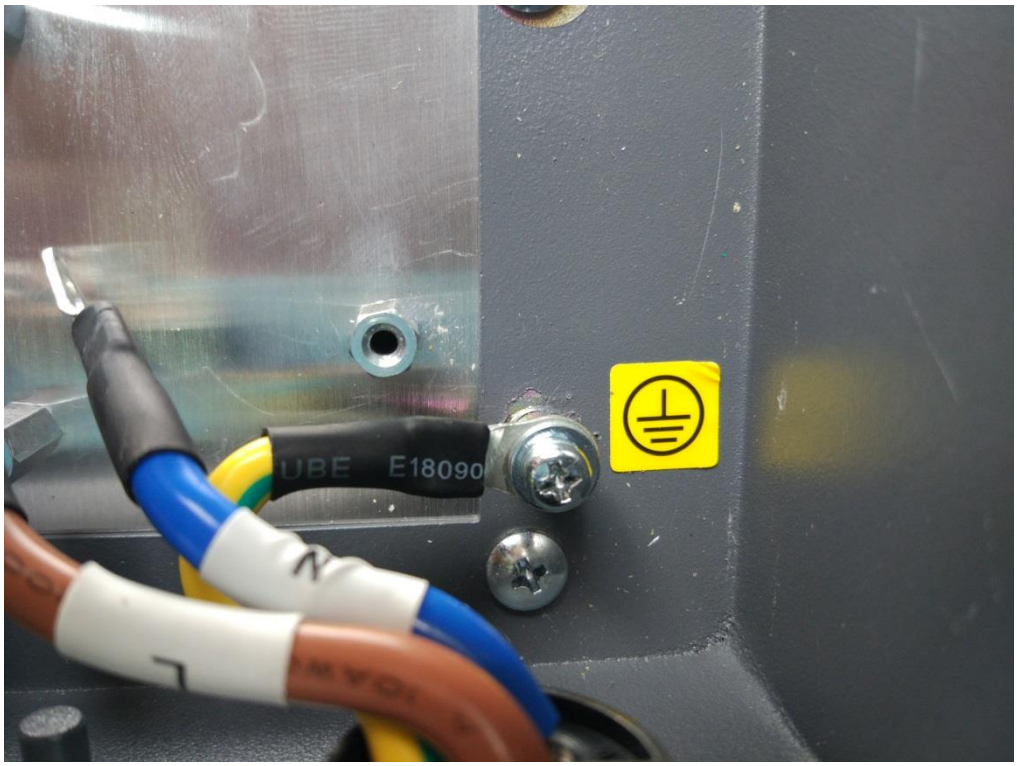
Internal

Internal


Front side of communication baord

Back side of communication baord


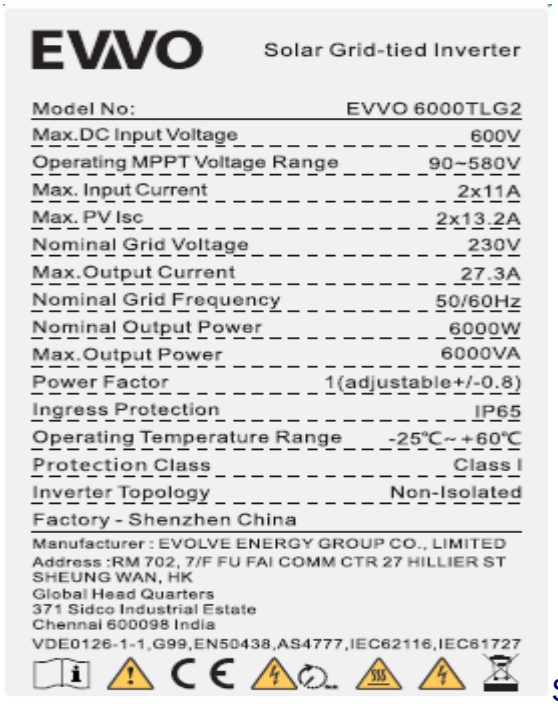
Front side of Main board

Front side of Main board


Front side of Bus capacitors board

Back side of Bus capacitors board


Front side of display board

Back side of display board


Removed all PCBAs

Cover


Labels

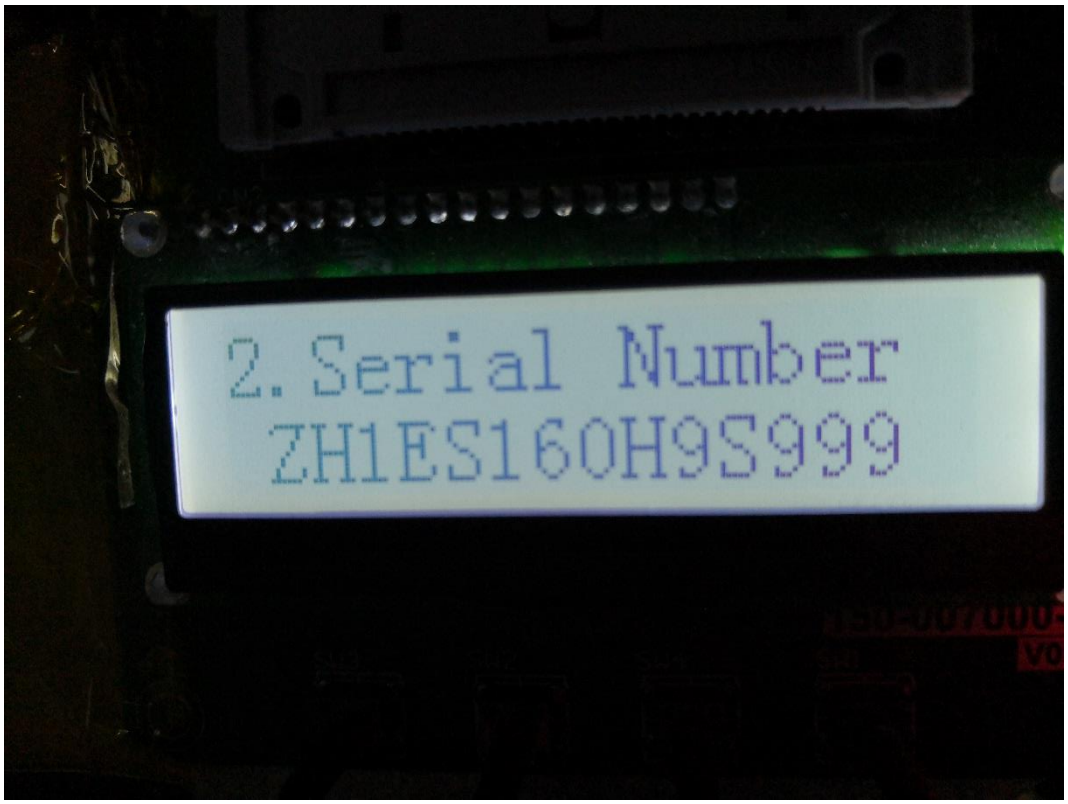


S

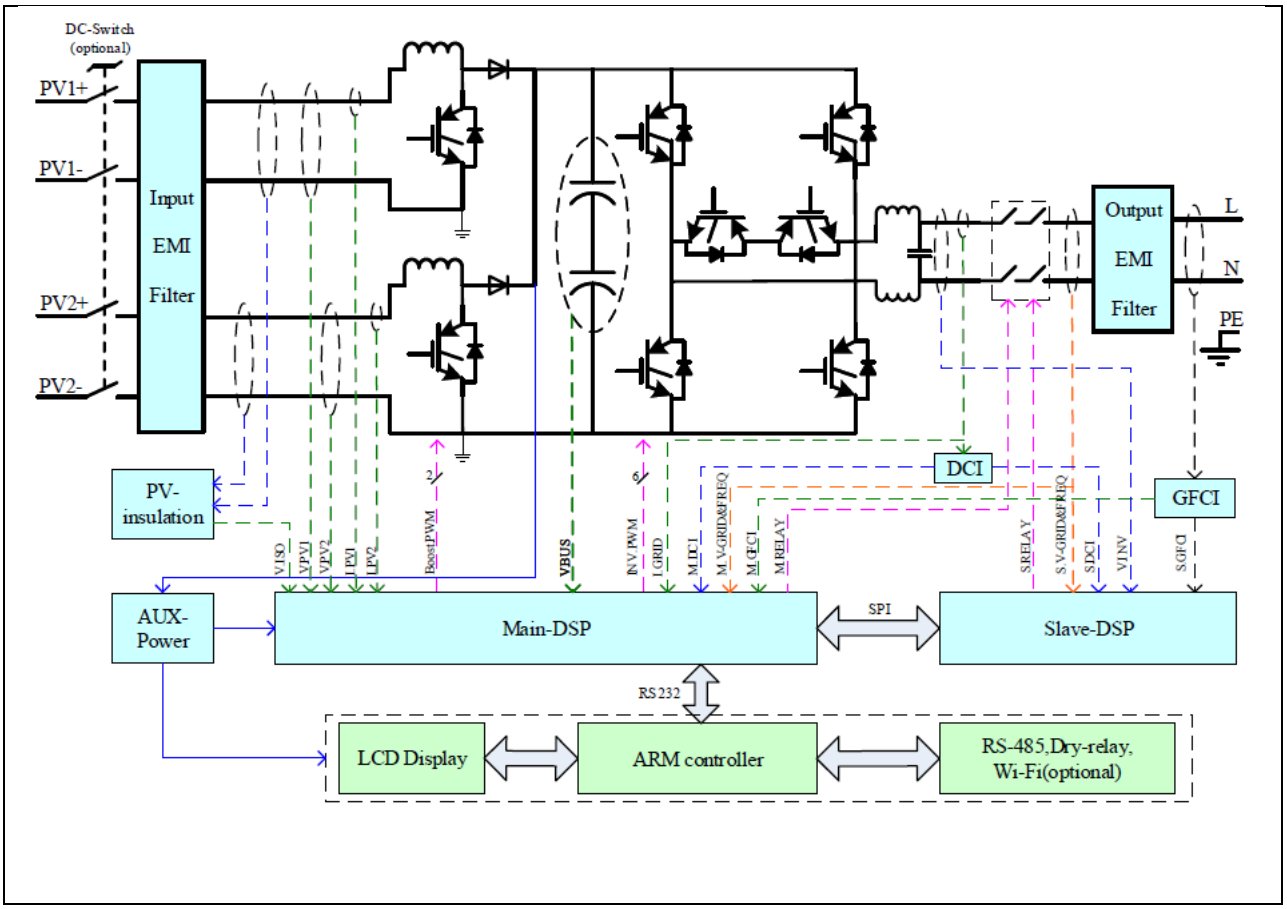
Software Version

Serial Number of the EUT

Serial Number of the EUT for spot-check test



2 ELECTRICAL SCHEMES



ATTACHMENT II

(Testing information)

1 TESTING CIRCUIT

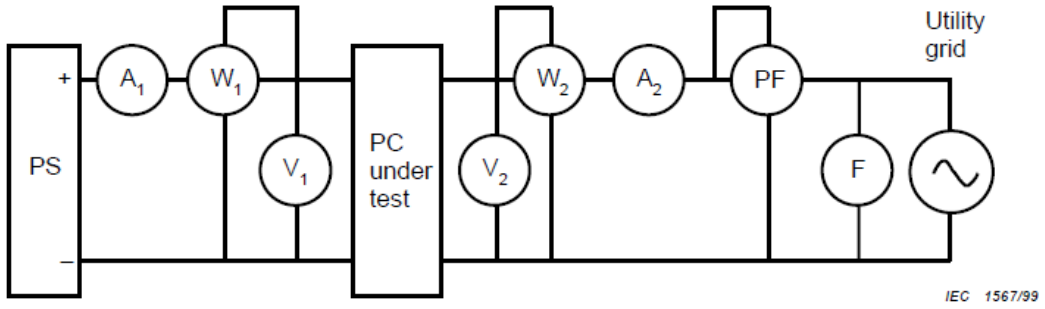


Figure 1b – Utility-interactive type

PC	power conditioner	L	load
PS	variable voltage-current d.c. power supply	F	frequency meter
A_1	DC ammeter	V_1	DC voltmeter
A_2	AC or d.c. ammeter	V_2	AC or d.c. voltmeter
W_1	DC wattmeter	PF	power factor meter
W_2	AC or d.c. wattmeter		

Current and voltage clamps have been connected to the inverter input/output for all the tests.

All the tests and checks have been performed in accordance with the reference standard under testing.

2 TESTING EQUIPMENT

No.	Equipment Name	MARK/Model No.	Equipment No.	Equipment calibration due date
1	AC source	Chroma / 61860	--	--
2	PV array simulator	Chroma / 62150H-1000S	--	--
3	Current clamp	FLUKE / i1000s	30413441	2018-02-15
4	Differential probe	Sanhua / SI-9110	111134	2018-02-15
5	Temperature & Humidity meter	VICTOR / VC230A	WS01	2018-09-03
6	Power analyzer	YOKOGAWA / WT 3000	EP-011	2018-08-05
7	Digital oscilloscope	YOKOGAWA/DL 850	EP-001	2018-10-22

Equipment for spot-check test

From	No.	Equipment Name	MARK/Model No.	Equipment No.	Equipment calibration due date
Sofar Solar	1	AC source	Chroma / 61860	--	--
	2	PV array simulator	Chroma / 62150H-1000S	--	--
	3	Current clamp	FLUKE / i1000s	29503223	2020-02-12
	4	Differential probe	Sanhua / SI-9110	111541	2020-02-12
	5	Temperature & Humidity meter	Anymeters / TH101B	201030245220	2020-02-12
	6	Power analyzer	YOKOGAWA / WT 3000	91N610888	2020-02-12
	7	Digital oscilloscope	Agilent / DS05014A	MY50070266	2020-02-12
SGS	8	True RMS Multimeter	Fluke / 289C	GZE012-53	2020/01/24

Items	Specifications
1) PV array simulator	
a) Voltage range	0 – 1000Vdc (0.01V step)
b) Current range	0 – 40A (0.01A step)
2) AC power source	
a) Output wiring	Three phase
b) Output capacity	100KVA
c) Output voltage	10-300Vrms
d) Output frequency	45-65Hz
e) Voltage stability	± 100ppm/℃
f) Output voltage distortion	0.05% max.
3) Digital meter	
a) Voltage range	0 – 1000Vdc, 0 – 600Vrms
b) Current range	0 – 30A
c) Frequency range (accuracy)	0.2%
d) Measurement items	Voltage (V) Current (A) Active power (W) Reactive power (Var) Volt-ampere (VA) Power factor (PF) Frequency (Hz) Electric energy (Wh)
4) Waveform recorder	
a) Sampling speed	1M/s
b) Recording device	Memory record and USB reading
c) Time accuracy	± 500ppm
5) AC load	
a) Resistive load	Maximum voltage: 300Vrms Current range: 0 – 100A Capacity: 100KW
b) Inductive load	Maximum voltage: 300Vrms Current range: 0 – 100A Capacity: 100KVA
c) Capacitive load	Maximum voltage: 300Vrms Current range: 0 – 100A Capacity: 100KVA

3 MEASUREMENT UNCERTAINTY

Voltage measurement uncertainty	±0.05 %
Current measurement uncertainty	±0.05 %
Frequency measurement uncertainty	±0.001 Hz
Time measurement uncertainty	±0.001s
Power measurement uncertainty	±0.5 %
Phase Angle	±0.1º
Cosφ	±0.01%

Note1: Measurements uncertainties showed in this table are maximum allowable uncertainties. The measurement uncertainties associated with other parameters measured during the tests are in the laboratory at disposal of the solicitant.