



LEN

MANUFACTURING
CENTER

Quality • Cost • Delivery

BUMN UNTUK
INDONESIA



PT. Len Industri (Persero) is a technology-based state-owned company engaged in renewable energy, defense electronics, railway transportation and ICT & navigation. In running the business, we have the ability of doing product manufacturing, such as, solar modules, electronics (SMT),

railway signaling equipment, military tactical radio and others. Len is equipped with manufacturing facilities ranging from electronics to mechanics, which can meet your needs. Len also has a test room facility to test the developed products.



Stringer machine

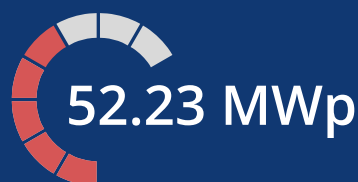


Stringer machine



Stringer machine

Total Production
Until Aug 2021



PV Module Factory

CAPACITY & EXPERIENCE

- Experience more than 20 years
- Capacity = 71 MWp
- Soldering Operator Certified by IPC & BNSP

PRODUCTION LINE

Automatic Soldering (Stringer Machine)

QUALITY

100 % EL Inspection (Before & After Lamination), ensures modules are defect free

PV CERTIFICATION

Our factory comply with TUV Requirement for IEC 61215, 61730, Salt Mist, Ammonia & PID Certification



EL 1 Inspection Machine



EL 2 Inspection Machine



Laminating Machine



Lay Up Machine



Sun Simulator Machine



Framing Machine



Electronics Factory

1st
Floor 2573 m²

2nd
Floor 720 m²

NO	COMPETENCIES	RESOURCES
1	THT Soldering	Selective Machine Wave Soldering Certified Operator by IPC
2	SMD Soldering	SMT Machines Certified Operator by IPC
3	Automatic Soldering Inspection	AOI Machine Certified Operator by IPC
4	Assembling & Soldering	Certified Operator by IPC
5	PCBA Touch Up	Certified Operator by IPC
6	Rework & Repair Electronic Assemblies	Certified Operator by IPC
7	BGA Rework	BGA Rework Machine Trained Operator
8	Conformal Coating	Coating Machines Trained Operators
9	Screwing	Certified Operator by BNSP
10	Wiring & Harnessing	Certified Operator by IPC
11	Testing	Trained Operators
12	Mechanical Assembling	Certified Operators





Stencil Printer & SPI

Mounter

Reflow Oven

AOI (Automatic Optical Inspection)

ISM & Storage

Electronics Factory

PCBA ASSEMBLING-SMT LINE



Wave Soldering Machine



Selective Soldering Machine



BGA Rework



Xray Machine (PCBA Inspection)



PCBA Coating Machine

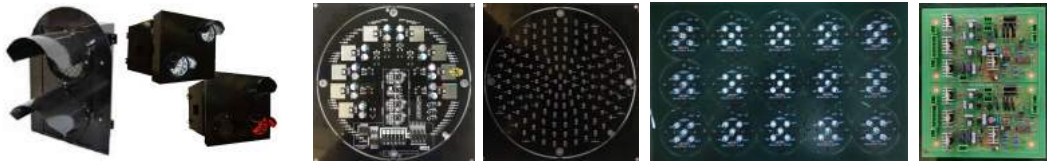
PCBA ASSEMBLING-OTHERS



Electronics Factory

PRODUCT PORTFOLIO

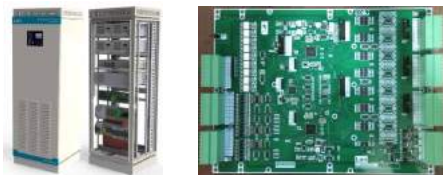
Railway Signal Lamp



E-KTP Reader



Inverter



Radio



Testing Environment Equipment

NO	COMPETENCIES	RESOURCES
1	Climate Simulation Testing, Resources climate chamber/ESS	Temp Test Equipment Trained Operators
2	Vibration Testing	Vibration Test Equipment Trained Operators
3	Mechanical Shock Testing	Mechanical Shock Test Equipment Trained Operators
4	Drop Testing	Drop Test Equipment Trained Operators
5	Leakage Testing	Drop Test Equipment Trained Operators
6	Electronics Communication Testing	Universal Test Bench Octopack Test Bench Trained Operators



Climate chamber / Environment stress screen chamber



Climate chamber / Environment stress screen chamber



Vibration Test Equipment



Drop Test Equipment



Mechanical Shock Test Equipment

NO	SPECIFICATION	VALUE
1	Test Space Volume	800 Liter
2	Test Space Dimension (mm)	1000(W)x 1000(D)x 800 (D)
3	Temperature Range	-70 ⁰ C - 180 ⁰ C
4	HumidityRange	20%RH - 98%RH

NO	SPECIFICATION	VALUE
1	Test Space Volume	815 Liter
2	Test Space Dimension (mm)	1000(W)x 1000(D)x 925 (D)
3	Temperature Range	-70 ⁰ C - 180 ⁰ C
4	HumidityRange	10%RH - 98%RH

NO	SPECIFICATION	VALUE
1	Shake Axiz	Vertical Table & Horizontal Table
2	Effective load of Vertical Table	265 kg
3	Effective load of Horizontal Table	260 kg
4	Frequency Range	2 - 3000 Hz
5	Max. Acceleration	100G
6	Max. Load (sine)	5G (190 kg) 10G (90 kg) 20G (40 kg) 30G (23 kg)

NO	SPECIFICATION	VALUE
1	Drop Height Range	300 - 2000 mm
2	Specimen Max. Weight	85 kg
3	Specimen Max. Size	800 x 800 x 800 mm
4	Drop Mode	Free Drop

NO	SPECIFICATION	VALUE
1	Table Size	700 x 700 mm
2	Max. Specimen Weight	100 kg
3	Peak Acceleration Half Sine Saw Tooth	100 - 600 m/s ² 15 - 100 m/s ²
4	Pulse Duration Half Sine Saw Tooth	2 - 30 ms 6 - 20 ms
5	Shock Distance Range	1500 mm



Testing Area



Universal Test For Communication Radio : 4 set



Test Bench For Octopack (Radar Component) : 2 set



1st
Floor

± 1025 m²

Mechanical Factory

NO	COMPETENCIES	MACHINES	OPERATORS
1	Welding	MIG/SAW Machine (4/7)	Certified Operators by BNSP
2	Blandering	Torch Welding Machine (1)	Certified operators
3	Sawing	Sawing Machine (2)	Certified operators
6	Drilling	Drilling Machine (10)	Certified operators
7	Tapping	Tap Matic Machine (1)	Certified operators
8	Grinding	Grinding Machine (7)	Certified operators
10	Lathe Process	Lathe Machine (5)	Certified operators
14	Assembling	Tool set	Certified operators
15	Crane Operating	Crane (1)	Certified operators
16	Painting: sand blast & wet spray	Painting Facilities	Certified operators

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