MAXEON™ GEN II SOLAR CELLS

Power Advantage
SunPower designs, manufactures, and delivers high-performance solar electric technology worldwide. SunPower™ cells produce 25-35% more power compared to Conventional Cells1 with outstanding aesthetics.

Energy Advantage
SunPower panels deliver the highest energy per rated watt compared to a Conventional Panel. (Photon International, Mar 2013, out of 151 panels tested).

• No Light-Induced Degradation = 2 - 3% more energy.
• No Temperature Coefficient = 1 - 2% more energy at 35-40°C ambient temperature.
• Low Light and Broad Spectral Response = up to 1% more energy in overcast and low-light conditions.

Durability Advantage
The Maxeon cell has strength and durability to survive extreme conditions year after year, enabling SunPower to provide superior, long-term performance in a broad range of applications.

• Corrosion Resistance: SunPower’s tin-copper metal system is more corrosion resistant compared to the porous metal paste used in Conventional Cells, which can crack more easily and corrode.
• Crack Resistance: SunPower’s cells are thinner and more flexible than Conventional Cells. When a SunPower cell does crack, the backside copper metal foundation keeps the cell intact and maintains a high power output. When Conventional Cells crack, the cell breaks apart with typically a significant loss of power.
• Eco-Friendly: SunPower cells solder to lead-free components and are RoHS compliant. Conventional Cells often require components with lead.

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1 As used throughout, “Conventional Cells” are silicon cells that have many thin metal lines on the front and 2 or 3 interconnect ribbons soldered along the front and back. “Conventional Panel” means a panel with 240 W, 15% efficiency and approximately 1.6 m² made with Conventional Cells.
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**Electrical Characteristics of a typical Maxeon Gen II Cell**

### At Standard Test Conditions (STC)

<table>
<thead>
<tr>
<th>STC: 1000W/m², AM 1.5G and cell temp 25°C</th>
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<tbody>
<tr>
<td>Cell Bin</td>
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<tr>
<td>------------------------------------------------</td>
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<tr>
<td>Peak Performance</td>
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<tr>
<td>Premium Performance</td>
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<td>Superior Performance</td>
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Electrical parameters are nominal values.

**References**

- SunPower: NREL data, commissioned by SPWR

**Spectral Response**

- SunPower
- Conventional
- Solar Spectrum, ASTM G173-03

**Cell Physical Characteristics**

- Wafer: Monocrystalline silicon
- Design: All-back contact
- Front: Uniform, black antireflection coating
- Back: Tin-coated, copper metal grid
- Cell Area: Approximately 153 cm²
- Cell Weight: Approximately 6.5 grams
- Cell Thickness: 150 μm +/- 30 μm

**Positive Electrical Grounding**

If cell voltage is below frame ground the cell power output will be reduced. Therefore, modules and systems produced using these cells should be configured as “positive ground systems.” If this creates a problem, please consult with SunPower.

**Interconnect Tab and Process Recommendations**

- SunPower recommends customers use SunPower’s patented tin-plated copper strain-relieved interconnect tabs, which can be purchased from SunPower. These interconnects are easily solderable and compatible with lead free processing. Tabs weigh approximately 0.3 grams.
- Our patented interconnect tabs are packaged in boxes of 3600 or 36,000 each.
- http://us.sunpower.com/about/sunpower-technology/patents/

**Production Quality**

- ISO 9001:2015 certified
- Soft handling procedures to reduce breakage and crack formation
- 100% cell performance testing and visual inspection

**Packaging**

- Cells are packed in boxes of 1500 each, grouped in 10 shrink-wrapped stacks of 150 with interleaving. 24 boxes are packed in a water-resistant “Master Carton” containing 36,000 cells suitable for air transport.

**Purchase Terms**

- Customers shall not reverse engineer, disassemble or analyze the Solar Cells or any prototype, process, product, or other item that embodies Confidential Information of SunPower. Customers shall not cause or allow any inspection, analysis, or characterization of any properties (whether mechanical, structural, chemical, electrical, or otherwise) of the Solar Cells, whether by itself or by a third party.
- Customer agrees that it will not transfer (whether by sale, loan, gift, or other conveyance) the Solar Cells from its possession.
- SunPower solar cells are provided “AS IS” without warranty. Full terms and conditions are in the Cell Purchase Agreement.

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