High-performance light-powered charger





GET SOLAR POWER ON THE GO! The NovaCell™ quickly charges cell phones, Smartphones, iPads, GPSs and other mobile devices using light generated power—just as fast as traditional wall charging! NovaCell is a go-anywhere, power-anything charger that's small enough to fit in your pocket.

More than a solar charger, NovaCell stores its own charge, and then transfers the power to a connected device. After the device is charged, it continues to keep it charged using even small amounts of available light. NovaCell helps your customers enjoy the continuous communication access and true mobility that comes from being untethered to traditional wall socket charging.

SELF-CHARGES UNDER ARTIFICIAL LIGHT. NovaCell is more than a solar charger. Proprietary technologies allow consumers to get free charging energy from virtually any light condition. So you can charge your mobile device in sunlight, shade, ambient light and artificial light—yes, it charges indoors, too!

With the limits of current lithium ion battery technology, many mobile users are forced to carry cumbersome back-up batteries. But NovaCell provides a continuously charging power source that's lightweight, very compact and easily fits in a briefcase, backpack, or even a back pocket.

EXPAND YOUR PRODUCT OPPORTUNITIES. Want to quickly expand your line-up of consumer product offerings? The NovaCell faceplate can be modified with your logo to help it become a new source of revenue for your company.

THE PERFECT GREEN CALLING CARD. NovaCell is a great way for OEMs, operators and distributors to gain entry into the "green" product markets. NovaCell technology takes full advantage of the abundant, free, and clean energy of light. This logo-ready, environmentally friendly device is an intelligent, ecological answer to the question of how to power mobile devices now and into the future.

FOR MORE INFORMATION VISIT WWW.SUNCORESOLAR.COM

NovaCell Features & Facts



PHOTOVOLTAIC PANEL (PV) Using proprietary technology from SunCore, the photovoltaic panel provides a spectral sensitivity range of 300 to 1200 nanometers—well beyond the visible light spectrum and into the infrared and ultraviolet band.

CHARGE MANAGEMENT As the NovaCell is moved within and between varying light conditions, the built-in intelligence of the charge-management circuitry and software optimizes the absorbed energy's transfer rate to the battery. This unique process creates the greatest voltage level and current output, ultimately extending a device's operating time.

BATTERY POWER INDICATORS Five LED indicators signal the NovaCell's built-in lithium ion battery charge status, shown at 20% increments with an accuracy of 1%.

LIGHT POSITIONING INDICATOR An LED icon on the top cover indicates the charge strength under various light conditions by changing color as it moves from soft (low light) to bright (intense light), directing the user toward the optimal source of light to maximize power reserves.

CONNECTING CABLES 12 gauge charging connection between NovaCell and an external mobile device, and a USB charge cable for NovaCell to laptop.

CONNECTORS An offering of connectors for today's most popular, power-hungry cell phones, Smartphones and other mobile devices are included. Additional and/or different connectors are available on request, dependent on order size.

TECHNICAL SPECIFICATIONS

CURRENT OUTPUT

PV Panel: 260 to 330mA Device Output: up to 1000mA

DEVICE SPECIFICATIONS

Output Voltage of 5.0 Vdc via Mini USB

Battery Capacity: 1600mA

CIRCUIT SPECIFICATIONS

Charger Circuit Efficiency: 91%

Boost Efficiency: 95% (93% @3Vdc to 96% @4.2Vdc)

Fuel Gauge Accuracy: 1%

High Accuracy Voltage (+/-0.5%) and Current (+/-5%) regulation

Programmable Termination Current: 15mA, 30mA, 45mA

Programmable Battery Regulation Voltage: 3.52 to 4.44 in 20mV steps

Programmable Battery Temperature Sensor

Programmable Hysteresis on Temperature Detect

Energy Harvesting with Reduced Charge Current: down to 1mA

 $\label{eq:maximum Power Point Tracking (MPPT) of the PV panel} \end{substitute}$

CC/CV Charge Algorithm

High Impedance Mode for Low Power Consumption

Compensates for PV voltage variations by continuing regulated charge

over operational battery range

Safety Timer

PHOTOVOLTAIC SPECIFICATIONS

Photovoltaic Panel Efficiency: >18% Thermal Isolation of PV panel from battery PV Panel: Vmp = 4.56, Imp = up to 330mA



DIMENSIONS

DEVICE

Length: 166.8 mm Width at mid-point: 71.3 mm Width top and bottom: 77.6 mm

Depth: 15.1 mm Weight: 177g

FACEPLATE FRAME

Top edge to PV panel: 13.4 mm PV panel to bottom edge: 33.4 mm

PV PANEL ASSEMBLY

Length: 120 mm Width: 60 mm

EXTERIOR CONSTRUCTION

EXTERIOR SHELL Impact resistant plastic

TOP COVER Impact resistant, transparent epoxy with full spectrum

transmission response

BACK-SIDE BASE Impact resistant plastic

SUNCORE CORPORATION

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