Revolutionary light-powered charger designed for the iPhone 4 & 4S

- Highest current output and unmatched performance compared to all solar-based chargers on the market
- Continuously charges under virtually any lighting condition, including indoors
- Advanced charging device, specifically engineered for the iPhone 4 & 4S

EnSphere™

Now charge your iPhone 4 & 4S in sunlight, shade or even indoors.

INSTANTLY POWER YOUR iPHONE 4 WITH LIGHT! The new EnSphere™ solar charger, an advanced light-driven device, encases your iPhone 4 with power. You can think of it as the ultimate iPhone 4 protector—a durable case that continuously charges your iPhone in any available light, without having to plug in to an electrical socket. And this specialized charging device does it faster than any wall outlet!

SELF-CHARGES BY AMBIENT LIGHT. The EnSphere uses proprietary technologies that allow users to get free charging energy from virtually any light source, even under low light conditions. So an iPhone 4 can be charged in sunlight, shade, ambient and artificial light—both outside and indoors! Now your customers can have the ultimate in portability and communication mobility.

The EnSphere provides continuous charging energy and fits an iPhone 4 like a glove, protects it, and won't block the camera. In addition to its use with the phone in place, the EnSphere can also separately charge itself and store power. As soon as it's reattached to an iPhone 4, the power will be transferred directly. And it stores enough power to fully charge an iPhone 4 twice, without any additional light exposure.

A QUICK WAY TO GO GREEN. With the EnSphere, you can easily establish or expand your line-up of green consumer products. The EnSphere takes full advantage of the abundant, free, and clean energy of light. This environmentally-friendly device is an intelligent, ecological way to give true mobility to an iPhone 4.

You can include this product in your line up as it is, or rebrand it with your own logo. And the EnSphere can be modified to better match your vision, product line and current brand attributes, and become an important new source of revenue for your company.

FOR MORE INFORMATION VISIT WWW.SUNCORESOLAR.COM

EnSphere Features & Facts

PERFORMANCE In the solar-based charging arena, the SmartCell™ technology inside the EnSphere develops 100-200 mA of charge current depending on the iPhone 4's final Photovoltaic (PV) panel size and lighting conditions. When exposed to ambient light, an iPhone surrounded by the EnSphere will deliver a robust charge to the phone's battery. And the stronger the light level, the greater the charge delivery, where a continuous charge all day long can mean a fully-charged iPhone 4 battery.

PHOTOVOLTAIC (PV) PANEL The inside proprietary technology enables the PV cells to transfer a greater amount of energy within the PV panel. Combined the PV panel becomes responsible for a spectral sensitivity range of 300 to 1200 nanometers—well beyond the visible light spectrum—including infrared and ultraviolet.

CHARGE MANAGEMENT As the EnSphere 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 ensures the greatest voltage level and current output, ultimately extending an iPhone 4's operating time.

BATTERY POWER INDICATORS An LED indicator on the PV panel cover changes color—red, yellow, green—to signal charge status.

LIGHT POSITIONING INDICATOR An LED icon on the PV panel cover indicates the charge strength from varying 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.

TECHNICAL SPECIFICATIONS

DEVICE SPECIFICATIONS

Output Voltage of 5.0 Vdc via Mini USB
Battery Capacity: 1600mA

CIRCUIT SPECIFICATIONS

Existing iPhone4 internal charger circuit unaffected.

Charger Circuit Efficiency: 91%
Boost Efficiency: 95% (93% @3Vdc to 96% @4.2Vdc)
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
Maximum Power Point Tracking (MPPT) of the PV panel
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: 22%
Thermal Isolation of PV panel from battery
PV Panel: Vmp = 4.56, Imp = up to 200mA

The EnSphere's slim, pocketable design enables full access to all iPhone 4 ports and features. The full-sized Photovoltaic panel maximizes light capture and charging power.

EXTERIOR CONSTRUCTION

EXTERIOR SHELL Impact resistant plastic
PHOTOVOLTAIC PANEL Full-size, impact resistant, transparent epoxy with full spectrum transmission response
WEIGHT Adds 2-4 grams to overall weight

SUNCORE CORPORATION
25 Edelman, Suite 100
Irvine, CA 92618 USA
Telephone 949.450.0054
Fax 949.450.0075

WWW.SUNCORESOLAR.COM