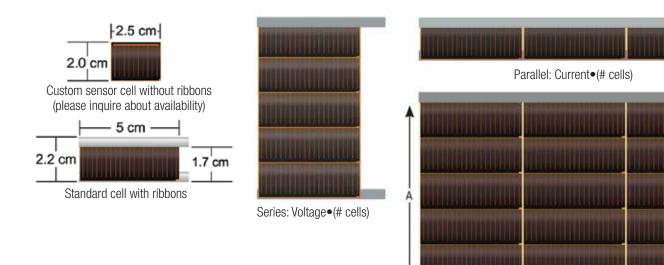
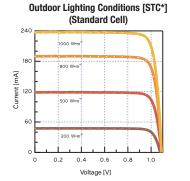
AnyLight™ Mobile Power Technology

Series - Parallel (AxB): Voltage • A, Current • B

Configurable Shapes and Sizes

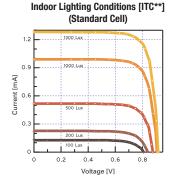


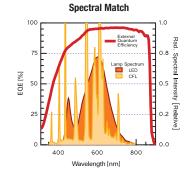
World record efficiency of 28.8% Power to weight ratio of 1 watt per gram Operating temperature range of -80°C to +100°C Power density of 250 watts per m²

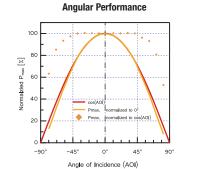


**Indoor test conditions [ITC]: 2700K LED, 25°C

*Standard test conditions [STC]: 1000 W • m-2, AM1.5, 25°C







Single Cell Performance Under Varying Lighting Conditions

L	ight Intensity	Output Power
Bright Sun	1000 W/m ²	214 mW
Indirect Sun	500 W/m ²	107 mW
Overcast	200 W/m ²	42 mW
Indoor Near Window	100 W/m ²	21 mW
Bright Industrial	1000 Lux	800 μW
Bright Office	500 Lux	390 µW
Warehouse	200 Lux	150 μW
Indirect Sun Overcast Indoor Near Window Bright Industrial Bright Office	500 W/m ² 200 W/m ² 100 W/m ² 1000 Lux 500 Lux	107 mW 42 mW 21 mW 800 µW 390 µW

Cell Electrical Properties

	Open/Short Circuit	Max Power
Voltage	1.09 V	0.96 V
Current	0.23 A	0.22 A
Power		0.21 W

Cell Temperature Properties*

Voltage	%/°C	-0.187		
Current	%/°C	+0.084		
Power	%/°C	-0.095		
*Note: Percent change per °C from 25 °C				

Single Cell Physical Properties

Dimensions

50x19.6 mm bare, 50x17.1 mm shingled

Thickness and Weight

 $110 \pm 10 \, \mu m$, 180 mg

Minimum Bend Radius

2 cm

System Properties

Encapsulation (weight in g/m²)

None (237) PET (320)

Ultra Barrier (889)

Power Density

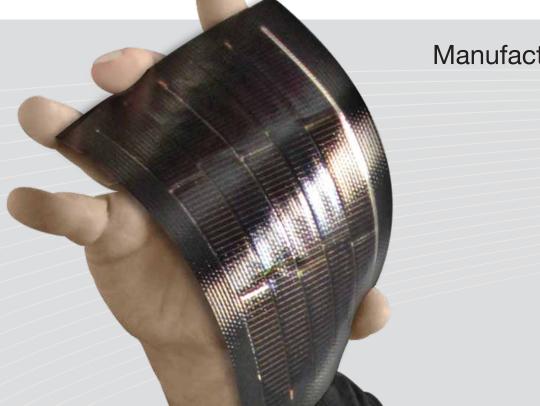
Outdoors (250 W/m²), Indoors (18 µW/cm²)

Ribbon Properties

Copper C110 w/ SnAg coating

Thickness and Width

95 µm, 5 mm



Manufacturing Process

MOCVD

Semiconducting PV

material deposited on

the wafer

Reuse

Wafer surface is cleaned to a like-new finish

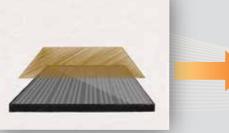


PVD

Metal coating added to create the back side electrical contact

Laminate

Polymer sheet attached for mechanical support



ELO

PV film lifted from wafer substrate by chemical etch

WAFER



FILM

Front Cell

Patterned metal deposits form front side electrical contacts



Separation

Films laser cut into individual PV cells



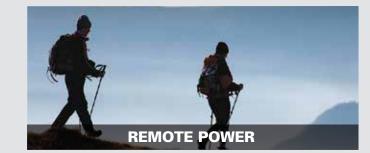
Matrix Cells assembled into arrays fitted to finished product



Fly All Day

Endurance is Everything.

For small, unmanned systems, increased endurance means less risk of damage to the aircraft and the ability to cover more ground. Alta Device's AnyLight™ power technology gives you as much as 5X more daytime endurance, and at one gram per watt of power, has virtually no impact on aerodynamics.



Take It With You

A Mobile Life Needs Mobile Power.

Alta Device's AnyLight[™] power technology is thin, flexible and lightweight yet generates enough power to charge your electronics while on the move. The high power-to- weight ratio makes it ideal for all remote power applications.



Eliminate Batteries

Big Data Starts with Small Sensors.

Give your critical sensors up to 5X more power wth Alta Device's AnyLight™ power technology. Our thin, flexible, and lightweight cells can be integrated into sensors for home, building, or factory automation.



Stay Charged

Free Yourself from the Cord.

A mobile device using Alta Device's AnyLight[™] power technology can capture light and convert it to extra battery life throughout the day. Just 10 minutes of sunlight on a typical smartphone gives you enough charge for a 15-minute phone call.



Extend Range

Harness the Power of the Sun.

Most cars are exposed to the sun all day. With Alta Device's AnyLight™ power technology, that sunlight can be used to charge your battery, extend your range, and cool your car throughout the day.



Wear It Longer

Your Wearable Device Should Stay Worn.

A wearable device is only useful when it's worn. With Alta's AnyLight™ power technology, your device can stay on your wrist longer and can completely recharge itself with only 30 minutes of exposure to sunlight.



www.altadevices.com

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