

Spectrolab CPV Products

Russ Jones

SPECTROLAB

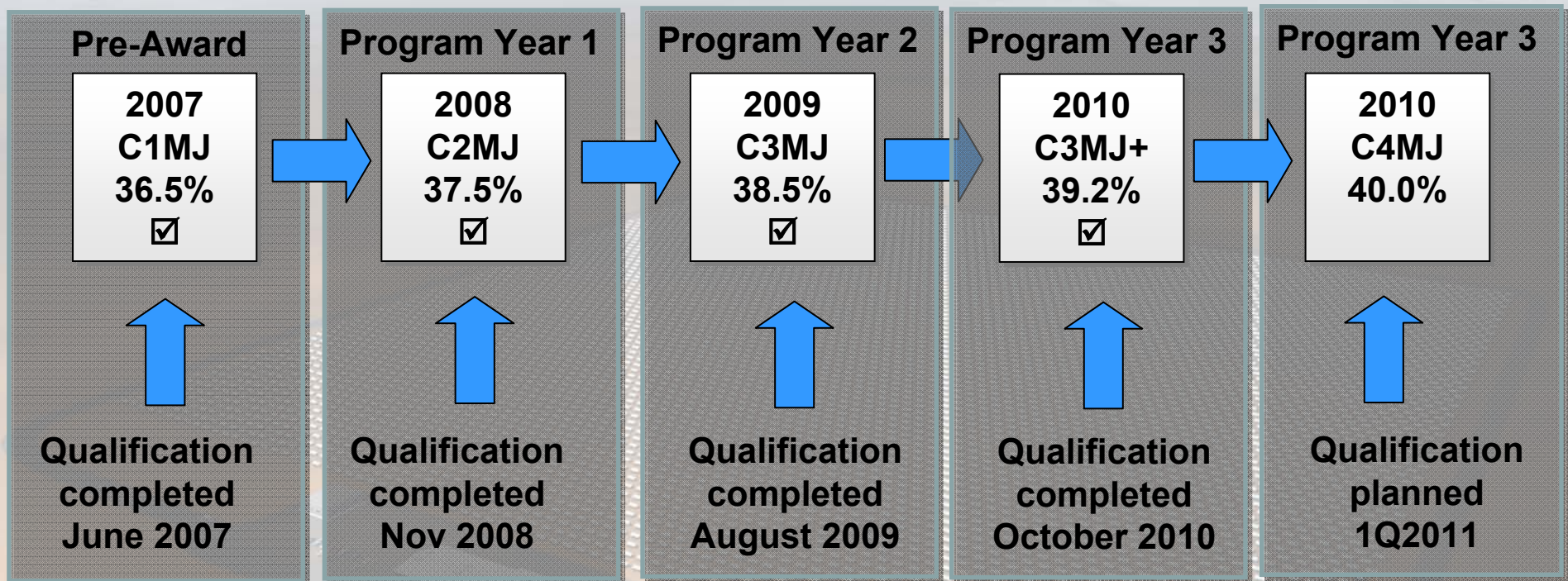
A BOEING COMPANY

Spectrolab CPV Product Generations

Space & Intelligence Systems | Spectrolab



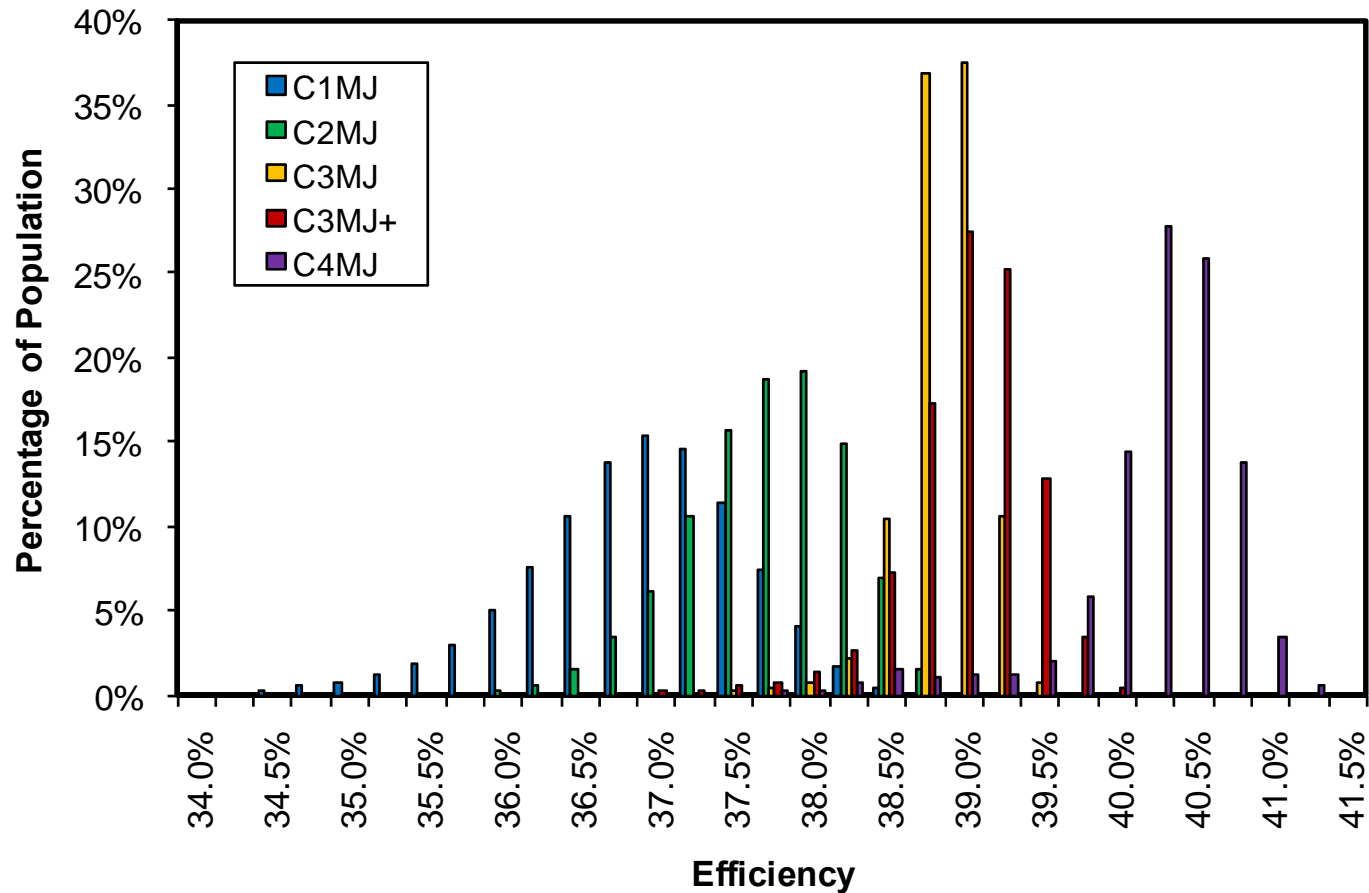
Spectrolab — the world leader in multi-junction cell manufacturing — is transforming record-breaking technology into production reality ...



... Addressing tomorrow's energy challenges with powerful solutions today.

Production Efficiency Distributions

Space & Intelligence Systems | Spectrolab



**Efficiency improvement in successive generations of MJ cells
(data as of Feb 25, 2011)**

Spectrolab CPV Product Formats

Space & Intelligence Systems | Spectrolab



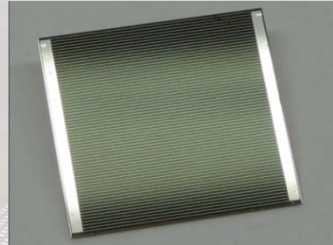
Volume Production

Processed Wafers



- 100% tested
- Customer pay only for the parts that meet inspection criteria
- Supplied with cell performance map

Bare Cells

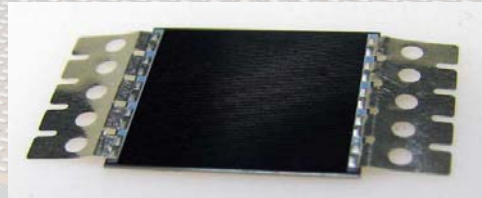


- 100% tested
- Supplied sorted and binned in waffle trays

Prototyping Support

Cells with Welded Interconnects

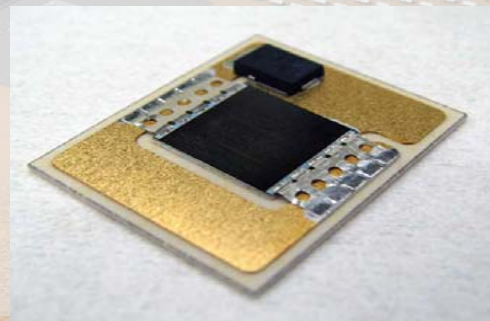
(For CDO-100 cells only)



- High reliability, ultra-low series resistance silver interconnect for easy prototype assembly

Concentrator Cell Assemblies (CCAs)

(For CDO-100 cells only)



- Integrated bypass diode for reverse current protection
- Alumina substrate with direct-bonded copper electrical traces

Standard CPV Products and Availability

Space & Intelligence Systems | Spectrolab



Product	Description ☀	Availability ☀
046191 ("CDO-100")	1.0 x 1.0 cm aperture area. Dual Ohmic Busbars	Available in Both C3MJ+ and C4MJ . Bare Cell in Waffle Tray
046167 ("CDO-086")	0.93 x 0.93 cm aperture area. Dual Ohmic Busbars	Available in C3MJ+ , C4MJ . Processed wafers Bare Cell in Waffle Tray
046192 ("CDO-076")	0.88 x 0.86 cm aperture area. Dual Ohmic Busbars	Available in C3MJ+ , C4MJ . Processed wafers Bare Cell in Waffle Tray
046268 ("CDO-064")	0.80 x 0.80 cm aperture area. Dual Ohmic Busbars	Available in C4MJ Only. Processed wafers.
046183 ("CDO-049")	0.70 x 0.70 cm aperture area. Dual Ohmic Busbars	Available in C4MJ Only. Bare Cell in Waffle Tray
046193 ("CDO-030")	0.55 x 0.55 cm aperture area. Dual Ohmic Busbars	Available in C3MJ+ , C4MJ . Processed wafer Bare Cell in Waffle Tray

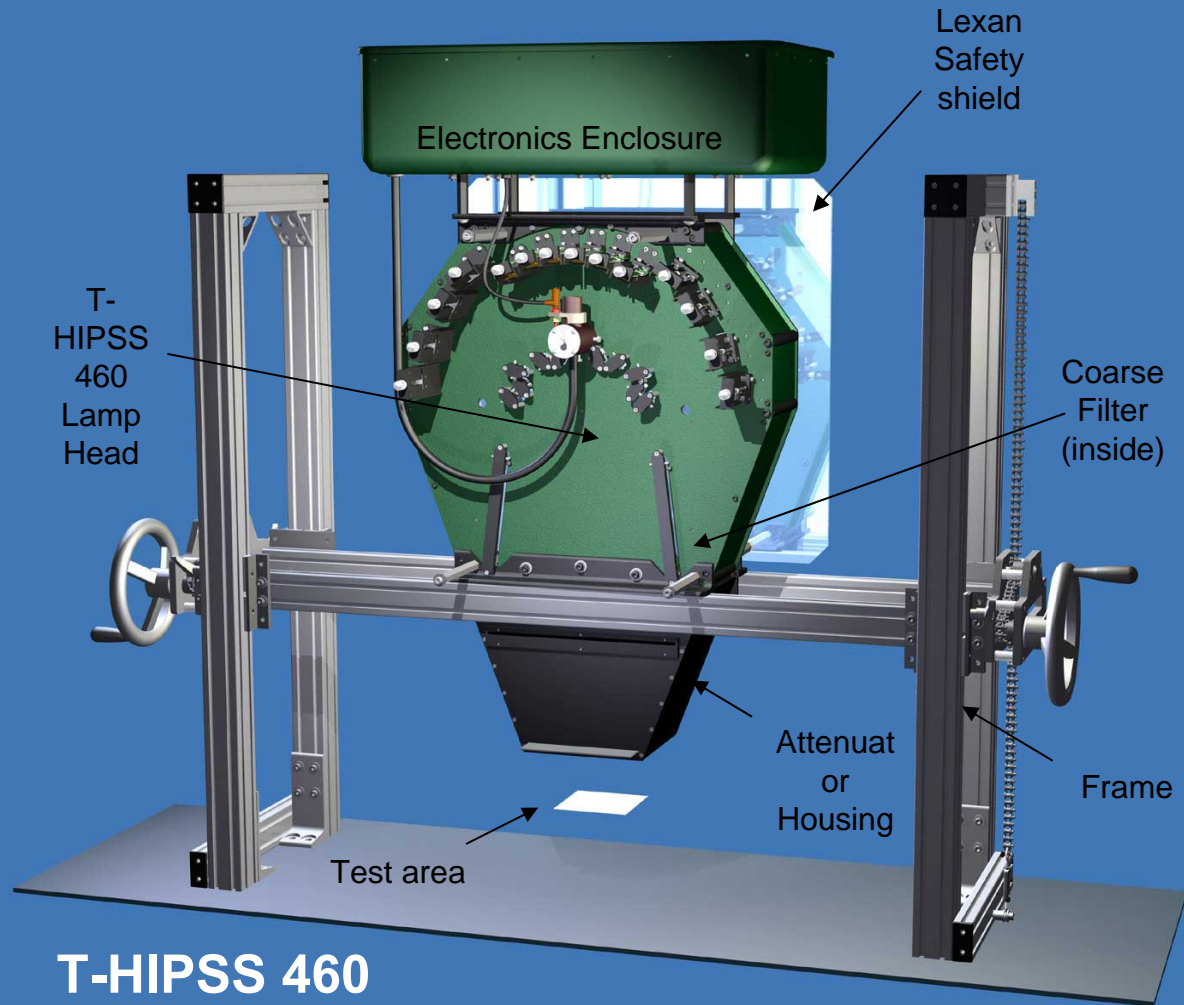
- ☀ **Cell sizes can be designed to customer specifications on request**
- ☀ **Parts can be made available in other formats on request**
- ☀ **Contact us for more information or a quote at info@spectrolab.com**

Spectrolab Illumination Products for CPV Test

Space & Intelligence Systems | Spectrolab

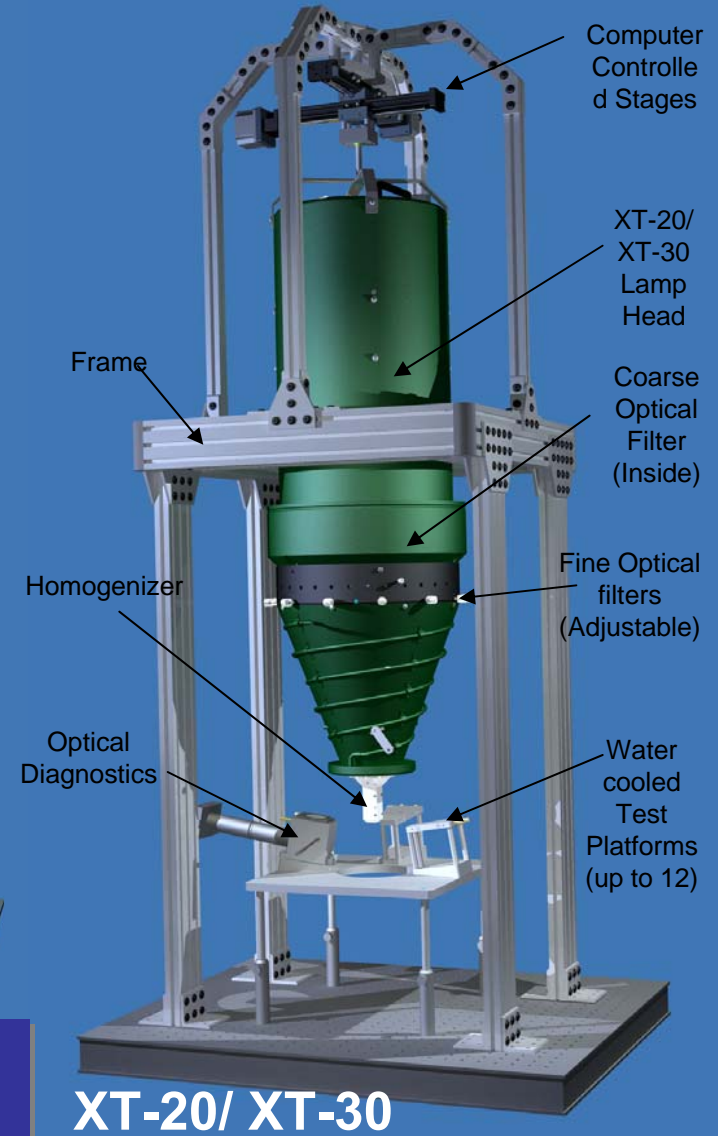


© 2011 Spectrolab, Inc. A Boeing Company. All Rights reserved.



T-HIPSS 460

... Enabling high accuracy flash and continuous test of cells and subassemblies over a wide range of intensities



XT-20/ XT-30