

SEMI PV4-0311

SPECIFICATION FOR RANGE OF 5th GENERATION SUBSTRATE SIZES FOR THIN FILM PHOTOVOLTAIC APPLICATIONS

This Standard was technically approved by the Photovoltaic Global Technical Committee. This edition was approved for publication by the global Audits and Reviews Subcommittee on February 3, 2011. Available at www.semiviews.org and www.semi.org in March 2011; originally published July 2010.

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1 Purpose

1.1 Purpose of this Standard is to provide a range of substrate sizes to 5th generation substrate for thin film photovoltaic applications. 5th generation is a term typically quoted by LCD industry to define glass substrate size.

1.2 Purpose of this Standard is not to unify substrate size for thin film photovoltaic applications but to provide a range of substrate sizes for equipment applicable to 5th generation substrate which has large population.

1.3 Expected effect of this Standard is to reduce equipment (including AMHS) cost by preventing modification within a group of substrate sizes and to make wider opportunity of equipment selection by providing common allowance of substrate size.

2 Scope

2.1 The specification in this Standard is to define range of substrate sizes for thin film photovoltaic application of 5th generation.

2.2 The substrate sizes in this Standard are width, length and their tolerances.

2.3 This Standard does not address substrate size of monocrystal or multicrystal photovoltaic applications.

2.4 This Standard does not cover edge treatment, weight, material or orientation for transfer.

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3 Limitations

3.1 This Standard does not purport to define dimension of final product as a photovoltaic module.

3.2 This Standard does not purport to define substrate size for non-5th generation applications.

4 Referenced Standards and Documents

4.1 None.

5 Terminology

5.1 *Abbreviations and Acronyms*

5.1.1 None.

5.2 *Definitions*

5.2.1 *5th generation* — a term quoted as typically used at LCD industry to define glass substrate size.

6 Requirements

6.1 *Substrate Width and Length* — Width and length of substrate are defined with some range by $x1$ and $y1$ for their centric values, and $x2$ and $y2$ for their tolerances.

NOTE 1: Since orientation of substrate is not defined in this Standard, width/length can be longer side or shorter side of the rectangle.

NOTE 2: Sag of substrate is not reflected to the values defined in this section. Measurement is expected to be performed on a common flat condition.

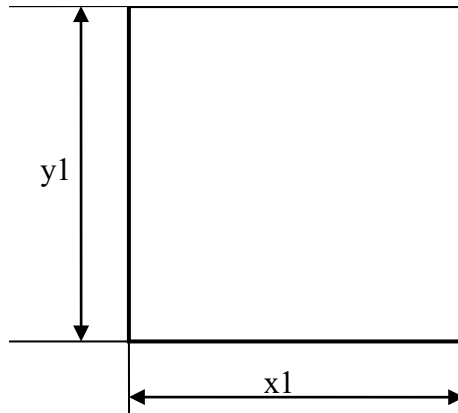


Figure 1
5th Generation Substrate Size of Thin Film Photovoltaic Application

Table 1 5th Generation Substrate Size of Thin Film Photovoltaic Application

<i>Symbol</i>	<i>Items</i>	<i>Value Specified</i>
$x1$	Centric value of width	1000 mm minimum, 1200 mm maximum
$x2$	Tolerance of width	± 1.0 mm from centric value
$y1$	Centric value of length	1200 mm minimum, 1500 mm maximum
$y2$	Tolerance of length	± 1.0 mm from centric value

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