



非受控文件

Specification of 182.2*183.75mm
mono 16BB TOPCON Bifacial
Half-cut Pattern Solar Cell
(182.2*183.75 ϕ 256)

Doc.No.: LW-M10-BiFi-2082

Revision No.: A

Prepared Dept: Process Department

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Revision Record

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Revision	Modification page number	Revised content	Prepared by	Revision Date
A	All	First Edition	LIUQIANG	2024.10.21
非受控文件				



Lightway Energy Technology Co., Limited

Title: Product Specification Doc.No.: LW-M10-BiFi-2082 Revision No.: A

Product Specification	Product Name	LWM16BB-BiFi-SE-256
	Document Name	Specification of 182.2*183.75 BiFi 16BB Solar Cell
	Document Number	LW-M10-BiFi-2082
	Revision Number	A

1.0 Range of Application

This specification is suitable for Lightway Solar 182.2*183.75mm mono 16BB TOPCON Bifacial solar cells and builds up the character and working condition of solar cells.

2.0 Product List

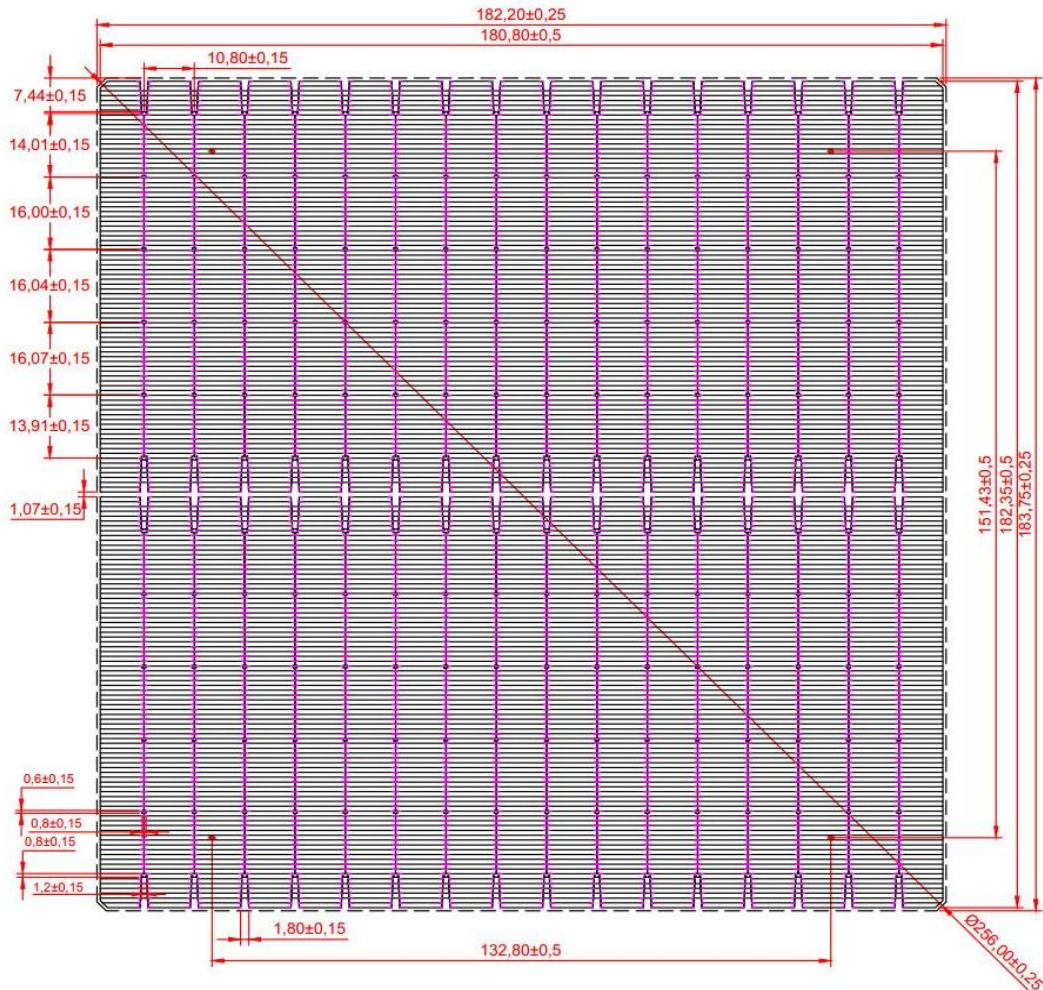
Silicon type	Size	Solar cell thickness
N-Type mono-crystalline	182.2*183.75±0.25Φ256mm	130±13μm

2.1 Cell Product Number: LWM16BBNBiFi256

3.1 Solar Cell Structure

3.1.1 Front electrode pattern

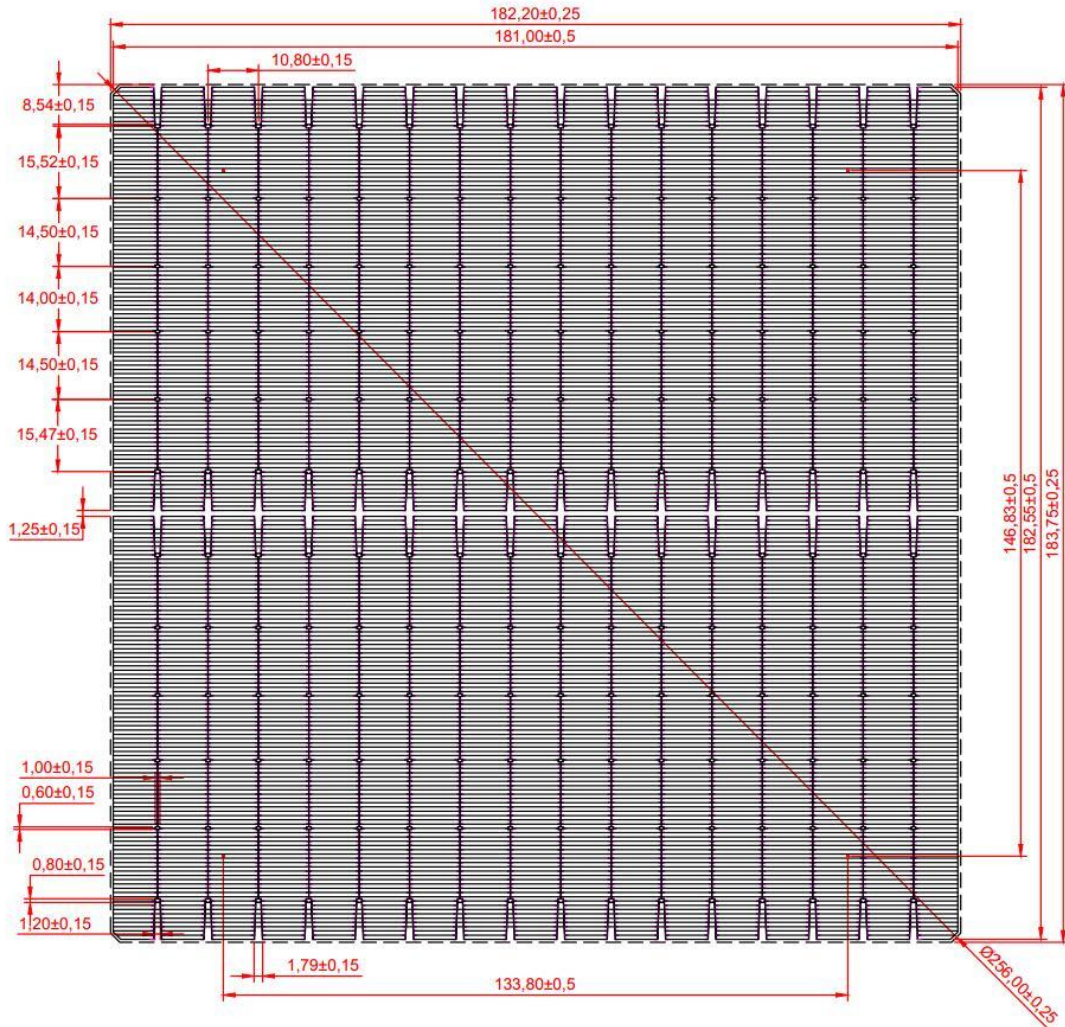
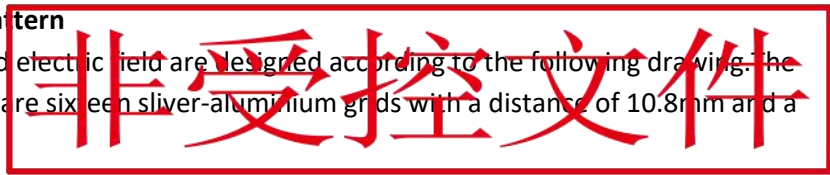
The positive electrode is designed according to the following drawing, the main grid of solar cell consists of sixteen busbar with a spacing of 10.8mm and a width of 0.05mm.





3.1.2 Back electrode pattern

The back electrodes and electric field are designed according to the following drawing. The back grids of solar cells are sixteen silver-aluminum grids with a distance of 10.8mm and a width 0.05mm.



Parameter Items		Spec.	Tolerance	Unit	
Front side	A	Finger quantity	172	N/A	Line
	B	Width of busbar	0.05	±0.15	mm
	C	Distance between busbars	10.8	±0.15	mm
Back side	A	Finger quantity	200	N/A	Line
	B	Width of busbar	0.05	±0.15	mm
	C	Distance between busbars	10.8	±0.15	mm



3.2 Electrical Performance

3.2.1 Front Efficiency

Eff(%)	Pmpp(W)	Ump(V)	Ipp(A)	Uoc(V)	Isc(A)
25.50%	8.54	0.627	13.613	0.729	13.917
25.40%	8.50	0.626	13.581	0.728	13.902
25.30%	8.47	0.625	13.552	0.727	13.895
25.20%	8.43	0.624	13.517	0.726	13.864
25.10%	8.40	0.623	13.485	0.725	13.837
25.00%	8.37	0.622	13.453	0.724	13.819
24.90%	8.33	0.621	13.421	0.723	13.785
24.80%	8.30	0.620	13.388	0.722	13.750
24.70%	8.27	0.619	13.356	0.721	13.715
24.60%	8.23	0.618	13.323	0.720	13.680
24.50%	8.20	0.617	13.291	0.719	13.645
24.40%	8.17	0.616	13.259	0.718	13.611
24.30%	8.13	0.615	13.227	0.717	13.576

3.2.2 Electrical Characteristic under STC Standard

a: Intensity: 1000W/m²

b: Spectrum: AM 1.5G

c: Temperature: 25°C

3.2.3 Temperature Coefficients

Voc: -0.26 %/°C

Isc: +0.045 %/°C

Pm: -0.33 %/°C

3.2.4 Standard solar cells origin

First-class: Fraunhofer



3.3 Visual inspection

3.3.1 Sampling plan: According to GB/T2828.1-2012

3.3.2 Defect standard and sampling level: Major defect-Level III -QALO.5

3.3.3 Inspection Time: Not less than 800LUX,about 5 seconds

3.3.4 Color classification: A range of solar cell is divided into four grade,from Light Blue to Dark Blue based on solar cells visual standard(solar cell color sample)

4.0 Records

N/A

5.0 Attachments

N/A

Note:The specification can apply to Lightway Energy Technology Co.,Limited,Jiangsu Lightway Energy PV Technology Co.,Limited,Jiangxi Lightway Energy PV Technology Co.,Limited,Shenzhen Lightway Energy Technology Co.,Limited,Lightway Technology Development Limited and other related subordinate companies under Lightway Group.