CERTIFICATE OF COMPLIANCE

Certificate Number	20170411-E483644
Report Reference	E483644-20170410
Issue Date	2017-APRIL-11
Issued to:	Jiangsu Chiko Solar Co Ltd North Taihangshan Rd., Suyu District Suqian, Jiangsu 223800 CHINA
This is to certify that representative samples of	MOUNTING SYSTEMS, MOUNTING DEVICES, CLAMPING DEVICES AND GROUND LUGS FOR USE WITH PHOTOVOLTAIC MODULES AND PANELS Mounting Systems for Use with Photovoltaic Modules and Panels, Model CK-AR, CK-SO and CK-TR.
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 2703, Standard for Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for use with Flat-Plate Photovoltaic Modules and Panels, ULC/ORD C1703, Flat-Plate for Photovoltaic Modules and Panels
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Product Service

EU Type Examination Certificate

Certificate No: TPS-RED500229 i02

Certificate Holder: **Huawei Technologies Co., Ltd.**
Administration Building
Headquarters of Huawei Technologies Co., Ltd.
Bantian, Longgang District
518129 Shenzhen
PEOPLE'S REPUBLIC OF CHINA

Product Type: **Wireless LAN equipment**
Solar Inverter

Model(s): **SUN2000-6KTL-L1, SUN2000-5KTL-L1, SUN2000-4.6KTL-L1, SUN2000-4KTL-L1, SUN2000-3.68KTL-L1, SUN2000-3KTL-L1, SUN2000-2KTL-L1**

We, as Notified Body number 0123, have examined the technical documentation and supporting evidence for the above listed equipment and found it to comply with the requirements of Annex III Module B of Radio Equipment Directive 2014/53/EU in relation to the following essential requirements covered by the examination

Essential Requirements: Article 3.1 (a) in respect of Health and Safety
Article 3.1 (b) in respect to EMC
Article 3.2 in respect to the use of the Radio Spectrum

This is based upon examination of the following Technical Data file. Please refer to the Annex for further technical details.

Technical Documentation: SUN2000-5KTL-L1 (v) up1 RED TCF

Valid from: 2020-07-29

(Laurentiu Dan Miiler)

Total pages: Page 1 of 3

The certificate has been issued in accordance with the Certification Regulations of TÜV SÜD Product Service GmbH (Notified Body Number 0123) and constitutes page 1 of the combined Certificate and Annex.

The CE marking may be used on the equipment described above subject to the equipment meeting the compliance requirements of all applicable EU directives.

The conditions for the validity of this certificate are listed in the Annex.
For further details related to this certification please contact ps-zert@tuev-sued.de

Issued by TÜV SÜD Product Service under document number: RED1A 041829 4254 Rev. 00

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

TÜV®

Annex to
EU-Type Examination Certificate

1 Equipment Description

Equipment is a Solar Inverter supporting WLAN technology.

1.1 Models

	Model	Variant HW/SW Differences	HW Version	SW Version
Original	SUN2000-5KTL-L1	All models have the same technical construction including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction, with SOLAR INVERTER SUN2000-5KTL-L1. The differences among these models are only in the output power ratings and fan	V200	V200
Variant	SUN2000-4.6KTL-L1 SUN2000-4KTL-L1 SUN2000-3.68KTL-L1 SUN2000-3KTL-L1 SUN2000-2KTL-L1 SUN2000-6KTL-L1			

1.2 Supported Functions and Features

1.2.1 Non-radio features

d.c. Max. Input Voltage: 600VDC; d.c. Max. Input Current: 12.5A;

MPPT Voltage Range: 90VDC – 560VDC; Output Frequency: 50/60Hz

Output Voltage: 230V/240V for SUN2000-3.68KTL-L1, 220V/230V/240V for other models

1.2.2 Radio features

Radio	Features	Operating Spectrum / Power	
IEEE 802.11 – 2.4 GHz	b/g/n20/n40, Adaptive	2400-2483.5 MHz	17.77 dBm

1.3 Associated Parts

Model/Part Number	Description
N/A	N/A

2 Assessed Standards

Article 3.1(a)	Article 3.1(b)	Article 3.2
EN 62109-1:2010 EN 62109-2:2011 EN 50385:2017	EN 55011:2016 EN 62920:2017 EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007/A1:2011 EN 61000-6-4:2007/A1:2011 EN 301 489-1 V2.2.3 Draft EN 301 489-17 V3.2.0 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-3-11:2000 EN 61000-3-12:2011	EN 300 328 V2.1.1

Annex to EU-Type Examination Certificate

3 Technical Documentation

3.1 Technical Documentation

Technical documentation and supporting evidence were examined and found to comply with the EU-type examination requirements in conjunction with Annex V requirements of the directive.

3.2 Declarations

Declaration of Conformity of SUN2000-5KTL-L1(v) up1 for RED, draft	Dated	2020-07-22
Declaration of multiple model difference up1	Dated	2020-07-10
Modification description for SUN2000-5KTL-L1(v) up1	Dated	2020-07-22

3.3 Strategic Documentation

Risk Assessment Letter for SUN2000-5KTL-L1(v) up1 for RED	Issued	2020-07-22
Justification of Conformity of SUN2000-5KTL-L1(v) up1 for RED	Modified	2020-07-29

3.4 Technical Compliance Documentation

3.4.1 Article 3.1(a)

083-52008202-100 part 1 of 2	Issued	2020-07-25
083-52008202-100 part 2 of 2	Issued	2020-07-25
SYBH(R-EMF)06535247-1	Issued	2020-05-25

3.4.2 Article 3.1(b)

68.760.20.0257.02	Issued	2020-07-22

3.4.3 Article 3.2

SZEM200400223301	Issued	2020-04-15

4 Additional Information

None

5 Conditions of Validity

None

Signature: _____ Date: 2020-07-29

On behalf of TÜV SÜD Product Service

CERTIFICATE OF COMPLIANCE

Certificate Number	20170828-E483644
Report Reference	E483644-20170828
Issue Date	2017-August-28

Issued to: Jiangsu Chiko Solar Co Ltd
North Taihangshan Rd.
Suyu District
Suqian
Jiangsu 223800 CHINA

This is to certify that representative samples of MOUNTING SYSTEMS, MOUNTING DEVICES, CLAMPING DEVICES AND GROUND LUGS FOR USE WITH PHOTOVOLTAIC MODULES AND PANELS

Mounting Systems for Use with Photovoltaic Modules and Panels, Model CK-BI.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 2703 Standard for Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for use with Flat-Plate Photovoltaic Modules and Panels, ULC/ORD C1703 Standard for Flat-Plate for Photovoltaic Modules and Panels, Including Amendment 1

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

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Bruce Mahrenholz, Director North American Certification Program

UL LLC

ISO/IEC 17065:2012
10-CPR-009

SGS COLOMBIA S.A.S.
CRS-F490101
ORDEN No. 4200-30881
CERTIFICADO No. CRS14285
ORDEN CERT. No. CO-CERT190701152-01
CERTIFICADO DE CONFORMIDAD DE PRODUCTO
Powertek S.A.S.
Carrera 32 No. 9 - 71, Bodega 5, Cali, Valle del Cauca, Colombia

Certifica que el producto identificado como Paneles Solares Fotovoltaicos / Celdas Monocristalinas Y Policristalinas, importados y/o fabricados y comercializados en Colombia por Powertek S.A.S., con referencias relacionadas en las siguientes páginas del presente documento, han sido evaluados de conformidad con:

Resolución 90708 del 30 Agosto de 2013 del Ministerio de Minas y Energía - por lo cual se expide el Reglamento Técnico de Instalaciones Eléctricas - RETIE.
Numeral 20.22 PANELES SOLARES FOTOVOLTAICOS

Estos productos han sido sometidos a toma de muestras, inspección, ejecución de pruebas de laboratorio y evaluación del sistema de gestión de calidad del fabricante de acuerdo con el esquema de certificación 5 de la norma ISO/IEC 17067:2013.

Resultados obtenidos: CONFORME

Autorizado por:

SGS COLOMBIA S.A.S.

Camilo Ramirez
SGS Colombia S.A.S.
Carrera 100 No. 25C-11, Bodega 3
Bogotá D.C., Colombia

Fecha de Emisión: 2018-12-12
Fecha de Vencimiento: 2021-12-11
Versión 1
Sublicencia emitida desde 2019-07-19

La vigencia de la presente sublicencia está ligada al certificado origen CRS12988

SGS COLOMBIA S.A.S.
CRS-F490101
ORDEN No. 4200-30881
CERTIFICADO No. CRS14285
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CERTIFICADO DE CONFORMIDAD DE PRODUCTO
Powertek S.A.S.
Carrera 32 No. 9 - 71, Bodega 5, Cali, Valle del Cauca, Colombia
Paneles Solares Fotovoltaicos / Celdas Monocristalinas Y Policristalinas
Fabricadas por Hanwha Q CELLS (Qidong) Co., Ltd.
No.888 Linyang Road, Qidong Economic Development Zone, Qidong, Jiangsu, China

Referencia	Tensión Máxima (V)	Tensión En Circuito Abierto (V)	Corriente Máxima (A)	Corriente De Cortocircuito (A)	Potencia Máxima Del Modulo (W)	Clase De Aplicación
Q.POWER L-G5 335	1000	46,3	20A	9,4	335	Class A
Q.POWER L-G5 330	1000	46,1	20A	9,3	330	Class A
Q.POWER L-G5 325	1000	46	20A	9,2	325	Class A
Q.POWER L-G5 320	1000	45,8	20A	9,15	320	Class A
Q.POWER L-G5 315	1000	45,7	20A	9,11	315	Class A
Q.POWER L-G5.0.G 335	1500	46,3	20A	9,4	335	Class A
Q.POWER L-G5.0.G 330	1500	46,1	20A	9,3	330	Class A
Q.POWER L-G5.0.G 325	1500	46	20A	9,2	325	Class A
Q.POWER L-G5.0.G 320	1500	45,8	20A	9,15	320	Class A
Q.POWER L-G5.0.G 315	1500	45,7	20A	9,11	315	Class A
Q.POWER-G5 280	1000	38,5	20A	9,29	280	Class A
Q.POWER-G5 275	1000	38,3	20A	9,27	275	Class A
Q.POWER-G5 270	1000	38,1	20A	9,23	270	Class A
Q.POWER-G5 265	1000	38	20A	9,2	265	Class A
Q.POWER-G5 260	1000	37,7	20A	9,05	260	Class A
Q.POWER-G5.0.G 280	1500	38,5	20A	9,29	280	Class A
Q.POWER-G5.0.G 275	1500	38,3	20A	9,27	275	Class A
Q.POWER-G5.0.G 270	1500	38,1	20A	9,23	270	Class A
Q.POWER-G5.0.G 265	1500	38	20A	9,2	265	Class A
Q.POWER-G5.0.G 260	1500	37,7	20A	9,05	260	Class A
Q.PEAK L-G5 375	1000	48,74	20A	9,87	375	Class A
Q.PEAK L-G5 370	1000	48,45	20A	9,81	370	Class A
Q.PEAK L-G5 365	1000	48,16	20A	9,75	365	Class A
Q.PEAK L-G5 360	1000	47,87	20A	9,69	360	Class A
Q.PEAK L-G5 355	1000	47,58	20A	9,63	355	Class A

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Referencia	Tensión Máxima (V)	Tensión En Circuito Abierto (V)	Corriente Máxima (A)	Corriente De Cortocircuito (A)	Potencia Máxima Del Modulo (W)	Clase De Aplicación
Q.PEAK L-G5.0.G 375	1500	48,74	20A	9,87	375	Class A
Q.PEAK L-G5.0.G 370	1500	48,45	20A	9,81	370	Class A
Q.PEAK L-G5.0.G 365	1500	48,16	20A	9,75	365	Class A
Q.PEAK L-G5.0.G 360	1500	47,87	20A	9,69	360	Class A
Q.PEAK L-G5.0.G 355	1500	47,58	20A	9,63	355	Class A
Q.PEAK-G5 310	1000	40,44	20A	9,85	310	Class A
Q.PEAK-G5 305	1000	40,15	20A	9,78	305	Class A
Q.PEAK-G5 300	1000	39,87	20A	9,71	300	Class A
Q.PEAK-G5 295	1000	39,58	20A	9,64	295	Class A
Q.PEAK-G5.0.G 310	1500	40,44	20A	9,85	310	Class A
Q.PEAK-G5.0.G 305	1500	40,15	20A	9,78	305	Class A
Q.PEAK-G5.0.G 300	1500	39,87	20A	9,71	300	Class A
Q.PEAK-G5.0.G 295	1500	39,58	20A	9,64	295	Class A

*****FIN DEL DOCUMENTO*****

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