

Gamcorp (Melbourne) Pty Ltd A.C.N 141 076 904 A.B.N 73 015 060 240  
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Our Ref: 2680-1-F/A.A

28 March 2018

Shanghai Chiko Solar Technology Co., Ltd  
 No. 680 Xingwen Road  
 Jiading District, Shanghai  
 China 201815

### **PV Array Frame Engineering Certification**

#### **Installation of Chiko Roof Mount Fixed Tilt Array Frame System with CK-A007 Rails**

Gamcorp (Melbourne) Pty Ltd, being Structural Engineers within the meaning of Australian Building Regulations, have carried out a structural design check of Chiko Roof Mount Fixed Tilt Array Frame System installation within Australia. The design check has been based on the schematic drawings of the system and test report provided by Alpha Energy Pty Ltd.

Component	Part No
Chiko 007 Rail	CK-A007
Chiko Rail Fixing Nut	CK-A055-801
Chiko Rail Fixing Nut	CK-A057-801
Chiko End Panel Clamp	CK-A103-801
Chiko Inner Panel Clamp	CK-152-804
Chiko Fixed Tilt Kit Feet	CK-A212-801
Chiko Fixed Tilt Kit Feet Base	CK-A212-804
Chiko Fixed Tilt Kit Rear Leg	CK-BL-006

We find the Installation of Chiko Roof Mount Fixed Tilt Array Frame System for Australian use to be structurally sufficient based on the following conditions:

- Wind loads to AS/NZ1170.2:2011 Admt 4:2016
- Wind region A, B, C, D
- Wind terrain category 2 & 3
- Wind average recurrence interval of 500 years
- Maximum building height 20m
- The PV panel dimensions to be 2000mm x 1000mm
- Maximum weight of the PV panel and array frame to be 15 kg/m<sup>2</sup>
- Rails to be CK-A007
- Array frame members are AL/6005-T5 UNO
- Each PV panel to be installed using 2 rails minimum in all circumstances
- Installation of PV array to be done in accordance with the PV installation manual
- The certification **excludes** assessment of roof structure, fixing to roof and PV panels

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***Refer to attached summary table for interface spacing***

**NOTES:**

- **The recommended spacing nominated in this certification is based on the capacity of the array frame, not the array frame fixing to the roof, the roof structure and PV panel. It is the responsibility of the installer to adopt the most critical spacing.**
- **If any of the above conditions cannot be met, the structural engineer must be notified immediately.**

Construction is to be carried out strictly in accordance with the manufacturers instructions. This work was designed by Ali Askari in accordance with the provisions of Australian Building Regulations and in accordance with sound, widely accepted engineering principles.

Yours faithfully,  
Gamcorp (Melbourne) Pty Ltd



Jianzeng Geng

Principal Engineer

MIEAust CPEng NER 3108316

NT Registration: 239858ES

QLD Registration: 18455

VIC Registration: EC 39483

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