Product Information

Product Description:

SLS Printing uses selective CO_2 laser sintering technology which sinters plastic powders(ceramic or metal powders with binding agent) into solid cross-sections layer by layer until a three-dimensional part is built. Before making the parts, need to fill the build chamber with nitrogen and rise the chamber temperature. When the temperature is ready, a computer controlled CO_2 laser selectively fuses powdered materials by tracing cross-sections of the part on the surface of a powder bed and then a new coat of materiel is applied for the new layer. The working platform of the powder bed will go one layer down and then the roller will pave a new layer of the powder and the laser will selectively sinter the cross-sections of the parts. Repeat the process until the parts completed.

CARMANHAAS could offer customer Dynamic optical scanning system with High speed · High precision · High quality function.
Dynamic optical scanning system means front focusing optical system, achieves zooming by a single lens movement, which consists of a moving small lens and two focusing lenses. The front small lens expands the beam and the rear focusing lens focuses the beam. The use of the front focusing optical system, because the focal length can be elongated, thereby increasing the scanning area, is currently the best solution for large-format high-speed scanning. Generally used in large-format machining or changing working distance applications, such as large-format cutting, marking, welding, 3D printing, etc.

SLS Optical System in China

Advantages:

(1)Galvanometer Aperture□14mm□20mm□30mm;

(2)Large-format scanning processing, the format can reach 2000mmx2000mm, and ensure high consistency and high roundness of the focused spot;

(3)Large spot incidence, so that the finer the spot size is required;

(4)Advanced servo control algorithm and efficient photoelectric sensing positioning technology;

(5)Support XY2-100 international general agreement.

Additive Manufacturing China

Technical Parameters:

CO2 F-Theta Lenses

Part Description	Focal Length (mm)	Scan Field (mm)	Max Entrance Pupil (mm)	Working Distance(mm)	Mounting Thread
SL-10.6-250-360	360	250x250	14/20	352.9	M85x1
SL-10.6-300-430	430	300x300	14/20	414.7	M85x1
SL-10.6-400-565	565	400x400	14/20	536.5	M85x1

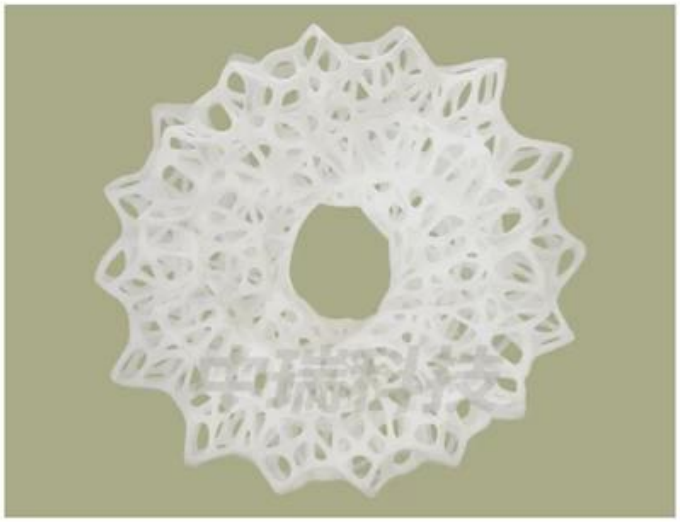
CO2 Beam Expander

Part Description	Expansion Ratio	Input CA (mm)	Output CA (mm)	Housing Dia (mm)	Housing Length(mm)	Mounting Thread
BE-10.6-D17:64.5-3x	3X	11	15	25	64.5	M22*0.75
BE-10.6-D17:70.5-4x	4X	11	15	25	70.5	M22*0.75
BE-10.6-D20:72-5x	5X	11	18	25	72	M22*0.75
BE-10.6-D27:75.7-6x	6X	11	25.5	32	75.7	M22*0.75
BE-10.6-D27:71-8x	8X	11	25.5	32	71	M22*0.75

CO2 Protective Window

Diameter(mm)	Thickness(mm)	Coating
80	3	AR/AR@10.6um
90	3	AR/AR@10.6um
110	3	AR/AR@10.6um
90*60	3	AR/AR@10.6um
90*70	3	AR/AR@10.6um

ZRPA12 (PA12 Nylon Powder)

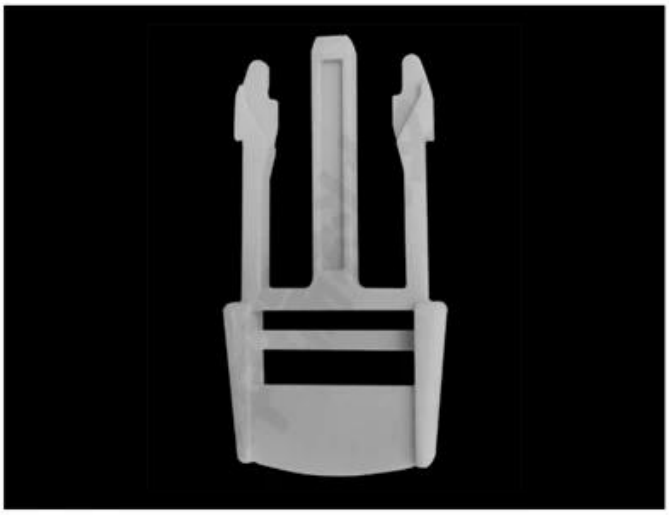


PHYSICAL CHARACTERISTICS	Grain Size: 50~55μm Shape: Spherical Apparent density: ≥0.40 g/cm³
THERMAL PROPERTY	Melting Point: 182~185℃ (10℃/min) Melting Enthalpy: ≥90 J/g HDT: 83.8℃ @1.8MPa / 146.1℃ @0.45MPa
MOLDING PERFORMANCE	Density: 0.97 g/cm³ Tensile Modulus: 1600 MPa Tensile Strength: 43 MPa Elongation at break: ≥15 % Un-notched Impact Strength: 20.7 KJ/m² Notched Impact Strength: 3.8 KJ/m² Bending Modulus: 1432 MPa Bending Strength: 57 MPa

GF100 (Glass Fiber Composite Nylon Powder)

PHYSICAL CHARACTERISTICS	Apparent density: ≥0.66 g/cm³
THERMAL PROPERTY	Melting Point: 183℃ (10℃/min) HDT: 89℃ @1.8MPa / 163℃ @0.45MPa
MOLDING PERFORMANCE	Density: 1.24 g/cm³ Tensile Modulus: 3498 MPa Tensile Strength: 43 MPa Elongation at break: 5 % Un-notched Impact Strength: 19.26 KJ/m² Notched Impact Strength: 4.11 KJ/m² Bending Modulus: 2413 MPa Bending Strength: 67 MPa

MF100 (Mineral Fiber Composite Nylon Powder)



PHYSICAL CHARACTERISTICS	Apparent density: ≥0.53 g/cm³
THERMAL PROPERTY	Melting Point: 180℃ (10℃/min) HDT: 125℃ @1.8MPa / 170℃ @0.45MPa
MOLDING PERFORMANCE	Density: 1.18 g/cm³ Tensile Modulus: 6128 MPa Tensile Strength: 50 MPa Elongation at break: 4.6 % Un-notched Impact Strength: 20.75 KJ/m² Notched Impact Strength: 5.58 KJ/m² Bending Modulus: 4630 MPa Bending Strength: 74 MPa

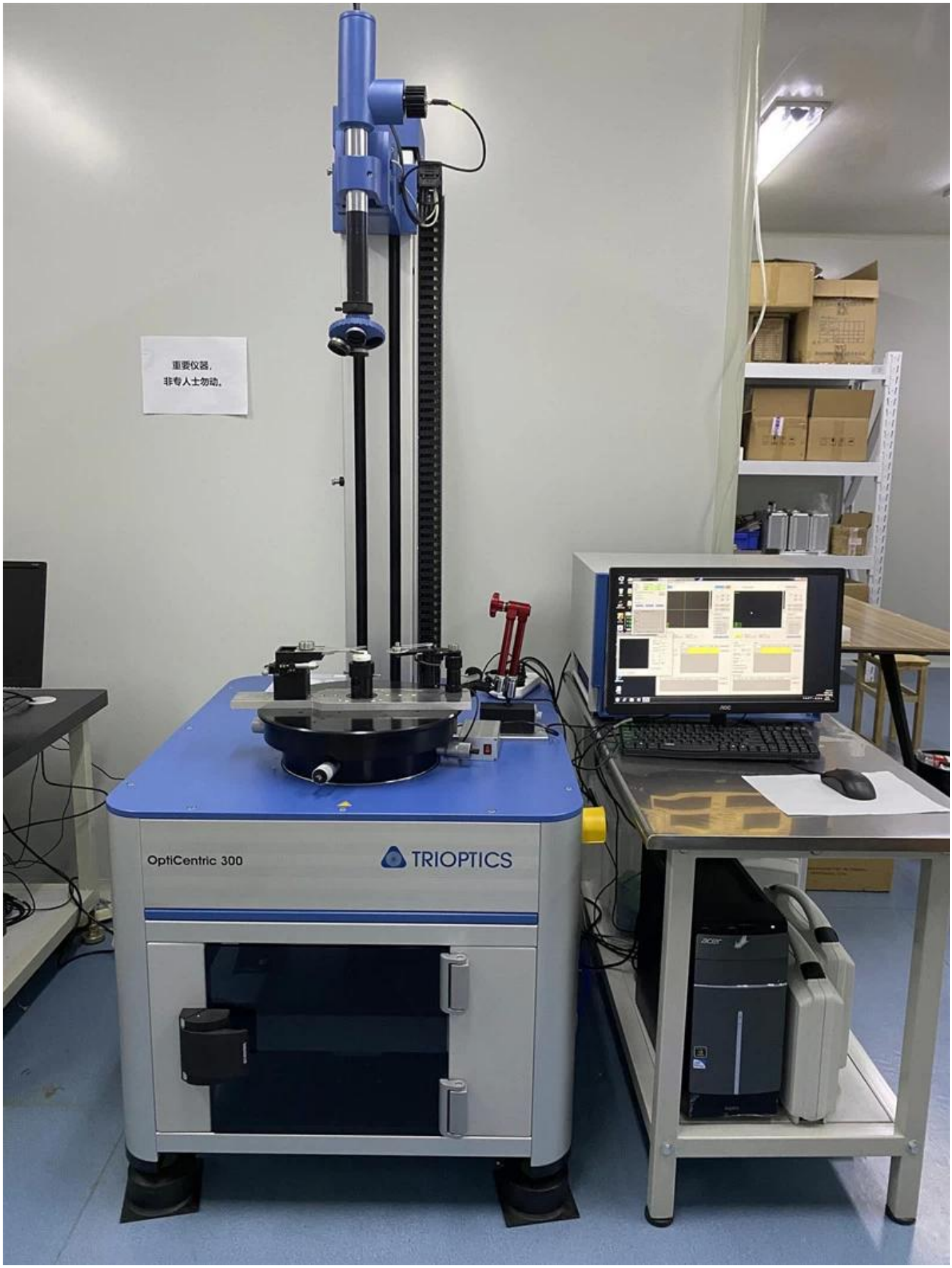
ZRTPU (Thermoplastic Polyurethanes Powder)

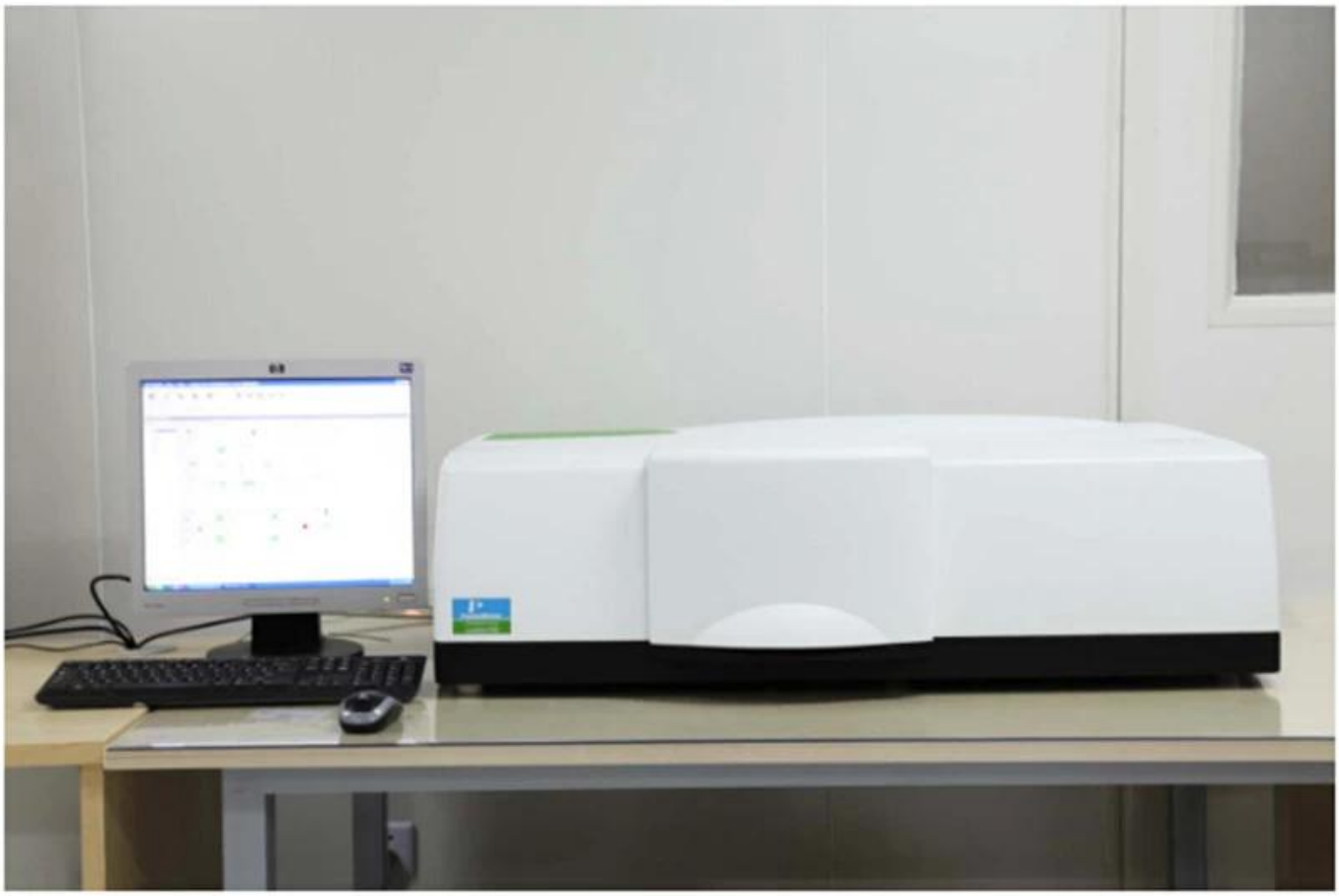
PHYSICAL CHARACTERISTICS	Grain Size: 60μm Shape: Spherical Apparent density: 0.47 g/cm³
THERMAL PROPERTY	Melting Point: 165℃ HDT Heat deflection temperature: -25℃
MOLDING PERFORMANCE	Density: 1.15 g/cm³ Tensile Modulus: 61 MPa Tensile Strength: 21 MPa Elongation at break: 310 % Tear strength: 101 N/mm Bending Modulus: 74 MPa Bending Strength: 3.3 MPa

Factory


CARMAN HAAS
企业愿景：致


verifire
zygo


重要仪器，
非专人士勿动。
OptiCentric 300
TRIOPTICS



PerkinElmer Lambda 950---Testing Transmission and Reflectivity

CERTIFICATE

ATIESTATION
CERTIFICATE OF MACHINERY AND LOW VOLTAGE DIRECTIVES

Technical file of the company mentioned below has been observed and audit has been completed successfully. 2006/42/EC Machinery Directive and 2014/ 35/EU Low Voltage Directive have been taken as references for these processes

Company Name	: **Carman HAAS Laser Technology (Suzhou) Co., Ltd.**
Company Address	: No 155, West Road Suhong, Suzhou Industrial Park, Suzhou City, Jiangsu , P.R.China
Related Directives and Annex	: **Low Voltage Directive 2014/35/EU** **Machinery Directive 2006/42/EC**
Related Standards	: **EN ISO 12100:2010; EN 60204-1:2006+A1:2009+AC:2010**
Product Name	: **Laser Marking Machine**
Report No and Date	: SD-90049717;09.08.2018
Product Brand/Model/Type	: LMCH-3W,LMCH-5W,LMCH-10W,LMCH-15W,LMCH-20W,LMCH-25W, LMCH-30W,LMCH-50W,LMCH-60W,LMCH-70W,LMCH-100W, LMCH-120W,LMCH-150W,LMCH-200W,LMCH-300W,LMCH-500W

Certificate Number	: **M.2018.201.N6073**
Initial Assessment Date	: 10.08.2018
Registration Date	: 13.08.2018
Reissue Date/No	:
Expiry Date	: **12.08.2023**

UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co.

The validity of the certificate can be checked through www.udem.com.tr. The CE mark shown on the right can only be used under the responsibility of the manufacturer with the completion of EC Declaration of Conformity for all the relevant Directives. This certificate remains the property of UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co. to whom it must be returned upon request. The above named firm must keep a copy of this certificate for 15 years from the registration of certificate. This certificate only covers the product(s) stated above and UDEM must be notified in case of any changes on the product(s)

Address: Mutlukent Mahallesi 2073 Sokak (Eski 93 Sokak) No:10 Çankaya – Ankara – TURKEY
Phone: +90 0312 443 03 90 **Fax:** +90 0312 443 03 76
E-mail: info@udemltd.com.tr www.udem.com.tr

ISO 9001

Certificate of Approval

Certificate No.: 10119Q12565R0M

Awarded to

Carman Haas Laser Technology(SuZhou) Co., Ltd.

Organization Code Certificate No. / Unified Social Credit Code:91320594MA1MF4EP56
Add.:No.155, West Road Suhong, Suzhou Industrial Park, Suzhou City, Jiangsu Province, P.R. China. 215000

Beijing ZhongLianTianRun Certification Center (ZLTR) certify that the Quality Management System of the above organization has been assessed and found to be in accordance with the requirements of the standard:

GB/T19001-2016 / ISO9001:2015

SCOPE OF CERTIFICATION/REGISTRATION

The Research and Development and Production of Optics Lenses (Except the limits of national laws and regulations.)

This certificate is made valid when used with certification scopes and the requirements of applicable laws and regulations. These requirements include, but are not limited to, administrative permits, scopes of qualifications, and CCC requirements.
Subject to operation conditions in requirements conformity with Quality Management System,
This Certificate is valid for a period of three years only,
Date from: Mar 13th,2019 To: Mar 12th,2022
The effectiveness of this Certificate shall be Validated by periodic surveillance audit of ZLTR for maintenance.
Information of this certificate can be found on the official website of Beijing Zhonglian Tianrun Certification center (http://www.zltr.com.cn)

SCC Accredited CB-MS OCSM Accredited CCN

ISSUED BY

Beijing Zhongliantianrun Certification Center
Room2603, 22nd Floor, 2nd Unit, Block 1, No.4 Yard, Qiyang Road, Chaoyang District, Beijing, P.R. China 100102

Information of this certificate can be found on the official website of Certification and Accreditation Administration of the People's Republic of China (http://www.cnca.gov.cn)

ISO 9001

Packing List

Return Policy:

Should returns be required:
Step 1) Contact us with this website email.
Step 2) Provide as much detail as possible about the problem you are having.
Step 3) Authorization to return the item will be issued.
Step 4) Return the item for the agreed replacement or refund.

Logistics:

(1)For Laser Optics order delivery,can be optional with DHL,UPS,FedEx,TNT,EMS,ets

(2)For Laser machine order delivery,can be optional with terms of EXWork FOB,CNF,CIF By Air or by Sea based on the buyer's forwarders or ours.

FAQ

Q1.Are you a manufacturer?

A1: Yes, we are professional and experienced manufacturer with our own molds and production lines.

Q2.How about quality of products?

A2: Our technicians and QC teams test the products one by one using aging line, professional devices and instruments to ensure the quality for all products.

Q3.How about price?

A3: We are a manufacturer and always offer our customers the most competitive prices.

Q4.How to place an order?

A4: Contact with online service, or sent email to us directly, we will reply to you with product price, specifications, packing etc. soon. Thank you.

Q5.May I send material to test marking performance?

A5: Yes! You are welcome to send material to test our superior quality and service.

Q6.Can I visit your factory?

A6: Yes, welcome to visit our factory at your convenient time.

Q7.How can I make OEM or ODM orders?

A7: We have different print processing for different OEM/ODM orders. Please contact us with online service or send email to us directly.

Q8. How should I pay for my orders?

A8: You can pay by T/T would be available for qualified bank and MOQ required for each order.