



产品手册

Product Manual

四川光恒通信技术有限公司
Sunstar Communication Technology Co., Ltd.

Company Profile

四川光恒通信技术有限公司

四川光恒通信技术有限公司2001年成立于成都，是长飞光纤控股的国家级高新技术企业、四川省“专精特新”中小企业。

公司深耕光通信行业二十余年，专注光电器件、高速光模块的研发、生产、销售与技术服务，具备精密机加工、光纤组件、COC、COB、TO-CAN、OSA/BOX光器件、SMT、光模块全流程制造能力。产品覆盖AI算力网络与数据中心、5.5G通信、工业互联网、智能电网、激光雷达等领域，市场遍及国内、北美、欧洲及东南亚，为全球算力网络与光通信产业提供高可靠核心光互联解决方案。

Founded in Chengdu in 2001, Sunstar Communication Technology Co., Ltd., controlled by YOFC, is a national high-tech enterprise and Sichuan-level SRDI SME.

With over 20 years in optical-communications, we provide R&D, manufacturing, sales and technical services for optoelectronic devices and high-speed optical modules. Our full-process capabilities cover precision machining, fiber assemblies, COC, COB, TO-CAN, OSA/BOX components, SMT and finished optical modules. Our products serve AI computing power networks, data centers, 5.5G communications, industrial internet, smart power grids and LiDAR. We operate across China, North America, Europe and Southeast Asia, delivering highly-reliable core optical interconnection solutions worldwide.

光恒核心优势 (Sunstar Core Strengths)

1

在设计、生产与质量管控领域具备深厚专业积淀
(Deep Expertise in Design, Manufacturing & Quality Control)

2

客户为本，快速响应
(Customer Centric, Rapid Response)

3

20 余年产业链积淀
(20+ Years of Industrial-chain Integration)

4

适配量产，高可扩展、高灵活性
(High Scalability & Flexibility for Mass Production)

5

可靠供应链，准时交付
(Robust Supply Chain & On-Time Delivery)

6

优异性价比管控
(Optimized Cost Performance)

ELSFP

Features

- ◆ 100mW optical output power per channel
- ◆ Include 8 channels of Continuous Wave (CW) lasers with TEC
- ◆ 1310nm DFB Or CWDM
- ◆ Optical fiber type:PM-SM-125-8.3,MT/APC
- ◆ Power supply: 3.3V
- ◆ Electrical Interface: ELSFP Hot Pluggable Interface
- ◆ power consumption: 18W
- ◆ Polarization maintaining optical connector
- ◆ Operating case temperature 0~70 °C
- ◆ Management Interface:OIF-ELSFP-CMIS-0.8

Applications

- ◆ CPO
- ◆ NPO
- ◆ Alcomputing



800G DCI Solutions

- ◆ QSFP-DD AOC/SR8/DR8
- ◆ OSFP SR8 AOC/DR8
- ◆ OSFP 2*FR4

800G OSFP DR8

Features

- ◆ OSFP MSA and CMIS compliant
- ◆ 8x106.25Gbps (53.125GBd PAM4) electrical interface
- ◆ 8x106.25Gbps (53.125GBd PAM4) optics architecture
- ◆ Power consumption <16W
- ◆ Maximum link length of 500m G.652 SMF with KP-FEC
- ◆ Dual MPO-12 receptacles
- ◆ Operating case temperature 0°C to +70°C
- ◆ 3.3V power supply voltage



400G DCI Solutions

- ◆ OSFP SR4/AOC
- ◆ OSFP 112 SR4/AOC
- ◆ QSFP-DD FR4& ER4 LITE & ER4
- ◆ QSFP-DD SR4/SR8/AOC

400G QSFP-DD SR8

Features

- ◆ Up to 53.13Gb/s data rate per lane and 425Gb/s aggregate bit rate
- ◆ Maximum link length of 70m on OM3 MMF and 100m on OM4 MMF
- ◆ Hot pluggable QSFP-DD form factor
- ◆ Enabled by 850nm VCSEL array and PD array
- ◆ MPO-16 optical cable connection
- ◆ Operating case temperature 0°C~70°C
- ◆ 3.3V single power supply
- ◆ power dissipation <10W
- ◆ Compliant with CMIS V4.0
- ◆ Compliant with RoHS 2.0



400G QSFP-DD DR4/FR4

Features

- ◆ QSFP DD MSA and CMIS compliant
- ◆ Electrical interface: 8x53.125Gb/s(PAM4)
- ◆ Optical interface: 4x106.25Gb/s(PAM4)
- ◆ Power consumption <8W
- ◆ Maximum link length of 2Km G.652 SMF with KP-FEC
- ◆ Operating case temperature 0°C to +70°C
- ◆ 3.3V power supply voltage



400G QSFP112 DR4

Features

- ◆ Operating data rate up to 425Gb/s
- ◆ Maximum link length of 500m on G.652 SMF for 400G-BASE DR4 application
- ◆ Single APC MPO-12 receptacle
- ◆ Electrical interface: 4 x 106.25Gb/s(PAM4)
- ◆ Optical interface: 4x106.25Gb/s(PAM4)
- ◆ Hot Pluggable QSFP-112 form factor

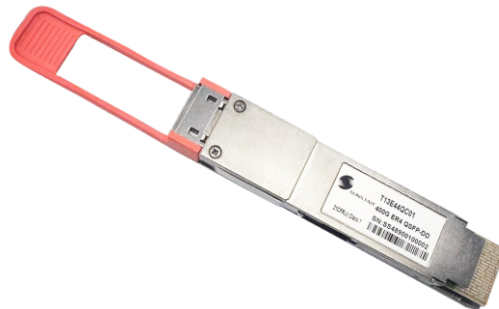


100G/400G Transport Solutions

400G QSFP-DD LR4, ER4

Features

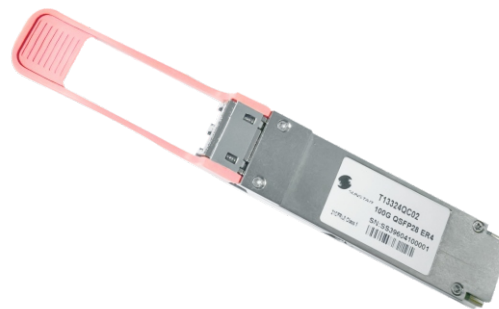
- ◆ Operating data rate up to 425Gb/s
- ◆ Maximum link length of 40km on G.652 SMF
- ◆ Duplex LC receptacle
- ◆ 4 nLWDM lanes MUX/DEMUX
- ◆ Electrical interface: 8x53.125Gb/s(PAM4)
- ◆ Optical interface: 4x106.25Gb/s(PAM4)
- ◆ QSFP-DD mechanical specification compliant with QSFP-DD MSA



100G QSFP28 LR4,ER4,ZR4

Features

- ◆ Supports 103.125Gb/s aggregate bit rate
- ◆ LAN WDM EML laser and PIN receiver with SOA
- ◆ Up to 80km reach for G.652 SMF
- ◆ BIDI LC optical receptacle
- ◆ 4-channel Clock and Data Recovery
- ◆ Operating case temperature 0°C to +70°C
- ◆ 3.3V power supply voltage



100G QSFP28 ZR4 BIDI

Features

- ◆ Supports 103.125Gb/s aggregate bit rate
- ◆ LAN WDM EML laser and PIN receiver with SOA
- ◆ Up to 80km reach for G.652 SMF
- ◆ BIDI LC optical receptacle
- ◆ 4-channel Clock and Data Recovery
- ◆ Operating case temperature 0°C to +70°C
- ◆ 3.3V power supply voltage



PON OLT & ONU Transceiver Solutions

50G PON OLT

Features

- ◆ QSFP-DD 50G Triple & Single Mode
- ◆ SFP-DD 50G Triple & Single Mode
- ◆ N1/C+
- ◆ C-temp,E-temp



50G PON ONU

Features

- ◆ QSFP-DD 50G Triple & Single Mode
- ◆ SFP-DD 50G Triple & Single Mode
- ◆ N1/C+
- ◆ C-temp,E-temp

25G PON OLT

Features

- ◆ SFP28 25Tx/25G Rx OLT
- ◆ SFP-DD 25G Combo OLT
- ◆ N1/N2
- ◆ C-temp,E-temp,I-temp



25G PON ONU

Features

- ◆ SFP28 25Tx/25G Rx ONU
- ◆ C-temp,E-temp

10G PON



10G EPON ONU PR30



Combo XGSPON OLT C+ E-temp



Combo XGSPON OLT C+ I-temp



Combo XGSPON OLT Class-D E-temp



GPON OLT I-temp C+++



XGSPON OLT E1 C-TEMP SFP+



XGSPON OLT E1 C-TEMP XFP



XGSPON OLT N2 I-TEMP XFP



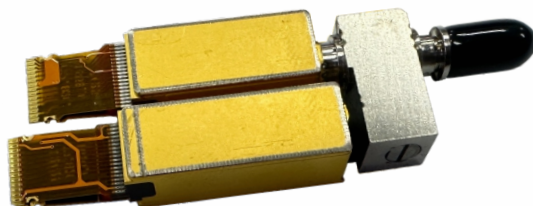
XGSPON ONU N2 I-temp SFP+



400G ER4 BOSA

Features

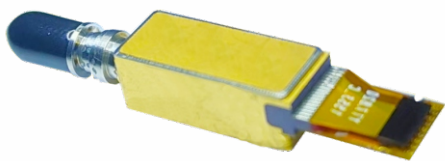
- ◆ Maximum link length of 40km SMF
- ◆ Operating temperature 0°C~70°C
- ◆ Single LC Receptacle; with FPC; single end 50Ω input and differential 100Ω output
- ◆ 4x56Gbaud cooled NLWDM EML and 4×56G SOA-PIN-TIA
- ◆ Compliant with 400G BASE ER4 specification
- ◆ Compliant with RoHS 2.0



400G ER4 TOSA

Features

- ◆ Maximum link length of 40km SMF
- ◆ LC Receptacle; with FPC; single end 50Ω input
- ◆ 4x53Gbaud cooled nLWDM EML
- ◆ Operating temperature 0 °C~70°C



400G ER4 ROSA

Features

- ◆ Maximum link length of 40km SMF
- ◆ LC Receptacle; with FPC; differential 100Ω output
- ◆ 4x53Gbaud SOA-PIN-TIA
- ◆ Operating temperature 0 °C~70°C



高速光器件High-speed OSA

100G PAM4 TOSA FR1/LR1

Features

- ◆ 53Gbaud operation
- ◆ 1310nm
- ◆ EML
- ◆ Operating temperature 0 °C~70°C

Applications

- ◆ Front-haul



100G PAM4 ROSA FR1/LR1

Features

- ◆ 53Gbaud operation
- ◆ 1310nm
- ◆ PIN-TIA
- ◆ Operating temperature 0 °C~70°C

Applications

- ◆ Front-haul



100G PAM4 BIDI

Features

- ◆ 53Gbaud operation
- ◆ 1270/1310&1330nm
- ◆ EML + PIN-TIA
- ◆ Operating temperature 0 °C~70°C

Applications

- ◆ Front-haul



100G ZR4 TOSA

Features

- ◆ 25GbpsX4λ O-band LWDM
- ◆ EML solution
- ◆ High optical power for 80km reach
- ◆ Operating temperature 0 °C~70°C

Applications

- ◆ Telecom



100G ZR4 ROSA

Features

- ◆ 25GbpsX4λ O-band LWDM
- ◆ PIN-TIA+SOA solution
- ◆ High sensitivity for 80km reach
- ◆ Operating temperature 0 °C~70°C

Applications

- ◆ Telecom



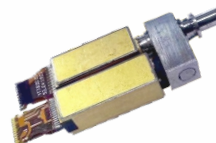
100G ZR4 BIDI

Features

- ◆ 25GbpsX8λ O-band LWDM
- ◆ EML Transmitter
- ◆ PIN-TIA+SOA Receiver
- ◆ 80km Reach
- ◆ Operating temperature 0 °C~70°C

Applications

- ◆ Telecom



LiDAR TOSA

Features

- ◆ High output power
- ◆ PMF pigtail, High PER
- ◆ Eye safety 1550nm WL

Applications

- ◆ Transmitter seed



LiDAR ROSA

Features

- ◆ PD/APD detector with low dark current
- ◆ SMF/MMF, receptacle/pigtail type
- ◆ 980-1650nm Operation
- ◆ High responsivity

Applications

- ◆ ToF pulse



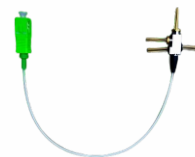
XGS PON Combo ONU OSA

Features

- ◆ I-temp operation
- ◆ 1577nm, 10Gbps, APD-TIA
- ◆ 1490nm, 2.5Gbps, APD-TIA
- ◆ 1310nm, 1.25Gbps, DFB
- ◆ 1270nm, 10Gbps, DFB

Applications

- ◆ FTTX



AOC 800G Connection jumper

Features

- ◆ $\varnothing 3.65$ 8Fiber PVC&OFNP+Woven PET net
- ◆ Mini MT Arcoating

Applications

- ◆ For 800G Silicon AOC



MPO-2MPO Connection jumper

Features

- ◆ $\varnothing 3.0$ PVC&LSZH AQUA MPO(F)-MPO(F)8&16

Applications

- ◆ For Datacenter Cable Connection



DR8 3FA-2MT

Features

- ◆ MT/APC(M12)-2FA(4)-1FA(8)

Applications

- ◆ For 800G-1.6T Transceiver



FR FA-2LC

Features

- ◆ FA-2LC SMF

Applications

- ◆ For 400G-800G Transceiver



Quad TOSA (MT/F/APC Fiber)

Features

- ◆ Center wavelength: 1310nm or 1306.01nm ~1314.02nm DWDM
- ◆ Optical fiber type: PM-1310; MT/F/APC
- ◆ 100mW or 150mW optical output power
- ◆ Operating case temperature 0°C -70°C
- ◆ Laser in Hermetic package

Applications

- ◆ Data center for 400G/800G DR
- ◆ External laser source for optical engine in co-packaging applications



AOC 8/16 Cores Jumpers

Features

- ◆ Φ3.0&3.5mm PVC&LSZH AQUA MT(F)-MT(F) 8&16

Applications

- ◆ For 100G-800G AOC



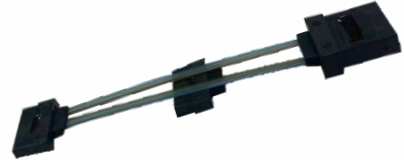
SR4 /SR8 Jumpers

Features

- ◆ MT/PC(M12)- MT/PC(F12) MT/PC(M16)-2MT/PC(F12)mini

Applications

- ◆ For 100G-800G Transceiver



DR4 /DR8 FA

Features

- ◆ MT/PC(M12)- 2FA(4) MT/PC(M16)-2FA(8)

Applications

- ◆ For 400G-1.6T Transceiver



MPO 8/16 Core Patchcords

Features

- ◆ Φ3.0&3.5mm PVC&LSZH AQUA MPO(F)-MPO(F) 8&16

Applications

- ◆ For Datacenter Cable Connection



1310nm双通道大功率光引擎

Features

- ◆ Center wavelength:1310nm
- ◆ Optical fiber type: PM-1310;LC Ferrule
- ◆ 150mW optical output power
- ◆ Operating case temperature 0°C -70°C

Applications

- ◆ Data center for 400G/800G DR
- ◆ External laser source for optical engine in co-packaging applications



小型化 O+E+C波段色散补偿模块

Features

- ◆ DWDM系统宽波段色散补偿
- ◆ 低插入损耗
- ◆ 低偏振模色散
- ◆ 小型化封装

Applications

- ◆ DWDM传输系统
- ◆ 5G前传系统O波段色散调节
- ◆ G.652标准单模光纤长途和城域通讯系统
- ◆ SDH传输系统
- ◆ CATV有线电视系统



泵浦光栅

Features

- ◆ 反射波长控制精度高,控制在 $\pm 0.25\text{nm}$
- ◆ 反射率控制精度高,控制在 $\pm 0.5\%$
- ◆ 3dB带宽控制精度高,控制在 $\pm 0.1\text{nm}$
- ◆ 旁瓣抑制比(SLSR)切趾后可高达-
- ◆ 25dB~-30dB

Applications

- ◆ 泵浦激光器
- ◆ 全光纤波分复用
- ◆ 光纤光栅滤波器
- ◆ 光纤光栅传感器
- ◆ EDFA



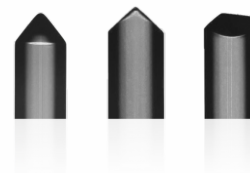
透镜光纤

Features

- ◆ 光纤端面呈圆柱面透镜或球面透镜
- ◆ 几何、光学指标可定制
- ◆ 高耦合效率
- ◆ 低损耗
- ◆ 可提供不同类型连接器
- ◆ 端面可镀膜、可金属化

Applications

- ◆ EDFA泵浦激光器
- ◆ 光纤传感
- ◆ 激光医疗
- ◆ 微照明



高功率光纤光栅

Features

- ◆ 915nm 泵浦光条件下温升系数小于 0.01°C/W
- ◆ 中心波长1060nm~1080nm, 1940nm可选
- ◆ 带宽范围 0.5nm-4nm可选
- ◆ 高低反光栅中心波长误差小于0.2nm
- ◆ 光纤类型以及光栅参数可根据客户需求定制

Applications

- ◆ 各领域的工业激光器
- ◆ 打标
- ◆ 焊接
- ◆ 切割
- ◆ 材料加工等



S波段掺铒光纤放大器

Features

- ◆ 高增益
- ◆ 低噪声
- ◆ S波段全覆盖
- ◆ 高输出功率

Applications

- ◆ S波段DWDM通信系统
- ◆ 全波段光纤通信系统
- ◆ S波段激光器

