



THE MARKET FOR OPTICS IN CHINA

JANUARY 2022



Table of Content

Table of Content.....	1
Abstract	5
Executive Summary.....	6
Demand for optics from Chinese Cloud companies was weaker than expected in 2021	6
Demand for optics from Chinese Service providers remains steady	8
Chapter 1: Telecommunication Service Providers in China	11
Broadband deployments in China.....	11
CSPs in China reduce their spending.....	14
Networking Infrastructure Projects in China.....	16
China Mobile continues to expand.....	21
China Telecom continues to grow but loses its leadership in wireline broadband.....	23
China Unicom is building a cloud business in partnership with leading ICPs.....	27
China Broadcasting Network Company to enter the 5G race	29
Chapter 2: Internet Content Providers in China.....	31
Chinese ICPs are growing faster	31
Chinese consumers are leading the world in the adoption of cloud services	32
Regulation of China’s online economy continued to tighten in 2021.....	39
Infrastructure investments of Chinese ICPs are still modest but are growing fast.....	40
datacenters in China	42
There is a hidden value in networks of smaller data centers.....	45
Venturing outside of China.....	45
China’s cyberspace remains inhospitable to foreigners.....	46

Increasing competition will drive adoption of 200G and 400G technology in China, but it is taking longer than expected.....	48
Chapter 3: Network and Datacenter Equipment Manufacturers.....	50
5G deployment has benefited china’s domestic equipment makers.....	50
China’s Data center investment growth is no longer a given.....	51
Dark clouds ahead for China’s ICPs	53
FiberHome sales rebounded in 2021 after Covid hit in 2020.....	54
H3C is doing well, powered by HP products.....	55
Huawei faces unprecedented challenges	57
Western sanctions take a bite out of Huawei’s growth.....	60
Inspur has quadrupled sales in four years	61
Lenovo’s datacenter group on a growth trend	63
ZTE reached new heights in 2021	64
Chapter 4: Chinese Manufacturers of Optical Components and Modules	66
Sales of Chinese optical component vendors exceeded \$4.4 billion in 2021	67
Innolight emerges as a new role model for the Chinese startups	70
Wuhan Optical Valley after COVID-19.....	70
Xian is attracting a new wave of investments	72
Chengdu is attracting more optical companies.....	73
The search for lower manufacturing cost continues	73
Laser chip manufacturing in China	75
The government PLAN for chip manufacturing in China.....	76
Is Silicon Photonics the best option for China to SURpass the west?.....	78
Chapter 5: Sales of Optical Components and Modules for deployments in China.....	79
Demand for Ethernet optics in China.....	80
forecast for deployments of DWDM modules in China	83

China will account for more than 50% of FTTx and wireless fronthaul optics sales in 2022-2026	85
Market for AOCs and EOMs in China	89
Appendix A: Profiles of selected Chinese Cloud companies.....	92
VNET Group.....	92
Alibaba	93
baidu.....	95
Bytedance	97
CEC Cloud	98
Huawei Cloud	99
JD Cloud & AI.....	100
Kingsoft Cloud.....	101
QingCloud	101
Sugon Cloud.....	102
Tencent	103
UCloud	107
Vipshop	107
Appendix B: Profiles of selected Chinese optical component and transceiver companies.	109
Accelink.....	109
ATOP Corporation.....	109
CIG	110
Cloudlight	110
Crealights	111
Eoptolink Technology Inc., Ltd	112
Gigalight	112
HG Genuine	113

HISENSE BROADBAND.....	114
Hi-Optel	115
Innolight.....	116
Linktel	117
O-NET	117
Sunstar Communication Technology	118
XGIGA (now Amphenol)	118
Xiamen San-U Optronics Co.,Ltd.....	119
YOFC	119

Abstract

Demand for optics from Chinese service providers surprised the industry in 2010-2016. It started with massive deployments of FTTx systems and continued with optical fronthaul in the access markets. Adoption of 10G PON and 25G fronthaul optics will sustain demand for access optics in 2022-2026. First deployments of 100/200G DWDM ports and ROADMs in core networks set high expectations for the scale of future projects.

Chinese Internet Content Providers (ICPs) started to upgrade their datacenters with 25G AOCs and 100GbE transceivers in 2018-2020 and plan to deploy 200GbE and 400GbE optics next. These deployments started in 2021, but we reduced our forecast for 2022-2026 because of uncertainty related to the future of Chinese Cloud companies.

This report discusses current and future infrastructure projects of Communication Service Providers (CSPs) and ICPs in China. It analyses the impact of these projects on the demand for optical networking equipment, optical modules and components. It includes profiles of the leading Chinese Cloud Companies and suppliers of optical components and modules.

The report discusses the history of optical component and module manufacturing in China and the analyses challenges ahead. It includes a companion spreadsheet containing a detailed 5-year history and 5-year forecast for shipments, pricing and sales of optical components deployed in China and compares those with the global market for these products.