Table of Contents

Table of Contents 1
Abstract 5
Executive Summary 6
Huawei expects slower growth ahead 6
The wall was built, the fiber deployed, what is next? 7
"The development of China's cyberspace is entering a fast lane" – Xi Jinping 8
Domestic suppliers will have more opportunities and more funding for innovation. 10
Potential economic slowdown in China. 11
Chapter 1: Telecommunication Service Providers in China 13
China has 1.2 billion 4G and more than 350 million FTTH subscribers 13
CSPs in China reduce their spending 15
Networking Infrastructure Projects in China 18
China Mobile continues to expand 24
China Telecom continues to grow but loses its leadership in wireline broadband 26
China Unicom is building a cloud business in partnership with leading ICPs 28
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 taking a lead in adoption of cloud services 32
Popping some of the internet bubbles in 2018 34
Infrastructure investments of Chinese ICPs are still modest but are growing fast. 37
Chinese ICPs are just starting to build mega datacenters 39
There is a hidden value in networks of smaller data centers. 41

Venturing outside of China 42
China's cyberspace remains inhospitable to foreigners. 43
Increasing competition will drive adoption of 100GbE and 400GbE technology in China 44
Alibaba 45
Baidu 47
Tencent 48
Chapter 3: Network and Datacenter Equipment Manufacturers 52
5G deployments in China should sustain the local equipment suppliers in 2019. 52
Cloud data centers offer a new market opportunity 53
FiberHome became part of CICT Group in 2018 56
H3C / Unisplendour is doing well, powered by HP products 57
Huawei is bracing for a challenging year in 2019 59
Inspur reports 99% growth in 2018 revenues 61
Lenovo reenergized its datacenter group 63
ZTE is back to business after a forced shutdown 65
Chapter 4: Chinese Manufacturers of Optical Components and Modules 67
Sales of Chinese optical component companies will exceed $3.1 billion in 2018 68
Innolight emerges as a new role model for the Chinese startups 69
Wuhan Optical Valley marked the 30 year anniversary in 2018. 69
Xian is attracting a new wave of investments 71
The search for lower manufacturing cost continues 71
Laser chip manufacturing is still mainly outside of China 72
The Chinese government plans to develop chip-making capability in China 73
Is Silicon Photonics the best option for China? 74
Accelink 75

HiSense Broadband 76
InnoLight 76
Chapter 5: Sales of Optical Components and Modules for deployments in China. 78
Demand for Ethernet optics in China will skyrocket in 2019-2023. 78
Sales of DWDM modules and components to China will remain flat in 2018-2023 81
China will account for more than 50% of FTTx and wireless fronthaul optics sales in 2019-2023. 82
Market for AOCs and EOMs in China 84
Appendix A: Profiles of selected Chinese Cloud companies 87
21Vianet 87
Ctrip 87
Face++ 89
JD.com 90
Ksyun 90
QingCloud 91
Vipshop 92
UCloud 93
Appendix B: Profiles of Selected Chinese Optical Component and Module Vendors 94
APAT 94
ATOP Corporation 94
Eoptolink Technology 95
Gigalight 96
HG Genuine 96
Hi-Optel. 97
Linktel 98
O-Net 98

Sunstar Communication Technology....................99

Superxon....................99

XGIGA....................100

Xiamen San-U Opto-electronic Technology....................100

Appendix C: Key Production Goals from Technology Development Roadmap of the China Optoelectronics Device Industry in 2018-2022....................102

Abstract

Demand for optics from Chinese service providers surprised the industry in 2010-2018. It started with massive deployments of FTTx systems and continued with optical fronthaul in the access markets. Adoption of 10G PON and 25G, 50G and 100G fronthaul optics will sustain demand for access optics in 2019-2023. First deployments of 100G DWDM technology in core networks set high expectations for the scale of future projects, which will include ROADMs as well. Chinese Internet companies started to upgrade their datacenters with 25G AOCs and 100GbE transceivers in 2018 and plan to start deploying 400GbE optics in 2020-2021.

This report discusses current and future infrastructure projects of Communication Service Providers (CSPs) and Internet Content Providers (ICPs) in China. It analyses the impact of these projects on the demand for optical networking equipment, optical modules and components. The report also discussed history of optical component and module manufacturing in China and analyses challenges ahead. It includes profiles of the leading Chinese CSPs, ICPs, equipment manufacturers and suppliers of optical component and modules. Appendix C to the report includes a translation of key production goals from the latest Roadmap of Optoelectronics Industry in China. The report includes a companion spreadsheet containing a detailed 8-year history and 5-year forecast for shipments, pricing and sales of optical components deployed in China.

