China Telecom 2000 Vol. 2: Fiber Optics Markets & Opportunities in China

China's fiber optics market has been growing at an annual rate of over 30 percent over the last several years. By the end of 1997, China has installed over 820,000 km of fiber optic cables, over 150,000 of which are national and provincial trunks. More than 10.6 million km of cabled fiber was installed by the end of 1997. Over the next several years the demand for optical fiber is projected to be over 4 million km each year, of which most will be imported. This offers

tremendous opportunities for foreign companies.

China is well on its way to build an 8-vertical and 8-horizontal national fiber optic network. In addition, China has deployed some of the most advanced fiber optic technologies in the world such as SDH/SONET, and WDM. With the formation of the new Ministry of Information Industry, China is poised to sustain its growth and will become one of the largest fiber optics market in the world.

Table of Contents

EXECUTIVE SUMMARY
COUNTRY BACKGROUND

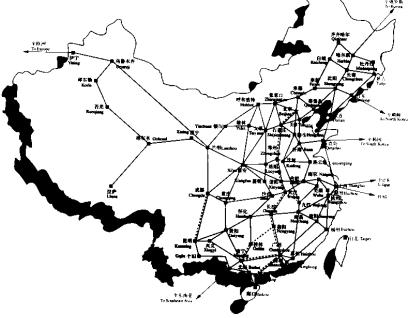
THE ORGANIZA-TIONAL STRUCTURE OF CHINA'S TELECOM INDUSTRY

Overview

The Organizational Structure before the Reorganization

The State Council
Commissions and Ministries
Ministry of Posts and
Telecommunications (MPT)
Ministry of Electronics

Fiber Optics Network in China



Industry (MEI)

Ministry of Radio, Film and Television (MRFT)

Ministry of Railways (MOR)
Ministry of Power (MOP)

Ministry of Foreign Trade and Economic Cooperation (MOFTEC)

State Radio Regulatory Commission (SRRC)

People's Liberation Army (PLA)

People's Bank of China

The Leading Group for Informatization under the State Council

China United Telecommunications Corp. (China Unicom)

Ji Tong and The Golden Projects

China Telecom Great Wall Mobile Communications Ltd.

The Organizational Structure after the Reorganization

The New State Council

29 Commissions and Ministries

The Key Ministries and Commissions Related to Telecom

The Super Ministry - Ministry of Information Industry (MII)

China Telecom - Can it Compete in the New Environment?

China Unicom - Where is its Position after the Reorganization?

Provincial PTAs - Are They Better Off or Worse Off

Tomorrow's CATV Industry in China

The Integration of Former MPT and MEI

Private Networks without the MOP

The PLA and its Great Wall CDMA Networks

TELECOMMUNICA-TIONS INFRASTRUC-TURE

Brief History

Recent Development and the 9th Five-Year Plan (1996-2000)

Objectives for 1998

The 9th Five-Year Plan (1996-2000)

Network Overview

Public Switched Telephone Network (PSTN)

Local Networks

Rural Networks

Data Networks

Private (Non-MPT) Networks

Railway Telecom Network

Ministry of Power Communications Network

China National Financial Communications Network

Earthquake Monitoring and Forecasting Communication Network

Space Industry Corporation's Communication Network

Meteorology Communications Network

Transmission Systems

Open Wire

Coaxial Cable

Microwave Radio Telecommunications

Digital Optical Fiber Links

The National Fiber Optic Cable Network

Asia-Europe Fiber Optic Cable Trunk Line

Submarine Fiber Optic Cables

China-Japan Cable

China-Korea Cable

China Southeast Asia Cable

FLAG

SEA-ME-WE 3

China-US Cable Network

Satellite Communications

Very Small Aperture Terminal (VSAT) Markets

FIBER OPTICS PROJECT IMPLEMENTATION AND PROCUREMENT

Structure of the Fiber Optics Industry

The National Level

China Telecom and PTAC

Provincial and Local Levels

Decentralization

Financing Problems

End Users

DEVELOPMENT OF CHINA'S FIBER OP-TICS SECTOR

Research & Development

Research Institutions

Domestic Manufacturing

Overview - The Production Centers

Optic Fiber Production

Optic Fiber Cable Production

Opto-electronic Components Production

Transceivers and Repeaters

Connectors

Test Equipment

Joint Ventures

Competitive Analysis of Major Joint Ventures

ANNUAL DEMAND AND MARKET FORE-CAST

The 9th Five-Year Plans

National Trunk Line Cable Installations

Provincial Cable Installations

Metropolitan Cable Installations

Campus and Enterprise Networks

Private Network Cable Installations

Cable TV Industry

China Unicom

Demand Forecast for Optic Fiber

Demand Forecast for Cables

Deployment of New SDH Systems

WDM in the National Trunks

MAJOR RECENT FIBER OPTICS PROJECTS AND CONTRACTS

CHINA FIBER OPTICS INDUSTRY CONTACT LIST.

Former MPT and Its Departments

Directorate General of Telecommunications/ China Telecom

Research Institutes

Former MEI Research Institutes and Companies

Local Manufacturers

Joint Ventures

HOT STUDIES		Chinese Provinces & Major Cities: Telecom Market Reports:	
☐ New! Dense Wavelenth Division Multiplexing (DWDM) System Component	\$2005	☐ Bejing, 1997	
☐ New! TTM: Telecom Test & Measurement Market Study		☐ Shanghai, 1997	
☐ Updated! WDM: Not Just For Long Distance Anymore		☐ Hunan, 1996	
☐ New! Premise Wiring: Market Study & Technology Assessment		☐ Shandong, 1996	
☐ Updated! ATM – The Dream Delayed?		☐ Guangdong, 1997	
New! Internet Telecommunications Market		☐ Jiangsu, 1996	
New! Brazil – A Major Telecommunications Market Opportunity		☐ Heilongjiang, 1996	\$995
New! Gigabit Ethernet or ATM		☐ Sichuan, 1996	
New! Asia Pacific Fiber Optics: Terrestrial Fiber Optic Network Developmen		☐ Submarine Fiber Optics Technology & Market Opportunities, 1996	\$2995
New! India Telecom 2000 Vol. 1: Telecom Policy, Regulations & Markets		□ ATM Market & Technology Assessment Study (1995)	
New! The Current Outlook for Fiber in Business and Residential Applications		☐ ATM-Enterprise & Public Network Opportunities (1994)	
New! China's Wireless Communications Market		☐ ATM-Product Directory (1996)	
New! China Telecommunications by Provinces		☐ Fiber Optics in European Telecommunications (1995)	
New! Wireless Local Loop		□ Optical Amplifiers (1994)	\$1995
New! ADSL: Copper Turning to Gold		☐ Access Markets & Technology (1993)	\$2495
The Market of Plastic Optical Fiber in Data Communications		ISDN RELATED STUDIES	
Impact of Fiber Optics & Digital Tech. on the Copper Wire Industry			
High-Speed Internet Access Technologies & Markets		□ Updated! ISDN Implementation in the U.S. (1997)	
☐ Figit-Speed internet Access recritologies & Markets		□ Updated! ISDN Penetration in Selected Countries (1997)	\$495
		FIBER OPTICS RELATED STUDIES	
Succeeding in China's Telecommunications Market The Support Structure for the European Superhighway			
11 1 9 7		☐ Active Optical Integrated circuits	
□ ISDN CPE: Market and Technology Trends		□ CATV and Fiber Optics	\$1995
		☐ FDDI-Market Study	\$19 95
Cellular and Paging Marketing Opportunities in China	\$2993	☐ Fiber Optic Connector Markets in North America	
/ideo Dialtone/Video-on-Demand: VDT-2000 Reports: UVolume 1, Market Overview, 1994	¢000 <i>E</i>	☐ Fiber Optic Market Opportunities in Metro Areas	\$1495
·		☐ Gigabit Networking Markets	
□ Volume 2, Servers & Desktop Converters, 1994 □ Volume 3, A Market Demand Assessment, 1995		☐ HDTV and Fiber Optics	
elecomPower-2000 reports:	\$2993	☐ High Speed Local Networks	\$2495
□ Volume 1, Market Overview, 1995	\$2405	☐ Impact of Fiber Optics and other Technologies	43.405
□ Volume 2, Technology and Equipment Suppliers, 1995		on the Copper Wire and Cable Industry	
□ Volume 3, Strategies, 1995		□ 1995 Local Telecommunications Competition	\$2995
□ Volume 4, Economics and Market Demand, 1995		TELECOMMUNICATIONS	
□ Volume 5, Policy, Regualtion, and Legislation, 1995			40005
China Telecom-2000 reports:	\$249J	☐ Automobile Navigation Systems in Japan	
□ Update! Vol. 1, Telecom Policy and Infrastructure, 11/97	\$2005	Cell Relay Markets	
□ Update! Vol. 2, Fiber Optic Market and Opportunities, 7/98		☐ Cost Comparison of Fiber Optics, Microwave, & Satellite	
□ Vol. 3, Switching Market and Opportunities, 1996		☐ Digital Video Compression	
□ Vol. 4, Wireless Communications, Market & Opportunities, 5/97		☐ Frame Relay Markets	
□ New! Vol. 5, Data Market and Opportunities, 1/98		□ Network Management Market	
□ New! Vol. 5, Dala Marker and Opportunities, 1746		SMDS Market	\$2,800
		0-323-1088 OR FAX: 617-734-8562	
☐ Please sendcopies of China Telecom 2000 Vol. 2: F	iber	Subtotal	
Optics Markets & Opportunities for \$2995		add 5% tax if purchased in Massachussetts	
 Send the reports checked above (payment enclosed) 		dad 5% lax ii porchased iii iviassachossens	
☐ Please send a free copy of the IGI product catalog		TOTAL AMOUNT ENCLOSED	
NameTitle		☐ Wire Transfer U.S. Dollars to Information Gatekeepers Bank Boston • Swift Address FNBBUS33 To: Information Gatekeepers Inc. • Account # 800 57194	Inc
Company			
Address		☐ Check enclosed	
CityState		□ Charge to my: □ MC □ VISA □ AMEX □ DISCOVE	
Postal CodeCountry		Card No	
TelFax		Cardholder Name	_
		Expires:Signature	_
INFORMATION GATEKEEPERS INC.		Checks must be paid in U.S. dollars & drawn on a U.S. bank.	



214 Harvard Ave Boston MA 02134 USA Toll-Free: 800-323-1088, Tel: 617-232-3111 Fax: 617-734-8562, E-Mail: igiboston@aol.com Web Page: http://www.igigroup.com

 Order Processing & Shipping: Allow 14 business days for order processing plus transit time from Boston, MA. If you need your shipment sooner, please telephone us to make special shipping arrangements. Additional charges may be billed on rush orders.

• Personal Orders and Orders from Outside the U.S. Must Be Accompanied by Complete Payment.

4-15-98