China Fiber Optic Network System

Fiber optic up-cycle approaches

China Fiber Optic Network System (CFONS) is the largest fiber optic patch cord producer in China with 21.4% market share. Through processing soft optical cables and ceramic ferrules, the company offers 100+ models of fiber optic patch cords to communication industry since "Network Access License for Telecommunications Equipment" (电信设备进网许可证) was granted in 2001. Fiber optic patch cords are devices consist of soft optical cables with each of their ends connected to one or more connectors for light signal transmission purpose. By end of 2011, production capacity of fiber optic patch cords was 12m sets a year, which contributed to 12.9m units self-produced for the year.

Investment summary

- Broadband and FTTX investment as part of 12th Five-year-plan; Sept draft out
- Fiber optic patch cords market leader with solid direct sales to 3 China telecos
- Aggressive expansion underway with net cash position after IPO
- Anticipating 13% and 40% YoY net profit growth in 2012F and 2014F
- Initiate BUY with target price at HK$1.80, representing 44.0% upside
- Target implied P/E and P/B valuation at 6.1x and 1.2x for FY12/12F

Broadband and FTTX investment as part of 12th Five-year-plan. According to 12th Five-year-plan released by MIIT in May this year, of which the draft is said to be submitted for final approval this month, infrastructure investment on information technology is targeted at RMB2,000b for 2011A to 2015F. Deducting RMB550b for 2011A to 2012F, average investment for the 2013F to 2015F is as much as RMB480b+ each year, significantly up from ~RMB300m in 2012F. In particular, the draft emphasized speeding up construction of backbone network, regional network as well as FTTX applications. In Sep draft, MIIT aims to have more than 250m broadband users by 2015F up from 150m by end of 2011; and internet access speed is targeted at 20MB and 4MB for urban and rural area respectively by that time. We expect China to see strong demand for fiber optic patch cords in short-to-medium term with high penetration and speed target for FTTX applications.

China market leader to expand capacity with strong balance sheet. In the past 3 years, CFONS earned 65% to 70% revenue directly from the 3 key telecom network operators in China, capturing 21.4% market share in China, compared to 9.0% by Sunsea (002313 CH) and 5.2% by Ceuturyman, a subsidiary acquired by TE Connectivity (TEL US). CFONS is working to expand its capacity from 9m sets a year in 2011 to 18m sets by end of 2012F partly with its IPO proceeds in 2H 2011. Under our conservative assumptions, CFONS will utilize 90% operating cash flow before working capital changes in one particular year for expansion of the following year, of which half goes to CAPEX and the other half serves as additional working capital. As such, we expect CFONS to maintain its net cash position while raising its capacity to 18m sets in 2012F and further to 22m sets in 2013F.

Attractive implied valuation with institution support – target price at HK$1.80. We value CFONS by a 2-stage discounted cash flow model. We have projection for the company up to 2017F and 2% terminal growth rate beyond 2017F with 17.5% discount rate on relatively high beta. Based on our target price at HK$1.80, implied P/E is 6.3x and 4.6x for FY12/12F and FY12/13F based on RMB287m and RMB395m net profit forecast respectively. On P/B valuation basis, our target price represents 1.2x and 1.0x for FY12/12F and FY12/13F. We believe CFONS is trading at deep discount to its peers due to misconception on products and pre-listing corporate governance issuance. We initiate BUY rating on the company for solid fundamentals, growth opportunities and re-rating potential.

Ticker	**3777 HK**
Rating	**BUY**
Price (HK$)	1.25
Target Price (HK$)	1.80 (+44.0%)
12m Price Range (HK$)	0.50 - 1.61
Market cap. (US$m)	195.1
Daily t/o (US$m)	0.72
Free float (%)	33.4

Financial summary

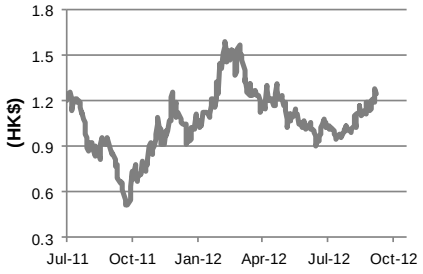
Year to Dec	10A	11A	12F	13F	14F
Turnover (RMBm)	838	1,257	1,529	2,085	2,543
Net Profit (RMBm)	182	253	287	395	481
EPS (RMB)	0.202	0.242	0.236	0.325	0.395
P/E (x)	5.1	4.2	4.4	3.2	2.6
P/B (x)	1.84	1.02	0.83	0.68	0.56
EV/EBITDA (x)	5.4	3.2	2.2	1.6	1.1
Yield (%)	0.0	0.0	3.8	5.2	6.3
ROE (%)	29.7	26.7	1,529	2,085	2,543
ROCE (%)	28.9	22.8	287	395	481
N. Gear. (%)	21.4	N.cash	N.cash	N.cash	N.cash

Source: SBI/Bloomberg

	11F	12F	13F
Consensus EPS (RMB)	0.243	0.295	0.340
Previous earnings (RMBm)	287.0	-	-
Previous EPS (RMB)	0.236	-	-

Price performance

Year to Dec	1m	3m	12m
Relative to HSI (%)	10.2	15.0	45.5
Actual price changes (%)	13.6	23.8	60.3



Source: Bloomberg

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Content

Investment thesis

Significant increase in China CAPEX and FTTX investment as part of 12th Five-year-plan. In recent years, growth in fiber optic patch cord market in China was primarily driven by telecom, broadcast and television investments largely on 3G network expansion, broadcast and television network upgrades as well as increasing FTTX adoption. Table 1 shows CAPEX and portion on broadband by 3 major telecom operators in China. While total CAPEX spent by 3 major telecom operators in China was slightly down from RMB279.9b in 2009 to RMB254.7b in 2011, the number is expected to go up again in 2012F to RMB289.9b. According to 12th Five-year-plan released by MIIT in May this year, infrastructure investment on information technology is targeted at RMB2,000b for 2011A to 2015F. Deducting RMB550b for 2011A to 2012F, average investment for the 2013F to 2015F is as much as RMB480b+ each year, significantly up from ~RMB300m in 2012F. In particular, the draft emphasized speeding up construction of backbone network, regional network as well as FTTX applications. Spending on broadband and data is expected to maintain momentum. For instance, this year, China Telecom launched a "Broadband China, Fiber Cities" campaign. For 2012F, according to our channel checks, CAPEX on broadband and data business by China Telecom and China Unicom were together up to RMB65.8m in 2012, up from RMB48.2m in 2009, which we believe would support fiber optic demand. As for China Mobile, while it is yet to receive broadband license from MIIT.

Table 1. CAPEX and portion on broadband by 3 major telecom operators in China

RMBb	FY12/09A	FY12/10A	FY12/11A	FY12/12F
China Telecom (0728 HK)	38.0	43.0	49.6	58.0
(including) Broadband and internet services	20.6	27.6	33.1	40.0
China Mobile (0941 HK)	129.4	124.3	128.5	131.9
(including) Broadband and data business	n.a.	n.a.	n.a.	n.a.
China Unicom (0762 HK)	112.5	70.2	76.7	100.0
(including) Broadband and data business	27.6	22.5	25.7	25.8
Total CAPEX	279.9	237.5	254.7	289.9
Known CAPEX on broadband and data	48.2	50.1	58.8	65.8

Source: SBI E2-Capital

CFONS provides solid direct sales to 3 major telecom operators in China; market share 21.4%. In the past 3 years, CFONS earned 65% to 70% revenue directly from the 3 key telecom network operators in China, while there were 15% to 25% overseas sales through distributors. In January 2001, CFONS FC fiber optic patch cords were granted the Network Access License for Telecommunications Equipment and the company began to supply fiber optic patch cords to one of the major telecommunications network operators in China in 2001. Since 2006, the 3 network operators in China have gradually implemented a centralized procurement policy. Based on recommendations of provincial-level subsidiaries, the national offices determine the qualification of equipment suppliers. Once approved, the company can enter into sales contract with the specific local subsidiary. With massive order from centralized procurement, leading domestic players began to achieve scalability and became increasing competitive. As for 2011A, CFONS captured 21.4% market share in China, compared to 9.0% by Sunsea (002313 CH) and 5.2% by Ceuturyman, a subsidiary acquired by TE Connectivity (TEL US).

Domestic players cost advantage in China over fully automated international players with overseas production. In global point of view, leading competitors are mainly conglomerates of US, Japan and Switzerland. Amphenol (APH US), 3M (MMM US), Sumitomo (8053 JP), Tyco (TYC US) and LEMO captured 13.6%, 11.9%, 10.3%, 10.3% and 9.9% global market share in terms of sales volume in 2010. That said, the top 5 captured 50%+ market share. Table 2 shows basic sales information of CFONS and the five competitors. According to our channel checks, international peers tend to rely on highly customized automated solutions for fiber optics and production for this segment are kept at their domestic market. For instance, Amphenol in China and Taiwan focuses more on IT connector products. Optical interconnect products production including fiber management systems, attenuators, jumpers, couplers, and service node cables are largely centralized in Illinois, US. In fact, back in 2010, Obama administration blocked US-base Emcore to sell 60% of its fiber optics segment to China's Tangshan Caofeidian Investment Corporation on national security concern. One consequence is that international prices for fiber patch cords products are relatively high on such cost base. CFONS domestic selling price was generally between RMB55 and RMB60 per set between 2009 and 2011, while selling price of a particular high-end product sold to international distributors was US$55 (RMB350-400) in the same period, which was closer to international prices. As such, we believe CFONS can maintain its leading position in China through direct sales and slowly capture small portion of international sales through distributors.

Table 2. CFONS and global sales and market share

	1H 2012A Sales	Gross margin	Net margin	2010 global market share
China Fiber Optic (3777 HK)	RMB715m	26.1%	15.6%	4.2%
Amphenol (APH US) – US conglomerate	US$2,043m	31.5%	13.1%	13.6%
3M (MMM US) – US conglomerate	US$15,020m	48.3%	15.3%	11.9%
Sumitomo Corp (8053 JP) – Japan conglomerate	¥1,578,100m	27.1%	5.1%	10.3%
Tyco (TYC US) – Switzerland investment holding	US$8,814m	39.1%	6.5%	10.3%
LEMO (private) – Switzerland manufacturer	n.a.	n.a.	n.a.	9.9%

Source: SBI E2-Capital

Expanding capacity to meet increasing demand while maintain a net cash position. CFONS is working to expand its capacity from 9m sets a year in 2011 to 18m sets by end of 2012F partly with its IPO proceeds in 2H 2011. Under our conservative assumptions, CFONS will utilize 90% operating cash flow before working capital changes in one particular year for expansion of the following year, of which half goes to CAPEX and the other half serves as additional working capital. As such, we expect CFONS to maintain its net cash position while raising its capacity to 18m sets in 2012F and further to 22m sets and 27m sets in 2013F and 2014F respectively. On percentage perspective, capacity is to double in 2012F and return to 20%-25% growth rate between 2013F and 2017F under our assumptions, which is largely in line with market growth potential, in our view.

Table 3. Expansion riding on industry consolidation with slight squeeze in margin

RMBm	FY12/10A	FY12/11A	FY12/12F	FY12/13F	FY12/14F
Nameplate capacity (m sets)	9.0	9.0	18.0	22.0	27.0
Output potential (m sets)	12.6	12.6	25.2	30.8	37.8
Actual sales (m sets)	10.8	17.9	20.2	27.7	34.0
Total revenue	838	1,257	1,529	2,085	2,543
Gross profit	268	400	441	602	733
Net profit	182	253	287	401	495
Total cash	129	582	729	728	763
Total bank borrowing	274	498	400	350	300
Net cash position	(145)	84	329	378	463
Total equity	677	1,220	1,507	1,850	2,266

Source: SBI E2-Capital

Attractive implied valuation with institution support – target price at HK$1.80. We value CFONS by a 2-stage discounted cash flow model. We have projection for the company up to 2017F and 2% terminal growth rate beyond 2017F with 17.5% discount rate on relatively high beta. Table 4 shows implied multiple of our target price. Table 5 shows general valuation of HK and China listed telecom components manufacturers and system providers. Based on our target price, implied P/E is 6.1x and 4.4x for FY12/12F and FY12/13F based on RMB287m and RMB401m net profit forecast respectively. On P/B valuation basis, our target price represents 1.2x and 0.9x for FY12/12F and FY12/13F.

Table 4. Implied multiples of our target price

	FY12/12F	FY12/13F	FY12/14F
Implied P/B (x)	1.2	0.9	0.8
Implied P/E (x)	6.1	4.4	3.5
Implied EV/EBITDA (x)	3.4	2.5	1.8

Source: SBI E2-Capital

Table 5. HK and China listed telecom components manufactuers

Company	Ticker	Fiscal Year End	Mkt Cap (US$m)	P/E (x) Historical	P/E (x) 1-year fwd	1-year fwd	P/B (x)	ROE (%)
Optical components / system production								
China Fiber Optic	3777 HK Equity	12/2011	195.2	4.6	4.2	3.4	1.0	26.7
Sunsea	002313 CH Equity	12/2011	720.2	26.9	24.4	18.2	2.5	14.8
O-Net Communication	877 HK Equity	12/2011	183.3	12.5	10.3	8.1	1.1	10.2
Fiberhome Telecom	600498 CH Equity	12/2011	1,464.1	20.6	18.7	14.8	2.3	12.0
RF coaxial cable production								
TRIGIANT GROUP	1300 HK Equity	12/2011	179.6	4.4	3.8	3.2	n.a.	49.9

Source: Bloomberg

Table 6. Major shareholders

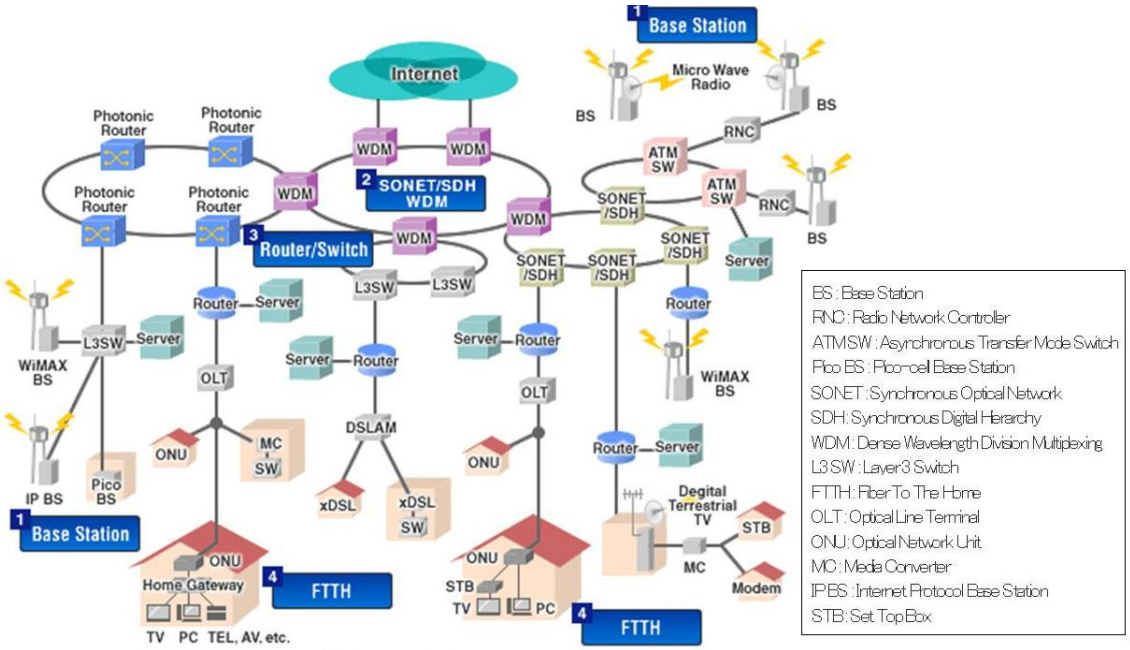
	Shareholding
Chairman Zhao Bing	43.22%
Investor Ou Shujin	8.16%
Cathay Capital	6.98%
Public	41.64%
Total	100%

Source: HKEx

Market background

Gradual replacement of fiber optic networks over copper wires. Fiber optics is a communication technology that sends signals through hair thin strands of glass fibers. Its bandwidth is 1,000 times of traditional copper for a distance of 100 times further. It is also of smaller size and lighter weight, as well as interference-free. Superior performance and lower overall costs make fiber optic ideal for longer-range transmission over copper. As for shorter-range transmission in FTTX, it would be expensive for both fiber and copper. Fiber itself is expensive for serving small number of users. While for copper, to achieve higher bandwidth, costy supporting hardware is required that gives no cost advantage over fiber. Backbone network mostly utilizes fiber optics, while there is a shift towards fiber especially for FTTB.

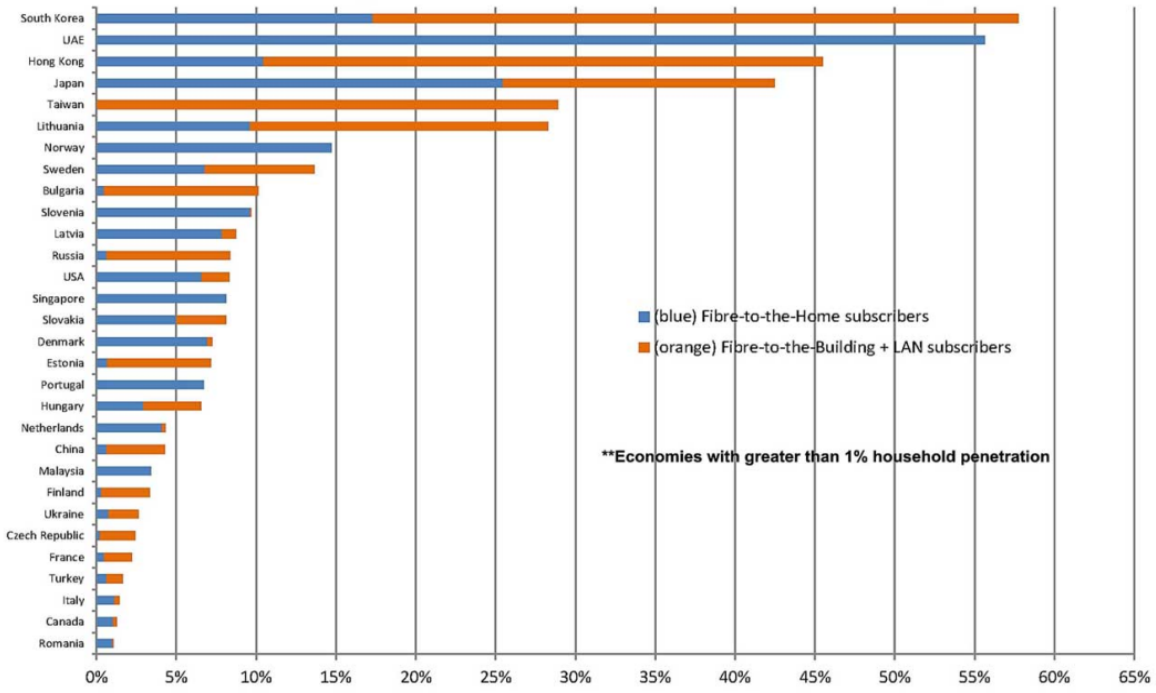
Illustration 1. Fiber optic network backbone illustration



Source: EPSON

A global story of increasing backbone and last mile bandwidth. With increasing number of fixed line and mobile users, worldwide telecom operators are moving forward to increase bandwidth and improve coverage quality. While 10G remains as dominant transmission rate for backbone network in the globe, US and Europe were upgrading their network to 40G mainly since 2008 and 100G mainly since 2011. Global demand for optical components and systems picked up quickly in 2011. As for China, top priority now on user bandwidth rather than backbone bandwidth. Between 2008 and 2011 large spending was placed on 3G mobile infrastructure. Since 2011, the focus was shifting towards on fixed line broadband penetration improvement. Illustration 2 shows World economies FTTH / FTTB penetration.

Illustration 2. World economies Fiber-to-the-home and Fiber-to-the-building penetration



Source: Fiber-to-the-Home Council 2011ranking

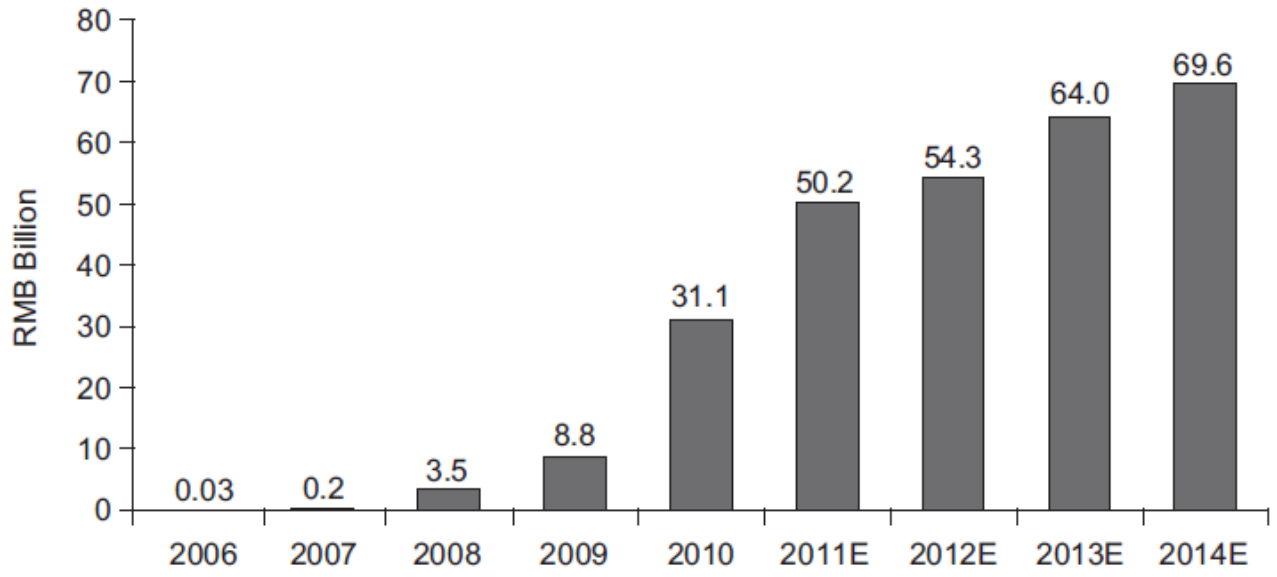
Accelerated market growth of fiber optic in China since last decade. In 2010, global fiber optic patch cord market size was just US$2.25b. Except for 2002 and 2003 economic downturn after IT bubble, global market of fiber optic patch cords maintained a growth rate between 10% and 25% for over a decade. As for China, market size increased sharply in recent years especially with 3G licenses officially granted in Jan 2009. Table 1 shows China and global market size of fiber optic patch cords. Fiber optic patch cords market size reached RMB2.83b in 2010, representing 5-10% China broadband related CAPEX, according to our understanding. Such drive was partly due to sharp increase in FTTX equipment market since 2008. Illustration 3 shows China's FTTX technology equipment market size by CCID. Due to recent shift in focus to last mile coverage, FTTX technology equipment market started to emerge since 2008 and reached RMB31.1b in 2010. Base on our discussion with CFONS management, last mile application usually involves high volume of multiple nodes fiber optic. Latest development with increasing FTTX demand represents opportunities for fiber optic patch cord producers.

Table 7. China and global fiber optic patch cords market size

	China (RMBb)	China (est US$b)	China / Global	Global (US$b)
1998	0.26	0.031	5.8%	0.54
1999	0.29	0.035	5.7%	0.61
2000	0.33	0.040	5.8%	0.69
2001	0.35	0.042	5.4%	0.79
2002	0.38	0.046	5.9%	0.78
2003	0.44	0.053	6.7%	0.80
2004	0.50	0.060	6.6%	0.92
2005	0.59	0.072	7.0%	1.03
2006	0.74	0.093	8.1%	1.15
2007	1.05	0.138	10.3%	1.34
2008	1.61	0.232	14.3%	1.62
2009	2.29	0.336	18.3%	1.83
2010	2.83	0.419	18.6%	2.25
2011F	n.a.	n.a.	n.a.	2.60
2012F	n.a.	n.a.	n.a.	3.20
2013F	n.a.	n.a.	n.a.	3.70
2014F	n.a.	n.a.	n.a.	4.20

Source: CCID, SBI E2-Capital

Illustration 3. China's FTTX technology equipment market size on the rise



Source: CCID

Business analysis and background

Products and sales breakdown. CFONS major product is fiber optic patch cords, which made up 95%+ turnover in the past 3 years. Other products are connection and distribution products as well as equipment room accessories. Illustration 4 shows CFONS products, which are pre-terminated and pre-polished patch cords. Illustration 5 shows samples of connection and distribution products as well as equipment room accessories, which are supplementary products with apparently no profit from these sales, in our view. Further looking into its major patch cords segment, domestic sales continued to be dominant with direct sales to telecom operators in China. Gross profit of domestic patch cord sales was between 25% and 30% in the past 3 years. As for overseas sales, the management indicated that due to fewer price competitions of higher-quality products in overseas market, product pricing is generally more attractive. CFONS captured gross margin between 50% and 60% in overseas segment in the past 3 years. As a whole, total turnover was on the rise and margin was generally stable. Note that nameplate capacity of fiber optic patch cords rose from 4m sets by end of 2008A to 9m by end of 2011A. For 2009A and 2010A, top-line increment was driven by increasing utilization of additional 5m sets capacity. As for 2011A, while waiting for listing proceeds to expand capacity up to 18m sets at end of 2012F, CFONS handled part of extra orders by outsourcing in 2011A, which boosted sales but slightly pressured on profit margin for the particular year.

Table 8. Sales breakdown of CFONS products

RMBm	FY12/09A	FY12/10A	FY12/11A
Total turnover	646	838	1,257
Fiber optic patch cords	615	785	1,234
Connection and distribution products	23	41	12
Equipment room accessories	7	11	12
Fiber optic patch cords	615	785	1,234
Domestic fiber optic patch cords sales	509.8	589.4	1,012.1
Overseas fiber optic patch cords sales	105.2	195.9	221.4
Overall gross margin	31.0%	32.0%	31.8%
Domestic patch cords gross margin	28.4%	27.5%	26.8%
Overseas patch cords gross margin	52.8%	53.9%	57.9%

Source: SBI E2-Capital

Illustration 4. Major products - pre-terminated / polished fiber optics

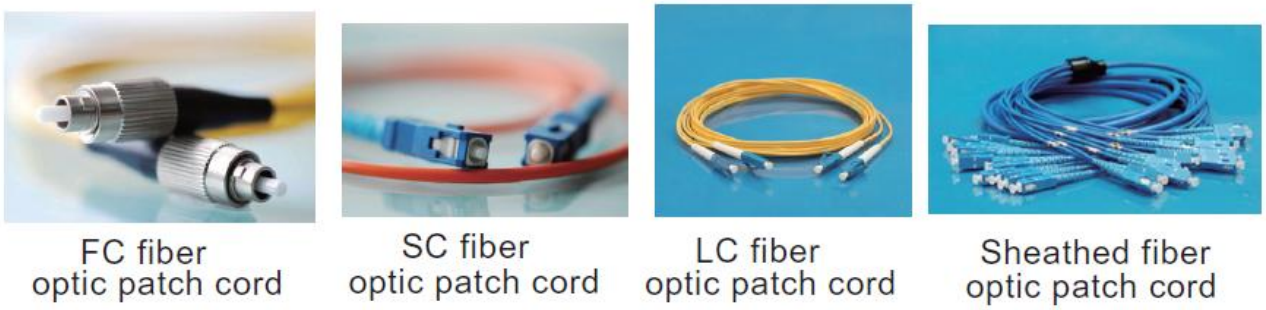
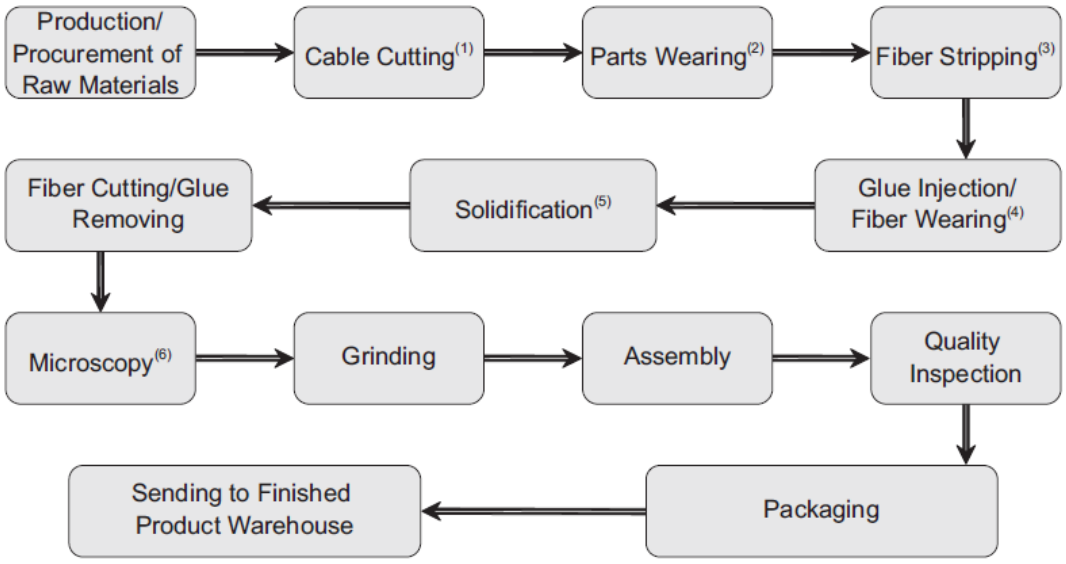


Illustration 5. Supplementary products samples – connection & distribution products and equipment room accessories

Source: CFONS

Production process, quality control and patents. CFONS procured majority of its equipment including polishing equipment and inspection equipment from Nanometer Technologies, a US equipment vendor founded in 1990s. The management indicated that there is no turnkey solution provider for full automation purpose; and international players tend to rely on customized solution which makes full automation costy. As such, the management pointed out that CFONS utilizes semi-automation and cost of production in China is lower and thus the company is more competitive especially in China market. Illustration 6 shows that flow chart on typical production process of fiber optic patch cords. Throughout the manufacturing process, quality control measures are implemented. For each key manufacturing step, the company indicated that senior management is significant involved in inspection and testing procedures for high quality and reliability of our products. Upon completion of the production process, CFONS perform final inspections to ensure that our customers' specifications and requirements are met prior to delivery of our products. The company also maintains a feedback system to respond promptly to any technological or quality problems that customers may encounter. In fact, while fiber optic patch cords make up small proportion of CAPEX, product quality and reliability rather than pricing are significantly more essential to the whole communication network system, in our view. As such, we believe small domestic competitors do not invest enough in production scale and testing equipments compared to current market leaders. On the other hand, CFONS accumulated expertise, knowledge, know-how and experience in the design and production of fiber optic patch cords. CFONS had 44 registered patents and 2 pending patent applications in China. In addition, CFONS have cooperated with institutions including Tsinghua University and Tianjin University to develop new communications technologies and products. We believe CFONS is able to maintain its leading position in China during the next heavy CAPEX cycle.

Illustration 6. Flow chart on typical production process of fiber optic patch cords



Source: CFONS

Telecom central procurement policy and direct sales arrangement with regional subsidiaries. CFONS sold most of its products to 3 major telecom operators in China. Since 2006, telecom operators have gradually implemented a centralized procurement policy. National offices of these operators determine the qualification of suppliers based on the recommendations of their provincial-level subsidiaries. For projects involving standard products, CFONS obtain sales of standard products through a bidding process. For projects involving customized products, CFONS are selected as a qualified supplier based on negotiations with the telecommunication operators. In fact, the 3 major telecommunications network operators in China only have a limited number of qualified suppliers due to their stringent vendor qualification process. Once CFONS is selected for a project, the company enters into a sales contract with the local subsidiary of the particular operator. This regime effectively reduces the impact of small manufacturers that rely on relationships with provincial-level subsidiaries, in our view. Pricing of products was generally stable at RMB55-60 per set over the past 3 years.

Stable historical product pricing. Table 9 shows product pricing and key raw material costs for the past 3.5 years. Between 2009A and 2011A, domestic selling price and overseas selling price were RMB55-60 per set and US$55 per set respectively. Pricing was relatively stable as we emphasized that product quality and reliability rather than pricing are significantly more essential to the whole communication network system due to their low relative cost as a percentage of total CAPEX. As for 1H FY12/12A, due to increased sales portion of FTTX products which has multiple nodes attached to a cable, per set ASP for the period increased to RMB69.5 per set in China. Note that however, for multiple-nodes, while ASP was higher due to increase number of nodes used. Nevertheless, ASP increment generally does not fully compensate increase in costs. As such, margin in percentage terms for this particular product is lowered at around 20%. On top of expectation of increasing FTTX penetration in China, the management expects to see this particular sales mix in short-term. As for international sales, the management also indicated that CFONS typically sourced imported soft optical cables and ceramic ferrules in order to meet higher technical specifications required by overseas customers. It is another main reason for significantly higher costs and average selling price than those in the domestic sales.

Stable raw material costing. Soft optical cable and ceramic ferrules are major raw materials for fiber optic patch cords. While both of the products are more or less commodity-like in features with stable supply, the management does not expect supply or sourcing difficulties. As of 2011A, the largest 5 supplies accounted for 76.9% of total purchase of CFONS and the single largest one accounted for 21.2%. Soft optical cable remained at around RMB1.0 per meter, while ceramic ferrules stayed between RMB2.0 and 2.5 per set over the past 3.5 years. Nevertheless, CFONS still plans to reduce our reliance on key suppliers by increasing our production capacity of the principal raw materials. For example, the company builds 9 new soft optical cable production lines to increase aggregate annual production capacity to 130,000km of soft optical cables. It would satisfy a portion of production requirement for soft optical cables. In addition, if presented with right opportunities, the management indicates that they will consider securing supply of ceramic ferrules through selective acquisitions and strategic alliances to further stabilize supply volume and pricing.

Table 9. Historical product pricing and key raw material costs

RMBm	FY12/09A	FY12/10A	FY12/11A	1H FY12/12A
Pricing per set				
Domestic pricing (RMB per set)	54.6	57.6	58.6	69.5
Overseas pricing (US$ per set)	55.0	55.0	55.0	55.0
Key raw materials				
Soft optical cable (RMB per meter)	1.2	0.9	1.0	0.7
Ceramic ferrules (RMB per set)	2.1	2.1	2.1	2.4

Source: SBI E2-Capital

Our conservative assumption of financial leverage-free mode of capacity expansion. As we have mentioned, CFONS is working to expand its capacity from 9m sets a year in 2011 to 18m sets by end of 2012F partly with its IPO proceeds in 2H 2011. Under our conservative assumptions, CFONS will utilize 90% operating cash flow before working capital changes in one particular year for expansion of the following year, of which half goes to CAPEX and the other half serves as additional working capital. As such, we expect CFONS to maintain its net cash position while raising its capacity to 18m sets in 2012F and further to 22m sets and 27m sets in 2013F and 2014F respectively. On percentage perspective, capacity is to double in 2012F and return to 20%-25% growth rate between 2013F and 2017F under our assumptions, which is largely in line with market growth potential, in our view. More information on projection assumptions is on the next page.

Financial information

Major assumptions for financial projection. Table 10 shows our major assumptions on fiber optic segment for 2012F to 2014F. As we have mentioned earlier, we assume CFONS to maintain a net cash position while expanding capacity to meet growing demand in China. Under such restriction, we assume nameplate capacity to increase to 18m sets a year in 2012F to 22.0m sets in 2013F and further to 27.0m sets by 2014F. With 80%+ utilization rate between 2012F and 2014F, we expect sales volume to increase to 20.2m, 27.7m and 34.0m for the 3 years with 15%-16% overseas sales. As for pricing and margin, for domestic sales, pricing is assumed higher at RMB65 per set while gross margin will fall to 23% due to increased sales proportion of FTTX products. For overseas market, ASP is assumed at US$55 per set with 60% gross margin. While growth statistics in 2012F is expected to be lower due to outsourcing contribution in 2011A, we expect revenue and profit to grow at considerable rate beyond 2012F.

Table 10. Major assumptions for financial projection of fiber optic segment

RMB m	FY12/10A	FY12/11A	FY12/12F	FY12/13F	FY12/14F
Nameplate capacity (m sets)	9.0	9.0	18.0	22.0	27.0
Output potential (m sets)	12.6	12.6	25.2	30.8	37.8
Expected utilization (m sets)	94%	102%	80%	90%	90%
Total output (m sets)	11.8	12.9	20.2	27.7	34.0
Sales of outsourced products (m sets)	0.0	5.0	0.0	0.0	0.0
Fiber optic patch cords turnover	785.3	1,233.5	1,505.0	2,061.0	2,519.5
Overseas proportion in dollar terms	25%	18%	16%	16%	15%
Domestic average ASP (RMB)	58	59	65	65	65
Domestic sales volume (m sets)	10.2	17.3	19.4	26.7	32.8
Estimated domestic gross margin	27.5%	26.8%	23.5%	23.1%	22.7%
Overseas average ASP (RMB)	370	333	325	317	309
Overseas sales volume	0.5	0.7	0.7	1.0	1.3
Overseas gross margin	53.9%	57.9%	59.7%	59.7%	59.7%
Net cash	(145)	84	338	347	481

Source: SBI E2-Capital

Track record and profit forecast. For 2012F to 2014F, revenue is projected at RMB1,529m, RMB2,085m and RMB2,543m respectively. With slightly declining gross margin from 29% towards 28%, revenue and gross profit growth for next 3 years is estimated between 20% and 40%. Net profit is expected to increase 13.3% to RMB287m in 2012F; and further to RMB395m in 2013F and RMB481m in 2014F.

Table 11. Profit and loss forecast (Full-year)

RMB m	FY12/10A	FY12/11A	FY12/12F	FY12/13F	FY12/14F
Revenue	838.1	1,257.0	1,528.6	2,084.6	2,543.0
Cost of goods sold	(570.2)	(857.5)	(1,087.2)	(1,489.4)	(1,826.7)
Gross profit	268.0	399.5	441.3	595.2	716.3
Operating expenses	(40.3)	(73.2)	(73.7)	(103.2)	(125.9)
Operating profit	227.7	326.3	367.6	492.0	590.4
Finance costs	(15.9)	(27.5)	(30.0)	(27.1)	(24.0)
Profit before tax	211.9	298.8	337.6	464.8	566.4
Income tax expense	(30.0)	(45.6)	(50.6)	(69.7)	(85.0)
Net profit	181.9	253.3	287.0	395.1	481.4
Reported EPS (HK$)	0.202	0.242	0.236	0.325	0.395

Table 12. Profit and loss forecast (half-year)

RMB m	1H 2011A	2H 2011A	1H 2012A	2H 2012F
Revenue	624.8	632.3	714.6	814.0
Cost of goods sold	(453.3)	(404.2)	(528.4)	(558.8)
Gross profit	171.5	228.0	186.2	255.1
Operating expenses	(39.6)	(33.6)	(31.2)	(42.5)
Operating profit	131.9	194.4	155.0	212.7
Finance costs	(11.6)	(15.8)	(20.5)	(9.5)
Profit before tax	120.2	178.6	134.5	203.1
Income tax expense	(20.5)	(25.0)	(23.3)	(27.4)
Net profit	99.7	153.5	111.2	175.8
Reported EPS (HK$)	0.111	0.131	0.091	0.144

Source: SBI E2-Capital

Strong balance sheet despite heavy CAPEX and working capital. By end of 2011A, PP&E was RMB665.2m while receivables were as much as RMB751.1m, which was equivalent to 200+ receivable days. Fiber optic patch cords business is capital intensive in nature that requires heavy initial investment as well as working capital in telecom industry. Nevertheless, we believe CFONS is financially health to further expand its capacity with RMB84m net cash position by the end of 2011A. Table 12 shows balance sheet items of CFONS. Auditor of CFONS is Ernst & Young.

Table 13. Balance sheet items

RMB m	FY12/10A	FY12/11A	FY12/12F	FY12/13F	FY12/14F
Non-current assets	538.1	813.9	753.3	882.9	1,046.5
Property, plant and equipment	471.9	665.2	710.8	841.1	1,005.6
Payment in advance	23.2	105.4	0.0	0.0	0.0
Goodwill	15.6	15.6	15.6	15.6	15.6
Deferred tax assets	27.4	27.7	27.0	26.2	25.3
Current assets	728.4	1,384.4	1,721.5	2,036.5	2,367.9
Inventories	25.0	28.4	32.6	57.1	68.0
Trade receivables	563.7	751.1	924.0	1,246.2	1,471.0
Pledged deposits	1.2	31.2	0.0	0.0	0.0
Cash and cash equivalents	127.6	550.4	737.8	697.3	781.2
Other current assets	10.9	23.3	27.0	35.8	47.8
Non-current liabilities	7.8	11.4	11.4	11.4	11.4
Current liabilities	581.2	966.8	956.3	1,063.2	1,155.9
Trade and notes payables	19.5	105.2	127.1	158.5	191.8
Other payables and accruals	189.4	280.2	345.3	470.8	580.2
Interest-bearing bank loans	273.5	497.5	400.0	350.0	300.0
Other current liabilities	98.8	83.9	83.9	83.9	83.9
Total equity	677.4	1,220.0	1,507.0	1,844.7	2,247.1

Source: SBI E2-Capital

Valuation

Target price at HK$1.80. Initiate BUY rating. We value CFONS with 2-stage discounted cash flow model. From 2012F to 2017F, we assume CFONS to grow at no financial leverage. From 2018F onwards, a conservative 2% terminal growth rate is assumed. With high beta up to 1.3, we discount future FCFE items at 17.5% discount rate. Under these assumptions, we value CFONS at HK$1.80, representing 44% upside. Based on our target price, implied P/E is 6.3x and 4.6x for FY12/12F and FY12/13F based on RMB287m and RMB395m net profit forecast respectively. On P/B valuation basis, our target price represents 1.2x and 1.0x for FY12/12F and FY12/13F. As a market leading with direct sales to major telecom operators, we believe CFONS will demonstrate solid earnings growth in short-term and subject to re-rating as market confidence on the company improves. We initiate BUY rating on CFONS.

Table 14. Our target price

Discount Rate	15.0%	17.5%	20.0%
Market cap (RMB)	2,154m	1,756m	1,474m
CNY / HKD	1.22	1.22	1.22
Market cap (HK$)	2,623m	2,129m	1,795m
number of shares	1,217m	1,217m	1,217m
Target price	HK$2.21	HK$1.80	HK$1.51

Table 15. Implied multiples of our target price

	FY12/12F	FY12/13F	FY12/14F
Implied P/B (x)	1.2	1.0	0.8
Implied P/E (x)	6.3	4.6	3.7
Implied EV/EBITDA (x)	3.5	2.6	1.9

Source: SBI E2-Capital

Peers comparison. Table 16 shows companies with similar business focus with CFONS. Among HK and China-listed optical components or system manufacturers, we believe CFONS is trading at deep discount to its peers due to misconception on products and pre-listing corporate governance issuance as discussed in our previous reports. China-listed peers are trading at up to 20x+ P/E for FY12/12F and 2.0-2.5x historical P/B. O-Net Communications, a HK-listed company in similar industry, is currently trading at 10.3x and 8.1x P/E for FY12/12F and FY12/13F. We believe the valuation gap may be narrowed as CFONS demonstrate solid earnings growth in the future and subject to re-rating as market confidence on the company improves.

Table 16. HK and China listed telecom components manufactuers

				P/E (x)				
Company	Ticker	Fiscal Year End	Mkt Cap (US$m)	Historical	1-year fwd	1-year fwd	P/B (x)	ROE (%)
Optical components / system production								
China Fiber Optic	3777 HK Equity	12/2011	195.2	4.6	4.2	3.4	1.0	26.7
Sunsea	002313 CH Equity	12/2011	720.2	26.9	24.4	18.2	2.5	14.8
O-Net Communication	877 HK Equity	12/2011	183.3	12.5	10.3	8.1	1.1	10.2
Fiberhome Telecom	600498 CH Equity	12/2011	1,464.1	20.6	18.7	14.8	2.3	12.0
RF coaxial cable production								
TRIGIANT GROUP	1300 HK Equity	12/2011	179.6	4.4	3.8	3.2	2.3	49.9

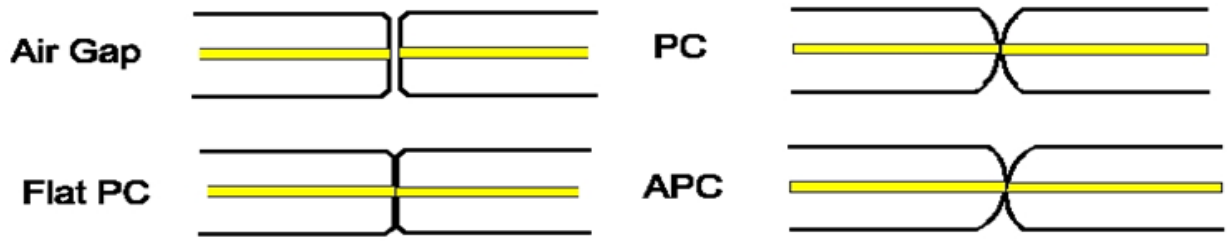
Source: Bloomberg

Appendix

Application of fiber optic cables and key issues in producing fiber optic patch cords. Fiber optic cable has many advantages over competing technologies in signal transmission. These include more information capacity, reduced ancillary equipment requirements in key applications, immense scalability and expandability with the same infrastructure, and electromagnetic noise immunity. As such, fiber optic cable installations are increasingly common. While soft optical cables (fibers) and ceramic ferrules (connectors) are generally available in the market, termination process is required to put them together. Especially for single-mode terminations, extreme care is required especially in polishing to achieve good performance of low losses and reflectance. The process therefore is usually done in a clean manufacturing facility using heat-cured epoxy and machine polishing. Typical field termination process that adhere connectors to cable, generally takes longer time during network installation with connector loss subject to the crew. Illustration 3 shows various pre-polished fiber optic patch cords with factory class polish by CFONS. Nevertheless, with full automation production cost will be very high. With semi-automation, while cost is lowered, considerable technique and experience is demanded for quality and consistency in mass production. Only with approved quality, components providers will be granted "Network Access License for Telecommunications Equipment" (电信设备进网许可证) and permitted to sell equipments to telecom operators for establishment of communication network.

More on polishing – one of the entry barrier to the industry. Along transmission, connection losses and back reflections are major causes of poor fiber performance. To reduce the negative effect, connectors especially single-mode connectors are best done in factory environment. Single-mode termination requires special connectors with much tighter tolerances on the ferrule, especially the hole for the fiber. Most connectors use epoxies or other adhesives to hold the fiber in the connector ferrule and polish the end of the fiber to a smooth finish. Polishing requires special diamond polishing film on a soft rubber pad and polishing slurry to get low reflectance. Illustration 4 shows various polishing techniques with different perform results. Typical PC connector losses are generally less than 0.3 dB for factory-polished single-mode or multi-mode connectors using adhesive/polish techniques. By end of 2011, CFONS owned 46 patents, 9 of which are related to closure, termination, connector and joint.

Illustration 7. Connector ferrule shape and polishes



Source: The Fiber Optic Association

Looking into corporate governance issue before lising. Chairman Zhao Bing and the company was involved in a US lawsuit amounted to US$0.311m in 2010 as US$0.311m was wired to company's forex account from a third party (arranger) in 2009. While it was related to RMB-to-US$ conversion restriction for an intended donation to a school in Canada for the purpose of Mr Zhao's personal matters, the arranger was separately sued for setting up ponzi scheme. As such, the company was also named relief defendant. At end of 2010, the company was ordered to disgorge US$0.311m together with an interest of US$7,951. Before listing, the company was also found non-compliant with companies ordinance with respect to account preparation and non-compliant with the Inland Revenue Ordinance. We agree that corporate governance has to be improved and may somewhat pressured on valuation in at least near-term. O-net Communications (0877 HK), which manufactures optical networking components, is currently trading at 8.2x and 6.7x FY12/12F and FY12/13F P/E according to Bloomberg consensus. Table 6 shows some HK-listed small-to-mid cap peers in telecom optic / cable equipment segment. CFONS is trading at general discount to its peers. Noted that, however, CFONS employ various experienced ED and INED and provides training courses to improve corporate governance. For instance, Mr Shi Cuiming, the ex-Chairman of CITIC Telecom (1883 HK), ex-ED of China Unicom (0762 HK) and ex-Chairman of broad & CEO of former China Mobile (0941 HK), served as CFONS INED since Jun 2011. We tend to believe that CFONS is in a capital intensive business with certain extent of technical barrier. Its financial figures generally match with its business model and industry norms, in our view. Auditor of CFONS is Ernst & Young.

Infopage

P&L (RMBm)	10A	11A	12F	13F	14F
Year to Dec					
Turnover	838	1,257	1,529	2,085	2,543
% chg	30	50	22	36	22
Gross profit	268	400	441	595	716
EBITDA	257	366	423	562	677
Depre./amort.	(29)	(40)	(55)	(70)	(86)
EBIT	228	326	368	492	590
Net int. income/(exp.)	(16)	(27)	(30)	(27)	(24)
Exceptionals	0	0	0	0	0
Associates	0	0	0	0	0
Jointly-controlled entit.	0	0	0	0	0
Pre-tax profit	212	299	338	465	566
Tax	(30)	(46)	(51)	(70)	(85)
Minority interests	0	0	0	0	0
Net profit	182	253	287	395	481
% chg	31	39	13	38	22
Dividends	0	(51)	0	(57)	(79)
Retained earnings	182	202	287	338	402
EPS (RMB) - Basic	0.202	0.242	0.236	0.325	0.395
EPS (RMB) - F.D.	0.202	0.242	0.236	0.325	0.395
DPS (RMB)	-	-	0.047	0.065	0.079
No. sh.s o/s (m) - W.A.	-	-	1,217	1,217	1,217
No. sh.s o/s (m) - Y.E.	-	-	1,217	1,217	1,217
No. sh.s o/s (m) - F.D.	-	-	1,217	1,217	1,217
Margins (%)					
Gross	32	32	29	29	28
EBITDA	31	29	28	27	27
EBIT	27	26	24	24	23
Pre-tax	25	24	22	22	22
Net	22	20	19	19	19

Balance Sheet (RMBm)	10A	11A	12F	13F	14F
Year to Dec					
Fixed assets	472	665	711	841	1,006
Intangible assets	16	16	16	16	16
Other LT assets	51	133	27	26	25
Cash	129	582	738	697	781
Accounts receivable	564	751	924	1,246	1,471
Other receivables	11	23	27	36	48
Inventories	25	28	33	57	68
Due from related co.s	0	0	0	0	0
Other current assets	0	0	0	0	0
Total assets	1,266	2,198	2,475	2,919	3,414
Accounts payable	(20)	(105)	(127)	(159)	(192)
Other payable	(189)	(280)	(345)	(471)	(580)
Tax payable	(48)	(84)	(84)	(84)	(84)
Due to related co.s	0	0	0	0	0
ST debts	(274)	(498)	(400)	(350)	(300)
Other current liab.	(51)	0	0	0	0
LT debts	0	0	0	0	0
Other LT liabilities	(8)	(11)	(11)	(11)	(11)
Total liabilities	(589)	(978)	(968)	(1,075)	(1,167)
Share capital	0	8	8	8	8
Reserves	677	1,212	1,499	1,837	2,239
Shareholders' funds	677	1,220	1,507	1,845	2,247
Minority interest	0	0	0	0	0
Total	677	1,220	1,507	1,845	2,247
Capital employed	822	1,136	1,169	1,497	1,766
Net (debt)/cash	(145)	84	338	347	481

Cash Flow (RMBm)	10A	11A	12F	13F	14F
Year to Dec					
EBIT	228	326	368	492	590
Depre./amort.	29	39	54	70	86
Net int. paid	(15)	(27)	(30)	(27)	(24)
Tax paid	(0)	(4)	(51)	(70)	(85)
Others	0	4	1	1	1
Gross cashflow	242	339	342	466	568
Chgs. in working cap.	(147)	(38)	(94)	(199)	(105)
Operating cashflow	95	300	248	267	463
Capex	(135)	(307)	5	(200)	(250)
Free cashflow	(40)	(7)	254	67	213
Dividends paid	0	(51)	0	(57)	(79)
Net distribution to MI	0	0	0	0	0
Investments	0	0	0	0	0
Disposals	0	0	0	0	0
New shares	0	290	0	0	0
Change in bank loans	68	224	(98)	(50)	(50)
Others	(5)	(33)	31	0	0
Net cashflow	23	424	187	(41)	84
Cash reserve - Beg.	106	128	550	738	697
Cash reserve - End.	128	550	738	697	781

Interim Results (RMBm)	1H 11A	2H 11A	1H 12A
Six months to Jun			
Turnover	625	632	715
% chg	58	43	29
Profit from operations	132	194	155
Interest expenses	(12)	(16)	(20)
Associates	0	0	0
Jointly-controlled entit.	0	0	0
Pre-tax profit	120	179	134
Tax	(21)	(25)	(23)
Minority interests	0	0	0
Net profit	100	154	111
% chg	7	73	12
EPS (RMB) - Basic	0.111	0.131	0.091
DPS (RMB)	0	0	0

Shareholding Structure	Shares o/s (m)	%
Chairman Zhao Bing	526	43.22%
Investor Ou Shujin	99	8.16%
Cathay Capital	85	6.98%
Public	507	41.64%
Total		100%

Background

CFONS is the largest fiber optic patch cord producer in China with 21.4% market share. Through processing soft optical cables and ceramic ferrules, the company offers 100+ models of fiber optic patch cords to communication industry since "Network Access License for Telecommunications Equipment" was granted in 2001. Fiber optic patch cords are devices consist of soft optical cables with each of their ends connected to one or more connectors for light signal transmission purpose. By end of 2011, production capacity of fiber optic patch cords was 12m sets a year.

Key Ratios	10A	11A	12F	13F	14F
Net gearing (%)	21	N.cash	N.cash	N.cash	N.cash
Net ROE (%)	30	27	21	24	24
EBIT ROCE (%)	29	23	21	23	22
Dividend payout (%)	0	0	20	20	20
Effective tax rate (%)	14	15	15	15	15
Net interest coverage (x)	16	13	14	21	28
A/R turnover (days)	207	191	200	190	195
A/P turnover (days)	27	27	39	35	35
Stock turnover (days)	11	11	10	11	13

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