

Fiber Optics Technology

Company Intro. *for 2017*
FOSTEC INC.



INTRODUCTION

FOSTEC Inc. is a fiber optic components, cables and equipment manufacturer in South Korea.

Being founded in **1998**, with 15 years history FOSTEC could expand its market to more than **30 countries** and keeps capturing customer's satisfaction by its high quality products, affordable prices and professional service.

FOSTEC has several distributors in **U.A.E, Qatar, Mexico and Kazakhstan etc.** The company had won several big tenders over the years in **Middle East, CIS, Asia, and Europe.**

FOSTEC is ISO 9001, 14001 certified company, it's compliant with **RoHS, OHSAS**, and also member of **KOTRA Seal of Excellence and INNOBIZ.**

FOSTEC always strives for excellence and keep developing its production and service. This year FOSTEC has opened its second factory in Korea.

With numerous export awards and loyal customers FOSTEC's vision is to become number one choice for customers in fiber optic industry!

Company Profile

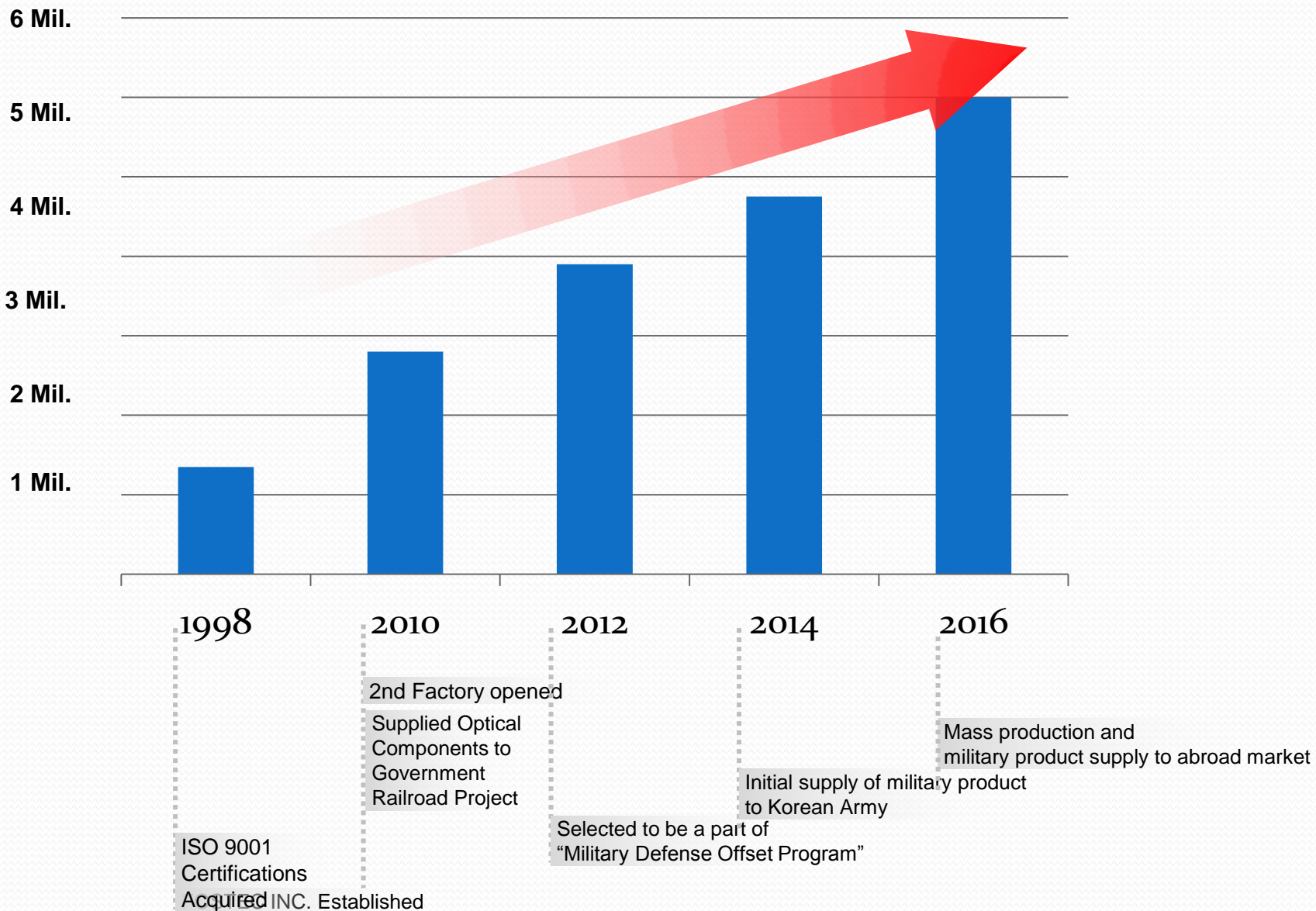


Name	FOSTEC INC.
Business Area	<ul style="list-style-type: none">• Fiber optics technology• Patch cord./ Splitter / OFD• Cable• Etc.
Employee	80 (As of the end of 2016)
Location	HEAD OFFICE (15655) Fostec Bldg, 40, Emtibeui 20-ro 12beon-gil, Danwon-gu, Ansan-si, Gyeonggi-do, Korea Tel. (+82)-31-318-9350 Fax. (+82)-31-318-9352

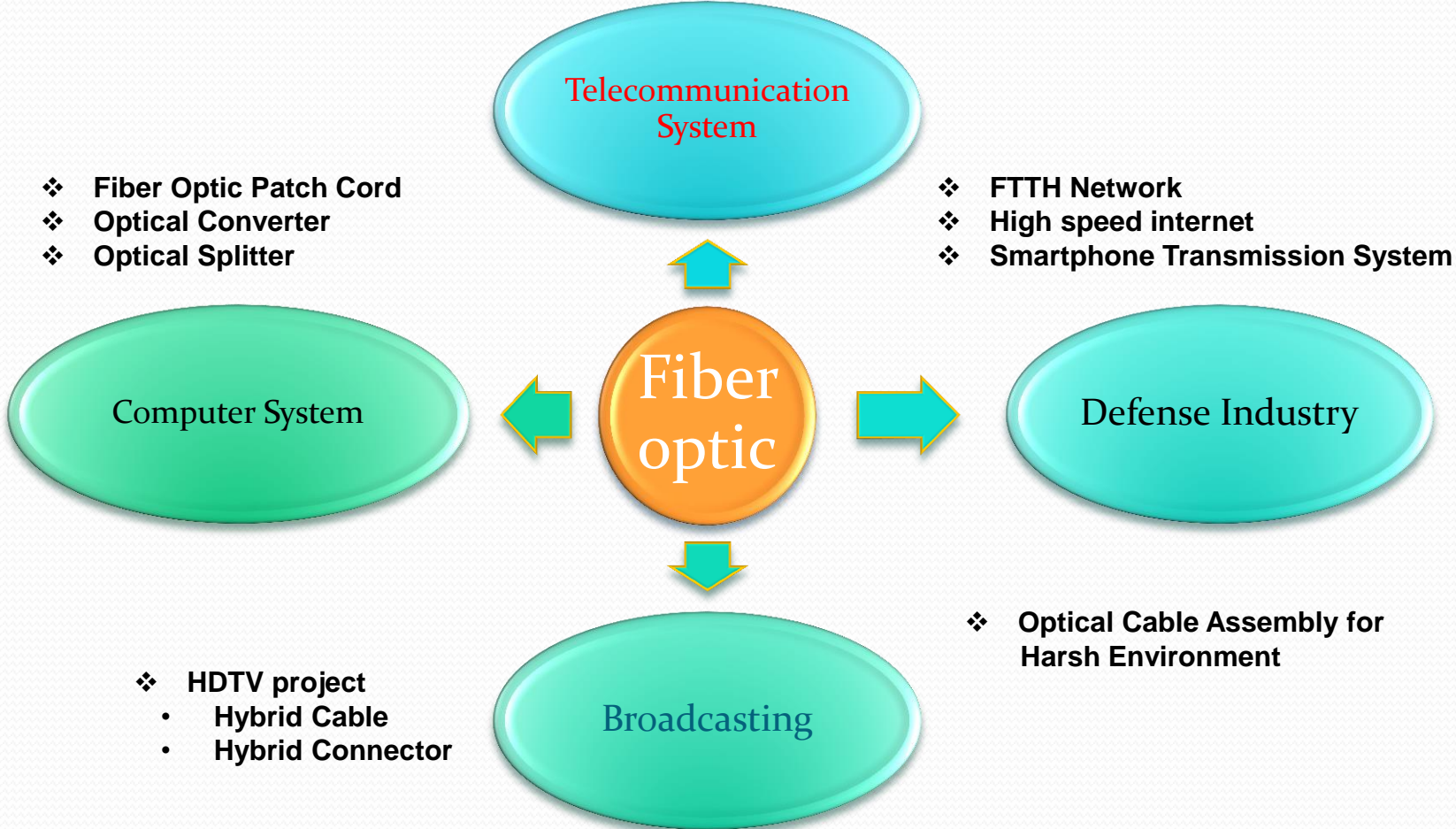
Company History

- 1998. 02. **FOSTEC was Established**
- 2001. 04. Opening of the Manufacturing Factory
- 2002. 03. A Technical Assistance Agreement with FURUKAWA CO. Japan was Reached
- 2002. 07. **Supplied Optical Components to Government Railroad Project**
- 2002. 10. The HDTV Optical Connector technology was approved by LEMO F.O.U.R
- 2003. 05. Development of the Digital Home System (HDTV, IP STB, DVD, Digital Monitor, 5.1CHSound)
- 2004. 03. Completion of a Multiple Channel Connector for Industrial use, Schools, and Research Institutes
- 2004. 08. **ISO 9001 Certifications Acquired**
- 2005. 07. ISO 14001 Certifications Acquired
- 2006. 01. Establishment of the Laboratory
- 2006. 05. Development of a Fiber Optic Connector for Special Projects to Accompany the Fiber Optic Cable
- 2006. 07. **Acquired a license for Fiber Optic MIKE & FOREX from the Korea Industrial Property Office**
- 2006. 12. **Registration of Cooperation Enterprise with SAMSUNG-NETWORKS**
- 2007. 01. **Yearly Contract Agreement with LG**
- 2008. 06. **Won Government Contract with Korean Army for Communications Project**
- 2009. 07. Acquired CE Certification for SM and MM media converters
- 2010. 10. International Telecommunications construction license registration (Overseas Construction Association)
- 2010.11. **Optoelectronic hybrid cable patent (Patent Office)**
- 2010.02. **Optoelectronic hybrid connector patent (Patent Office)**
- 2010.05. OHSAS 18001 Certification acquired
- 2010.07. 2nd Factory opened
- 2012.05. **Selected to be a part of "Military Defense Offset Program"**
- 2013. 03. Exhibitor in International Fiber Optic Exhibition OFCNFOEC 2012 (LA, USA)
- 2013. 05. Exhibitor in Broadcast Audio & Lighting Equipment Show, KOBA (Seoul, Korea)
- 2014. 03. Exhibitor in International Fiber Optic Exhibition OFCNFOEC 2013 (San Francisco, USA)
- 2014. 05. Exhibitor in Broadcast Audio & Lighting Equipment Show, KOBA (Seoul, Korea)
- 2014. 06. Exhibitor in Broadcast Asia 2014. (Singapore)
- 2014. 10 Exhibitor in Photonics Korea 2014 (Gwangju, Korea)
- 2015. 03. Exhibitor in International Fiber Optic Exhibition OFCNFOEC 2015 (LA, USA)
- 2015. 05. Exhibitor in Broadcast Audio & Lighting Equipment Show, KOBA (Seoul, Korea)
- 2015. 12. Exhibitor in Hi-Tech Defense Industry Fair (Daejeon, Korea)
- 2016. 08 Office Relocation

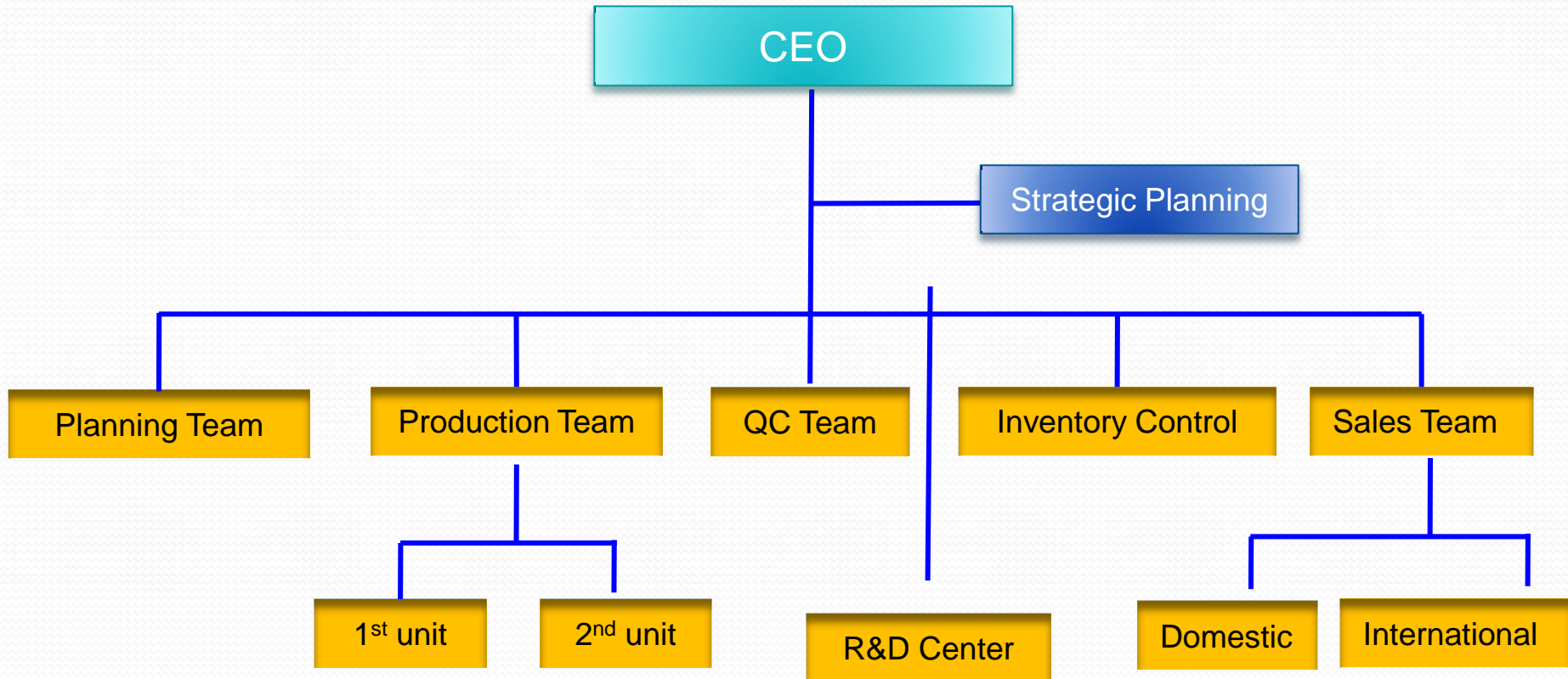
Sales Revenue & History



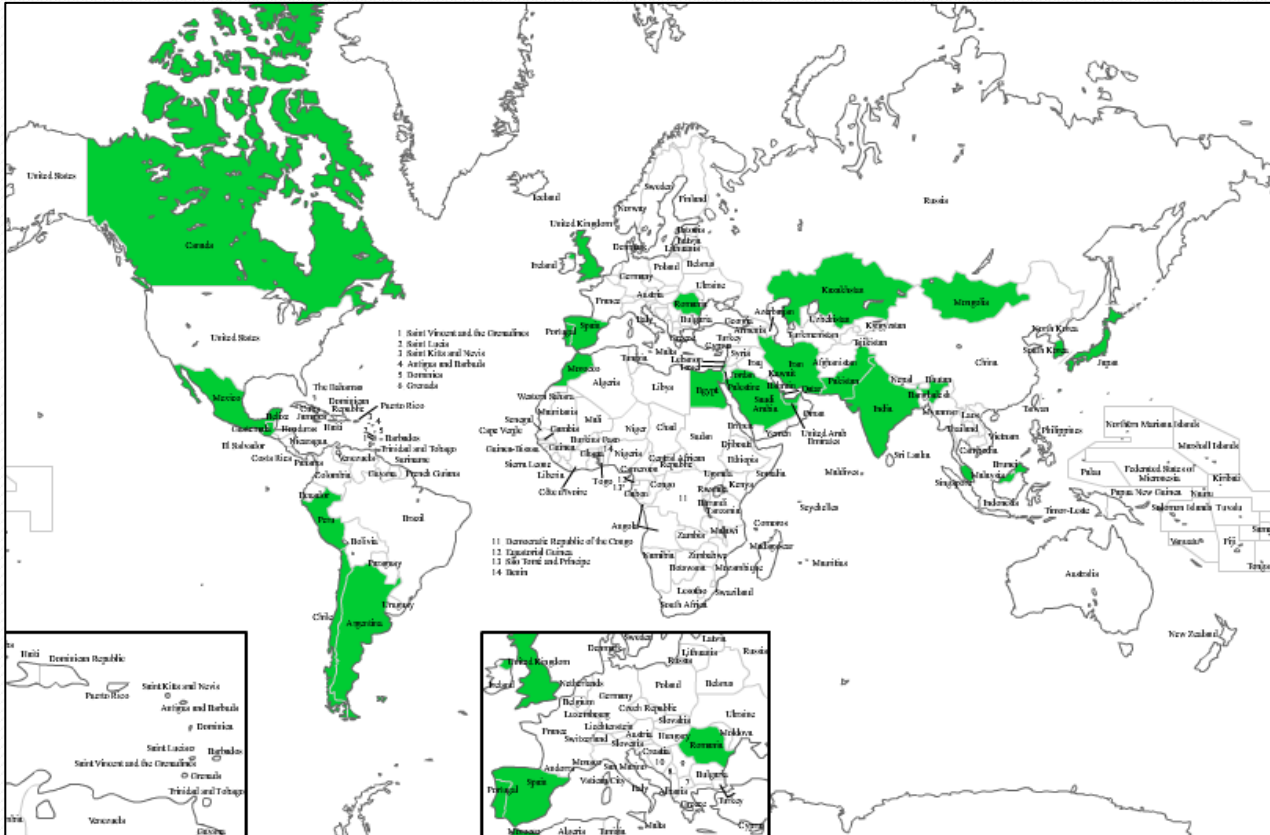
Business Model



Organization



Global Presence

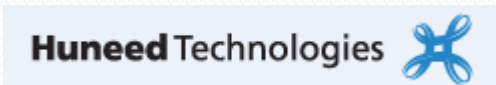


Present in more than 30 countries

Working with over 40 different companies

**Official Distributors:
U.A.E & Saudi Arabia**

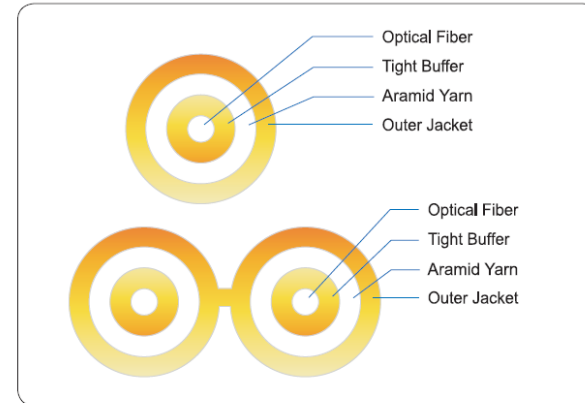
Local Clientele



Products Fiber Optic Cable

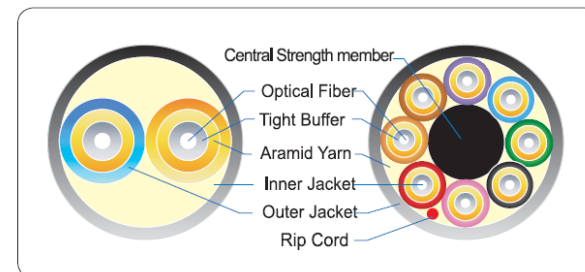
▶▶ Simplex and Duplex Cable

ITEM	Outer Diameter(mm)	Weight(kg/km)	Max.Tensile Load(kg)
Simplex	1.6	2.5	10
	2.0	5.0	15
	2.4	8.5	20
	3.0	11.5	30
Duplex	1.6 X 3.2	6	20
	2.0 X 4.0	8	30
	2.4 X 4.8	10	40
	3.0 X 6.1	18	50



▶▶ Breakout Cable

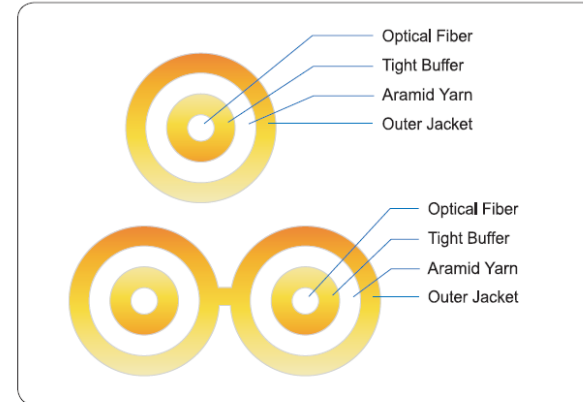
ITEM	Outer Diameter(mm)	Weight(kg/km)	Max.Tensile Load(kg)
2	6.0	50	80
4	8.5	70	80
6	10.0	100	100
8	12.0	120	120
12	14.0	190	180



Products Fiber Optic Cable

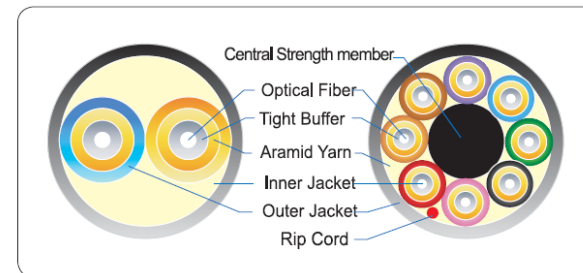
▶▶ Simplex and Duplex Cable

ITEM	Outer Diameter(mm)	Weight(kg/km)	Max.Tensile Load(kg)
Simplex	1.6	2.5	10
	2.0	5.0	15
	2.4	8.5	20
	3.0	11.5	30
Duplex	1.6 X 3.2	6	20
	2.0 X 4.0	8	30
	2.4 X 4.8	10	40
	3.0 X 6.1	18	50



▶▶ Breakout Cable

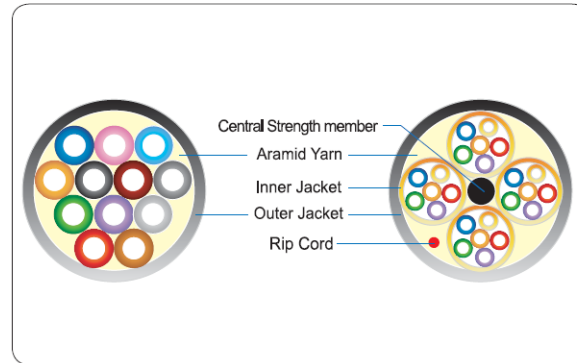
ITEM	Outer Diameter(mm)	Weight(kg/km)	Max.Tensile Load(kg)
2	6.0	50	80
4	8.5	70	80
6	10.0	100	100
8	12.0	120	120
12	14.0	190	180



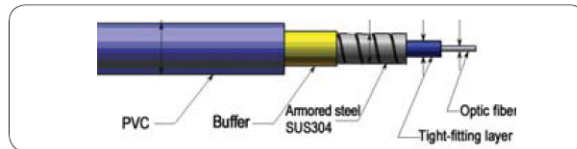
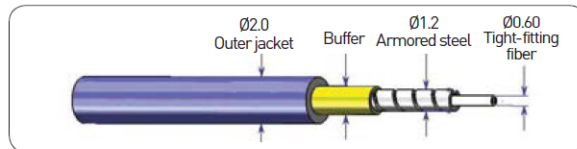
Products Fiber Optic Cable

►► Distribution Cable

ITEM	Outer Diameter(mm)	Weight(kg/km)	Max.Tensile Load(kg)
4	5.5	25	66
6	6.0	30	66
8	6.5	35	66
12	7.5	45	80
24	15.0	165	100
36	16.0	190	130
48	18.5	260	180



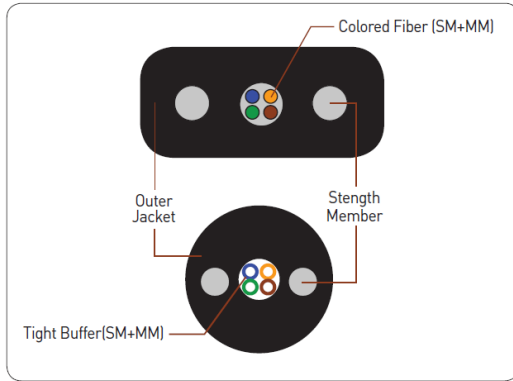
►► Armored Cable



Inspection Index [1550mm]	Term		Crush		Concussion	Bend
	Short-term	Long-term	Short-term	Long-term		
	≤0.03 dB	≤0.01 dB	≤0.03 dB	≤0.01 dB	Optic Fiber don't break off	≤0.03 dB
Ø 2.0	>300N	>100N	>5000N / 100 mm	>3000N / 100 mm	4.5 Nm, 5 times	15D, 1000 times
Ø 3.0	>500N	>250N	>5000N / 100 mm	>3000N / 100 mm	4.5 Nm, 5 times	15D, 1000 times

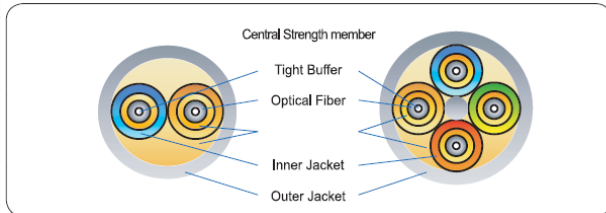
Products Fiber Optic Cable

▶▶ Drop Cable



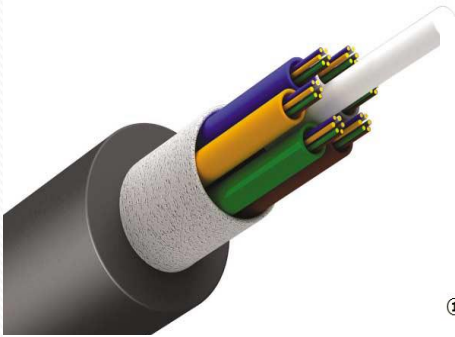
ITEM		Rectangle Shape		Cycle Shape	
Number of Cores		up to 6	up to 2	up to 6	up to 4
Dimension or		2(H) x 3.1(W)	4(H) x 8(W)	7.0	6.8
Outer Diameter(mm)					
Weight(kg/km)		25	40	45	40
Tension	Material	Strength Member(Steel Wire or FRP)			
Member	/Size	/1.0mm x 2(ea)			
Sheath Material		PVC, PE, PU, LSZH			
Max. Tensile Load(kg)		150		150	

▶▶ Military Tactical Cable

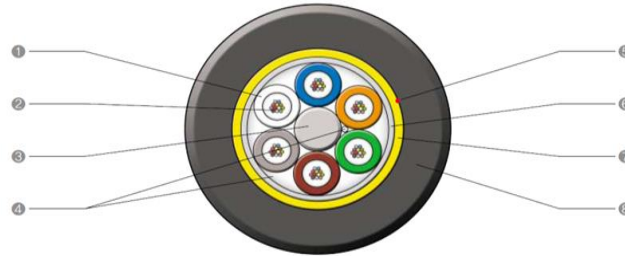
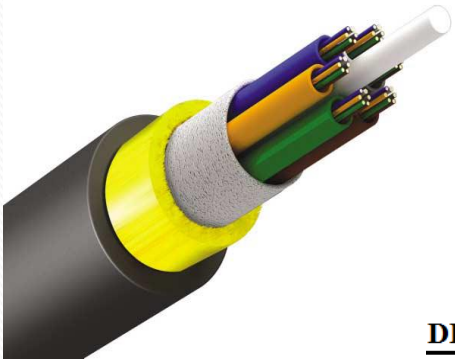


Number of core	Outer Diameter (mm)	Weight (kg/km)	Max.Tensile Load (kg)	Min. Bending Radius (mm)	
				Installation	Operation
2	6.5	35	200	D×20	D×10
4	7.0	45	200		

Fiber Optic Outdoor Cable



① Loose Tube ② Optical fibers ③ Central strength member ④ Core filling ⑤ Ripcord ⑥ Core wrapping tape ⑦ Outer strength member ⑧ Outer PE jacket



① Loose Tube ② Optical fibers ③ Central strength member ④ Core filling ⑤ Ripcord ⑥ Core wrapping tape ⑦ Aramid yarns layer ⑧ Outer HDPE jacket

DESCRIPTION / FEATURES

- Different fiber types available
- All dielectric Single jacket, UV stabilized, Water block
- Excellent mechanical and environmental performance
- Light weight and flexibility
- High tensile strength available

APPLICATIONS

- Outdoor duct, aerial lashing applications
- Areas with lightning risk, Vicinities of power line plant, Strong electromagnetic field
- High capacity
- Long haul communication system
- Subscriber & Local Area Network
- Voice, data, video & imaging system

Fiber Optic Patch Cord



►► Applications

- Telecommunication networks
- Local Area Networks
- CATV networks
- Active device termination
- Data system networks

►► Features & Benefits

- Compliant with: IEC, JIS, Telcordia
- Customer length
- Standard length of SC, FC and ST assemblies in stock
- Minimum loss

Specification

Parameter	Condition	Value [dB]		
		Min	Typical	Max
Insertion Loss			< 0.15	< 0.30
Return Loss	SPC	> 40	> 45	
	UPC	> 50	> 55	
	APC	> 60	> 65	
Mating Durability	500 times			< 0.20
Temperature Cycling	-40°C ~ + 85°C			< 0.20
Humidity Cycling	75°C, RH 95%			< 0.20
Vibration	10-55Hz [3 Axis]			< 0.20
Impact	1.5m drop, 8 times			< 0.20

Fiber Optic Attenuator



Plug type Fixed Attenuator



Line type Fixed Attenuator



Line type Variable Attenuator

Specification

Parameter	Condition	Value [dB]		
		Min	Typical	Max
Attenuation			1 ~ 10	
			15, 20	
Return Loss	SPC	> 40	> 45	
	UPC	> 50	> 55	
	APC	> 60	> 65	
Attenuation Accuracy	1 ~ 10		±0.5	
	15 ~ 20		±1.0	
Operating Wavelength [nm]		1310 and 1550		
Operating Temperature		-40°C ~ +85°C		
Humidity		75°C, RH 95%		

PLC Splitter



Specification

Parameter	N x 4	N x 8	N x 16	N x 32
Fiber	SMF-28			
Operating Wavelength [nm]	1260 ~ 1620			
Insertion Loss [dB]	≤ 7.4	≤ 10.7	≤ 13.9	≤ 17.5
Uniformity [dB]	≤ 0.5	≤ 0.8	≤ 1.3	≤ 1.5
Polarization Dependent Loss [dB]	0.2	0.2	0.3	0.3
Return Loss [dB]	> 50			
Directivity [dB]	> 55			
Operating Temperature	-40°C ~ +85°C			
Storage Temperature	-60°C ~ +85°C			
Dimensions [L x W x H] [mm]	40 x 4 x 4		55 x 7 x 4	

* Note : All measurement were tested at room temperature without connectors.

►► Applications

- FTTx
- LAN, WAN and Metro networks
- Analog / Digital Passive Optical Networks
- CATV Networks
- Other applications in fiber optic systems

►► Features & Benefits

- Compact design
- Low insertion loss and low PDL
- High reliability
- High channel counts
- Wide wavelength range
- Wide operating temperature range
- Customized packaging and configuration

CWDM & DWDM



Specification

Parameter		Value
Operating Wavelength[nm]		1260-1620
Channel No.		2 / 4 / 8 / 16 / Other
Center wavelength[nm]		1310 / 1490 / 1550 / 1470 ~ 1620
Passband width[nm]		CWDM : ± 7.5 DWDM : 0.22
Passband flatness [dB]		≤ 0.5
Insertion Loss	COM → Pass Port [dB]	≤ 2.8
	Isolation	Adjacent channel isolation : 30
Isolation	COM → Pass Port [dB]	Non-adjacent channel isolation : 40
	Polarization Dependent Loss [dB]	≤ 0.15
Return Loss [dB]		≥ 50
Directivity [dB]		≥ 55
Optical Power [mW]		≤ 500
Fiber Type		SMF - 28
Operating Temperature [°C]		-10 ~ +70
Storage Temperature [°C]		-40 ~ +85
Dimension [mm]		100 x 80 x 10 / 140 x 115 x 18

▶▶ Applications

- Line monitoring
- WDM Network
- Telecommunication
- Cellular application
- Fiber optical amplifier

▶▶ Features & Benefits

- Low insertion loss
- Wide pass band
- High channel isolation
- High stability and reliability
- Access Network

Converters & Switches



Fiber to UTP Converter



Fiber Optic Ethernet Switches

Measuring Device



Light Source

►► Applications

- Telecom Maintenance
- CATV Maintenance
- Fiber Optic lab testing
- Other Fiber Optic Measurements

►► Features & Benefits

- Provides 1~6 wavelengths output which can be optional according to customers' needs
- CW 2Hz modulation output at 650nm, and CW, 270Hz, 1KHz, 2KHz modulation output at other wavelengths.
- High stability of the output power
- Stable output wavelength
- Backlight LCD display supports night operation
- Low battery power indication



Power Meter

►► Features & Benefits

- Wide dynamic measurement range (up to 80dB)
- Reference power level storage(Ref Setting)
- User self-calibration function
- Comfortable LCD display and backlight LCD display supports night operation.
- Power measurements in dBm or mw and insertion loss in dB
- 10 minutes Auto-off function can be activated or deactivated.
- AA alkaline batteries can last more than 140 hours, AC adaptor also available
- Low battery indication

Fusion Splicer



4S



6S



VIEW 5



VIEW 7

Distribution Panel

FDF [Fiber Distribution Frame]



FDF-1U [12/24Core]



FDF-2U [48Core]



FDF-3U [72Core]



FDF-Wall [24/48/72Core]
[1U=44.45mm]

► Applications

- Telecommunication networks
- Local Area Networks
- FTTH
- CATV networks
- Active device termination

► Features & Benefits

- Low excess loss & high performance
- Retractable splicing tray
- Convenience and ease of handling
- Indoor use, outdoor use customizable

Parameter	Unit	FDF-1U	FDF-2U	FDF-3U	FDF-WALL
Fiber Capacity	Core	≤24	≤48	≤72	≤24 [max 72]
Number of Tray	PCS	1	2	4	2
Dimension	Height	1U	2U	3U	305 mm
	Width	mm	482	482	305
	Depth	mm	305	305	95
Remark		Rack Mount	Rack Mount	Rack Mount	Wall Mount

Distribution Panel

OFD (Optical Fiber Distribution)



OFD-1 [12 / 24Core]



OFD-2 [12 / 24Core]



OFD-3 [12 / 24Core]



OFD-4 [48Core]



OFD-5 [144Core]



OFD-6 [288Core]
[1U=44.45mm]

► Applications

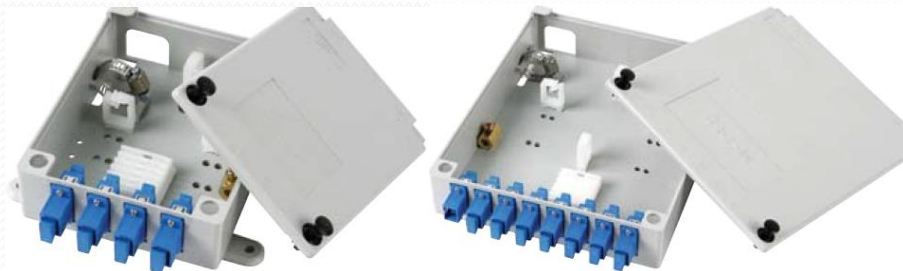
- Telecommunication networks
- Local Area Networks
- FTTH
- CATV networks
- Active device termination

► Features & Benefits

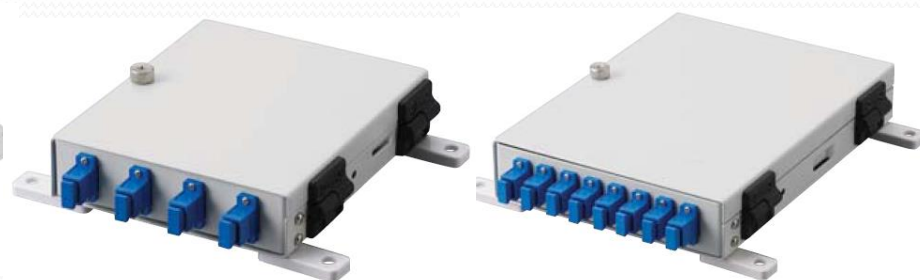
- Low excess loss & high performance
- Retractable splicing tray
- Convenience and ease of handling
- Indoor use, outdoor use customizable

Parameter		Unit	OFD-1	OFD-2	OFD-3	OFD-4	OFD-5	OFD-6
Fiber Capacity		Core	≤24	≤24	≤24	≤48	≤144	≤288
Number of Tray		PCS	1	1	1 or 2	2	5	12
Dimension	Height		1U	1U	3U	5U	5U	9U
	Width	mm	482	482	482	482	482	482
	Depth	mm	305	305	305	305	305	305
Remark			Round	Draw	Round	Panel	Panel	Panel

Mini Distribution Panel



MOFD (Plastic)



MODP (Metal)

► Applications

- Telecommunication networks
- Local Area Networks
- FTTH
- CATV networks
- Active device termination

► Features & Benefits

- Low excess loss & high performance
- Retractable splicing trays
- Convenience and ease of handling
- Ideal for small spaces
- Light weight

Specification

Parameter		Unit	MOFD		MODP		
Fiber Capacity		Core	4	8	4	8	12
Dimension	Height	mm	38	40	30	35	35
	Width	mm	95	145	110	140	140
	Depth	mm	120	175	135	190	190
Material			ABS	ABS	Steel	Steel	Steel

Distribution Tap



► Applications

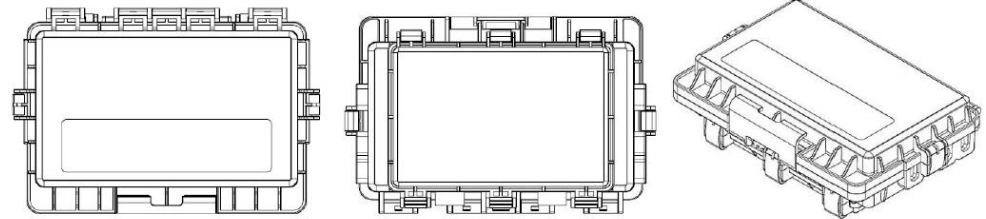
- Telecommunication networks
- Local Area Networks
- FTTH
- CATV networks
- Active device termination

► Features & Benefits

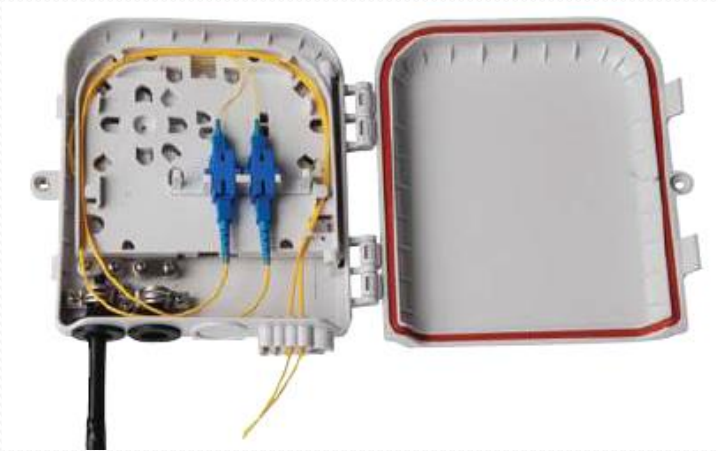
- Low excess loss & high performance
- Retractable splicing trays
- Convenience and ease of handling
- Similar to the closure, but can distribute through patch cords

Specification	
Dimension (mm)	272(L) x 195(W) x 67.5(H)
In/Out Port	Feeder: 6 / Drop: 16
Tray Capacity	24C
Max No. of trays	2
Adaptor Capacity	8 (Max 16 with extension kit)
Cable (mm)	Feeder: 7~12 / Drop: 3~5

Demonstration



Termination Box



► Applications

- Telecommunication networks
- Local Area networks
- FTTH
- CATV networks
- Active device termination

► Features & Benefits

- Low excess loss & high performance
- Retractable splicing trays
- Convenience and ease of handling
- Similar to the closure, but can distribute through patch cords



Specification

Parameter	OTP-8	OTP-16
Size[mm]	197 x 214 x 53	220 x 300 x 80
Weight [Kg]	0.8	1.3
Inlet Port	2/8	2/16
Cable[mm]	Ø 8 ~ Ø 12	Ø 8 ~ Ø 12
Splicing Capacity	8c	16c
Splitter available	1*4/1*8/2*4/2*8	1*4/1*8/2*4/2*8/2*16
Mounting type	Wall mount or Pole mount	

Inspection Micro Scope Tool Kit



Portable Inspection Scope Kit



Inspection Scope



One Click Cleaner

SPECIFICATION	
Length x Width x Height (cm)	29.40 x 4.32 x 17.78
Weight	0.3 lb. / 0.14 kg.
Camera Type	0.33inch CCD
Video Output	PAL/NTSC USB2.0
Light Source	Blue LED, 100,000 + hrs life
LCD Display	
Dimensions	(3.7"W) x (4.17" H) x (1.37" D)
Weight	0.92 lb. / 0.42 kg.
Video Display	3.5" TFT Active Matri x 2.2 million pixels
Power Source	Input AC, Output 110-240 V DC, 12.6V
Working Time	Continuous Working Time > 8 hrs
Charging Time	4 hrs

International Certificate

CE

CE

ISO 9001

ISO 14001

EC declaration Of Conformity



according to EMC Directive 2004/108/EC

We herewith declare,

FOSTEC INC.
FOSTEC BLD. #703-33, SINCHON-DONG, SHEUNG-SI,
GYEONGGI-DO, 429-828, KOREA

that the following equipment complies with the appropriate basic safety and health requirements of the EC Directive based on its design and type, as brought into circulation by us. In case of alteration of the equipment, not agreed upon by us, this declaration will lose its validity.

Equipment Description : Media converter
Equipment Type : Single-mode

Applicable EC Directives : EMC Directive (2004/108/EC)
Applicable Harmonized Standard : EN 55022/A2:2003/Class A
EN 55024/A2:2003

Authorized Signature/Date :  / July 10, 2009
Title of Signatory : Lee Sun Young / President

EC declaration Of Conformity



according to EMC Directive 2004/108/EC

We herewith declare,

FOSTEC INC.
FOSTEC BLD. #703-33, SINCHON-DONG, SHEUNG-SI,
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that the following equipment complies with the appropriate basic safety and health requirements of the EC Directive based on its design and type, as brought into circulation by us. In case of alteration of the equipment, not agreed upon by us, this declaration will lose its validity.

Equipment Description : Media converter
Equipment Type : Multi-mode

Applicable EC Directives : EMC Directive (2004/108/EC)
Applicable Harmonized Standard : EN 55022/A2:2003/Class A
EN 55024/A2:2003

Authorized Signature/Date :  / July 10, 2009
Title of Signatory : Lee Sun Young / President

CERTIFICATE OF REGISTRATION

환경 경영 시스템

본 인증서는 아래와 같이 인증합니다.

주포스텍
경기도 시흥시 신원동 703-33 포스텍빌딩

상기표시된 환경 경영 시스템의 아래 규격에 부합하는 것으로 확인되었습니다.
인증범위는 다음과 같습니다.

ISO 14001:2004
인증번호는 다음과 같습니다.

광부품(콘넥터, 점퍼코드, 어댑터, 감쇠기, 커플러, PLC 스플리터), 광분배함, 광전송장비, 광컨버터의 설계, 개발, 제조 및 서비스

발행일: 2009년 04월 22일 유효일: 2012년 04월 21일
최초인증일: 2009년 04월 22일

인증번호: 643267

Kim Sang Su 

Guardian Independent Certification Ltd
www.gic-iso.com.au/register

Registered in England
Company No: 2732048
Accredited by Member of the IAF, IEC, ILAC
JAS-ANZ Registrar No: 22018063



CERTIFICATE OF REGISTRATION

품질 경영 시스템

본 인증서는 아래와 같이 인증합니다.

주포스텍
경기도 시흥시 신원동 703-33 포스텍빌딩

상기표시된 품질 경영 시스템의 아래 규격에 부합하는 것으로 확인되었습니다.
인증범위는 다음과 같습니다.

ISO 9001:2008/KS Q ISO 9001:2009
인증번호는 다음과 같습니다.

광부품(콘넥터, 점퍼코드, 어댑터, 감쇠기, 커플러, PLC 스플리터), 광분배함, 광전송장비, 광컨버터의 설계, 개발, 제조 및 서비스

발행일: 2009년 04월 22일 유효일: 2012년 04월 21일
최초인증일: 2009년 04월 22일

인증번호: 643253





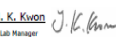




Kim Sang Su 

Guardian Independent Certification Ltd
www.gic-iso.com.au/register

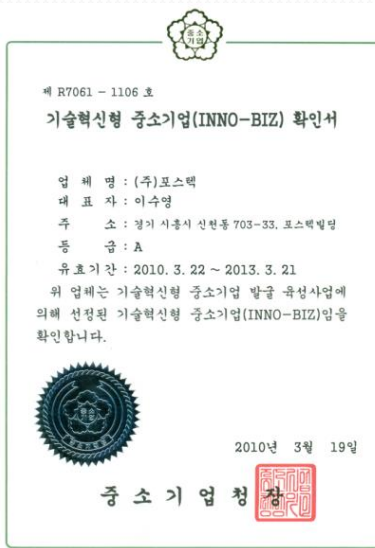
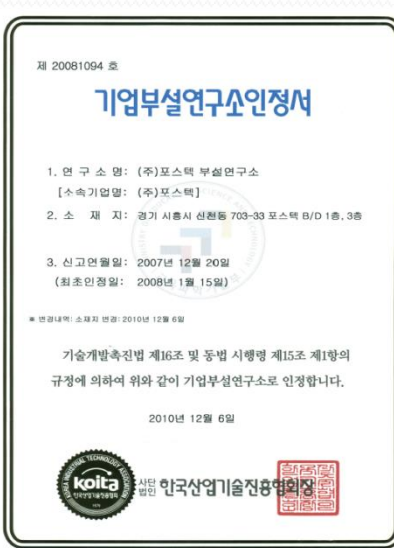
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Company No: 2732048
Accredited by Member of the IAF, IEC, ILAC
JAS-ANZ Registrar No: 22018063



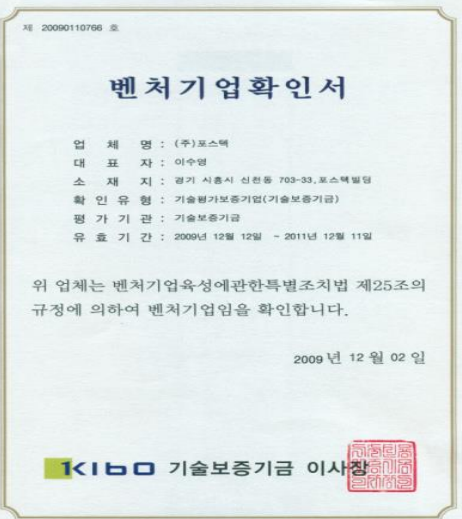
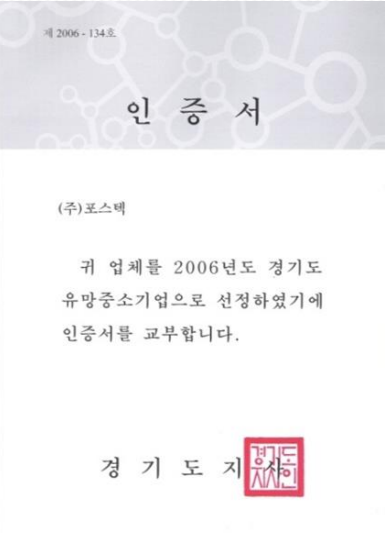

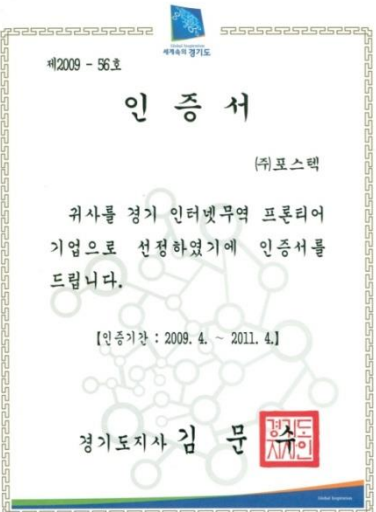
International Certificate

LEMO	RoHS	TELCORDIA
 <p>CERTIFICATE OF APPROVED</p> <p><i>This is to certify that</i></p> <p>Soo Young Lee Of FOSTEC INC.</p> <p><i>LEMO E.O.U.R. recommend that Fostec should receive official "LEMO APPROVED" status and has been supplied with documentation listed below:</i></p> <p>LEMO F2 Fiber Optic Contacts LEMO 3K 93C Camera Connectors FUW.3K.93C.CLMC96 and PUW.3K.93C.CLCC96</p> <p>Signed:  Fiber Optics Unit of Research Date: <u>10.04.2002.</u></p>	 <p>Test Report Analysis & Research Center</p> <p>Page 1/3</p> <p>Report No. : 110506-02-05 Client : Fostec Inc. #703-33 Shinchon-Dong, Siheung, Gyeonggi 429-828 Republic of Korea</p> <p>The following merchandise was submitted and identified by the client :</p> <p>Commodity : Connector Boot, Cap - White (1c) Received date : May. 06, 2011 Test Performing date : May. 09, 2011 ~ May. 24, 2011 Issued date : May. 26, 2011 Test Performed : KQ11 tested the samples selected by applicant following results Test Results : For further details, Please Refer to following pages</p> <p>Testing Person:  B. Y. Lee  J. K. Kwon Lab Manager</p> <p>1110, Human Sky VileW, 959 Gwanak-Dong, Hwaran-Gu, Suwon-Si, Gyeonggi-Do, KOREA TEL:031327-4360 FAX:031327-4376 E-mail:kq11@kqi.co.kr Home:www.kqi.co.kr</p> <p><small>This test report is issued by a company subject to its General conditions of service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this test report shall only be the criteria for the test unless otherwise stated. This test report cannot be reproduced except in full without prior written permission of the company.</small></p>	<p>Issue number : 08-067-01 PAGE : (1 / 6)</p>  <p>1. Applicant Receipt No. : ETRI-DCR-08-106, 117, 118 Company Name : Fostec, Inc. Applicant Address : 703-33 Fostec B/D Shinchon-Dong Shihung-City Gyeonggi, 429-828, Korea Representative : Lee, Soo Young Receipt Date : May 04, 2008</p> <p>2. Use of Test Report : Reliability Verification</p> <p>3. Commodity/Quantity : Attenuator (5 dB), 11 ea</p> <p>4. Test Items : Temperature Cycling Test</p> <p>5. Condition prior to the test : Visual inspection and Optical characteristics are a normal state</p> <p>6. Test Methods : Telcordia GR-1221-CORE, GR-910-CORE</p> <p>7. Test Date : May 20, 2008 ~ June 05, 2008</p> <p>8. Test Results : See Appendix</p> <p>Note : The test relates only for the samples provided by the applicant. Copies of this report are not valid.</p> <p>Test Engineer :  Yoo Kwang Technical Manager :  Yu Chong  Lee Hye Jin</p> <p>This test report is endorsed under the scope of accreditation by AZLA (American Association for Laboratory Accreditation, TESTING CERT #2443.01, 2443.02) in U.S.A.</p> <p>June 09, 2008</p> <p>ETRI Optical Communications Research Center</p> <p>1110-6 Oryong-dong, Buk-gu, Gwangju, Korea +82-62-970-6555</p>

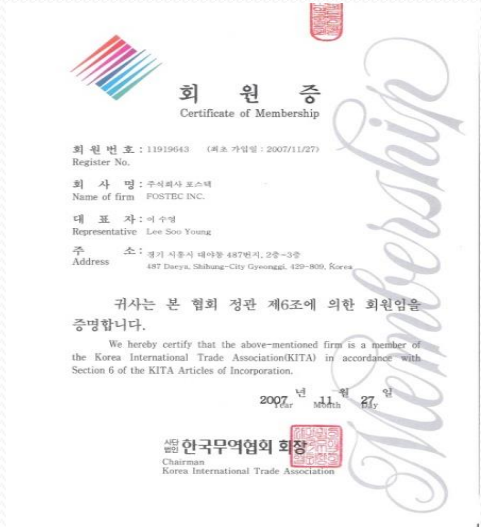
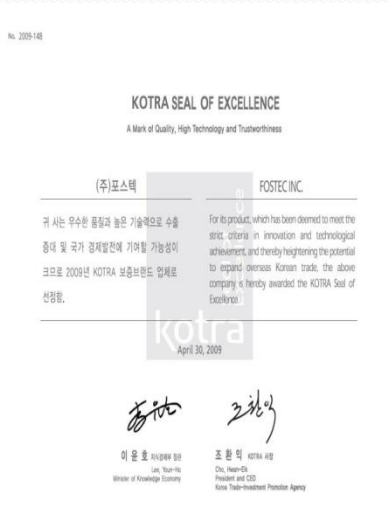
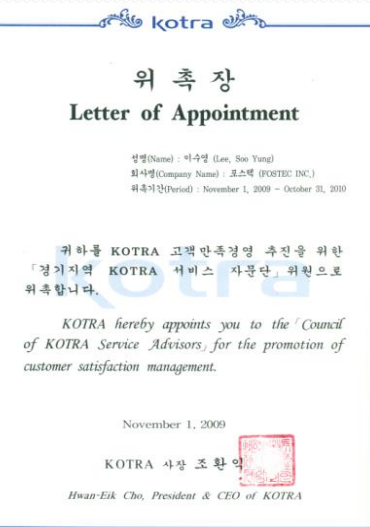
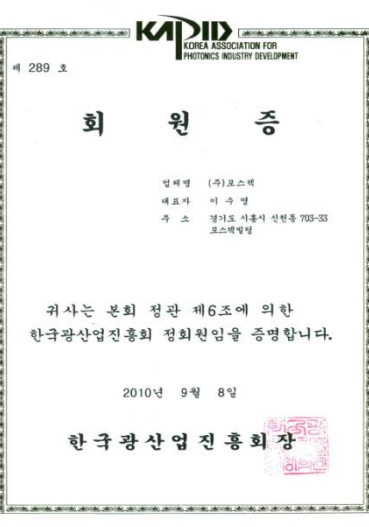
Local Certificate

MAIN BIZ	INNO BIZ	Information and Communication Equipment	R&D Center
 <p>제 090901-03615 호 경영혁신형 중소기업(MAIN-BIZ) 확인서 업체명 : (주)포스텍 대표자명 : 이수영 주소 : 경기 시흥시 신현동 703-33, 포스텍빌딩 유효기간 : 2009.10.21 ~ 2012.10.20</p> <p>위 업체는 경영혁신형 중소기업 발굴 육성사업에 의해 선정된 경영혁신형 중소기업(MAIN-BIZ)임을 확인합니다.</p> <p>2009년 11월 20일 중소기업청</p>	 <p>제 R7061 - 1106 호 기술혁신형 중소기업(INNO-BIZ) 확인서 업체명 : (주)포스텍 대표자 : 이수영 주소 : 경기 시흥시 신현동 703-33, 포스텍빌딩 등급 : A 유효기간 : 2010. 3. 22 ~ 2013. 3. 21</p> <p>위 업체는 기술혁신형 중소기업 발굴 육성사업에 의해 선정된 기술혁신형 중소기업(INNO-BIZ)임을 확인합니다.</p> <p>2010년 3월 19일 중소기업청</p>	 <p>원서문서확인번호: 0151-L104-7A50-0932 정보통신기기 인증서 Certificate of Information and Communication Equipment 인증종류: 특허유형(Type Approved) 증명되는 상호: (주)포스텍 Trade Name or Applicant 기기명칭: Patch Panel 24Port Equipment Name 기기모델명: FSP-24P Model Number of Equipment 인증번호: FIC-FSP-24P Certification No. 제조자 및 제조국가: (주)포스텍/한국 Manufacturer and Country of Origin 인증년월일: 2007년(Year) 09월(Month) 09일(Date) Date of Certification 기타: 타</p> <p>Others</p> <p>위 기기는 정보통신기기 인증규칙에 의해 인증되었음을 증명합니다. It is certified that foregoing equipment has been certificated under the provisions of the Regulations on Certification of Information and Communication Equipment.</p> <p>2007년(Year) 09월(Month) 09일(Date) 권파연구소장 Director General of Radio Research Laboratory Ministry of Information and Communication Republic of Korea</p>	 <p>제 20081094 호 기업부설연구소인증서 1. 연구소명: (주)포스텍 부설연구소 [소속기업명: (주)포스텍] 2. 소재지: 경기 시흥시 신현동 703-33 포스텍 B/D 1층, 3층 3. 신고연월일: 2007년 12월 20일 (최초인정일: 2008년 1월 15일)</p> <p>* 인정내역: 소재지 변경: 2010년 12월 6일</p> <p>기술개발촉진법 제16조 및 동법 시행령 제15조 제1항의 규정에 의하여 위와 같이 기업부설연구소로 인정합니다.</p> <p>2010년 12월 6일 koita 한국산업기술진흥협회장</p>
<p>Small and Medium Business Association</p>	<p>Small and Medium Business Association</p>	<p>Ministry of Information and Communication</p>	<p>Korea Industrial Technology Association (KOITA)</p>

Local Certificate

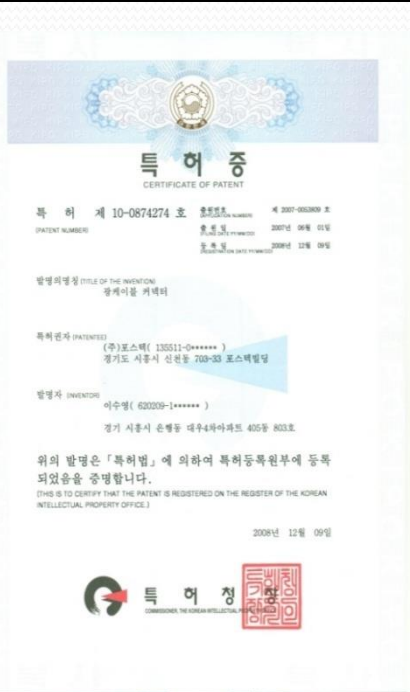
Venture Company	Prospective SME	SMBA Promising Export Firm	Frontier Company
 <p>제 20090110708 호</p> <h3>벤처기업확인서</h3> <p>업 체 명 : (주)포스텍 대 표 자 : 이수영 스 재 지 : 경기 시흥시 신원동 703-33, 포스텍빌딩 확 인 유 형 : 기술평가보증기업(기술보증기금) 평 가 기 관 : 기술보증기금 유 효 기 간 : 2009년 12월 12일 ~ 2011년 12월 11일</p> <p>위 업체는 벤처기업육성에관한특별조치법 제25조의 규정에 의하여 벤처기업임을 확인합니다.</p> <p>2009년 12월 02일</p> <p>KIBO 기술보증기금 이사장</p>	 <p>제 2006 - 134 호</p> <h3>인 증 서</h3> <p>(주)포스텍</p> <p>귀 업체를 2006년도 경기도 유망중소기업으로 선정하였기에 인증서를 교부합니다.</p> <p>경 기 도 지 사</p>	 <p>수출유망중소기업지정증</p> <p>제 2009 경기 - 201 호</p> <ul style="list-style-type: none"> <input type="checkbox"/> 업 체 명 : 주식회사 포스텍 (사업자등록번호: 134-81-69825) <input type="checkbox"/> 생산품목 : 광통신용배품 <input type="checkbox"/> 주 소 : 경기 시흥시 신원동703-33, 포스텍빌딩 <input type="checkbox"/> 대 표 자 : 이수영 (주민등록번호 : 620209 - *****) <p>귀 업체는 중소기업수출지원센터의 설치 및 운영에 관한 규정에 따라 2009년도 수출유망중소기업으로 지정함.</p> <p>지정기간: 2009. 12. 1 ~ 2011. 11. 30</p> <p>경기지방중소기업청장</p>	 <p>제 2009 - 56 호</p> <h3>인 증 서</h3> <p>(주)포스텍</p> <p>귀사를 경기 인터넷무역 프런티어 기업으로 선정하였기에 인증서를 드립니다.</p> <p>[인증기간: 2009. 4. ~ 2011. 4.]</p> <p>경기도지사 김 문</p>
Korea Technology Credit Guarantee Fund	Governor of Gyeonggi Province	Small and Medium Business Association	Governor of Gyeonggi Province

Local Certificate

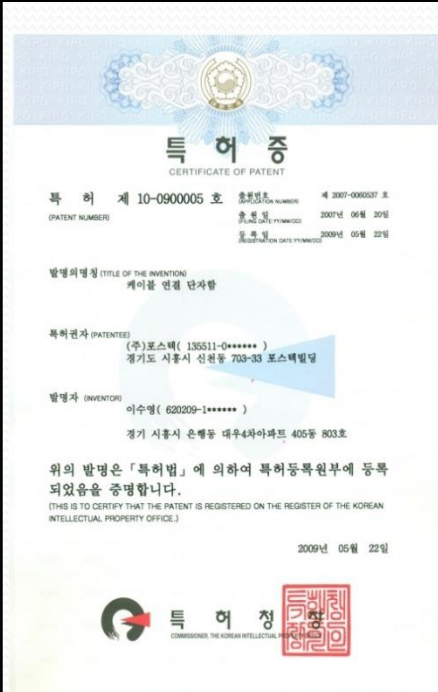
Membership Certificate	KOTRA Seal of Excellence Company	KOTRA Advisory Committee Appointment	Membership Certificate
 <p>회원번호 : 11919643 (최초 가입일 : 2007/11/27) Register No. 회사명 : 주식회사 포스텍 Name of firm : FOSTEC INC. 대표자 : 이수영 Representative : Lee Sun-Young 주소 : 경기 시흥시 대야동 487번지 2층-3호 Address : 487 Daerya, Shihung-City Gyeonggi, 429-809, Korea</p> <p>귀사는 본 협회 정관 제6조에 의한 회원임을 증명합니다. We hereby certify that the above-mentioned firm is a member of the Korea International Trade Association(KITA) in accordance with Section 6 of the KITA Articles of Incorporation.</p> <p>2009년 4월 30일 새만민 한국무역협회 회장 Chairman Korea's International Trade Association</p>	 <p>No. 2009-148</p> <p>KOTRA SEAL OF EXCELLENCE A Mark of Quality, High Technology and Trustworthiness</p> <p>(주)포스텍 FOSTEC INC.</p> <p>귀사는 우수한 품질과 높은 기술력으로 수출 증가 및 국가 경제발전에 기여할 가능성이 크므로 2009년 KOTRA 보증브랜드 업체로 선정함.</p> <p>For its product, which has been deemed to meet the strict criteria in innovation and technological achievement, and thereby heightening the potential to expand overseas Korean trade, the above company is hereby awarded the KOTRA Seal of Excellence.</p> <p>4월 30, 2009</p> <p>이윤호 차장 Lee, Sun-Young Director of Knowledge Economy</p> <p>조원익 KOTRA A/E Cho, Hwan-Eik President and CEO Korea Trade-Investment Promotion Agency</p>	 <p>kotra</p> <p>위촉장 Letter of Appointment</p> <p>성명(Name) : 이수영 (Lee, Soo Young) 회사명(Company Name) : 포스텍 (FOSTEC INC.) 위촉기간(Period) : November 1, 2009 ~ October 31, 2010</p> <p>귀하를 KOTRA 고객만족경영 추진을 위한 「경기지역 KOTRA 서비스 자문단」 위원으로 위촉합니다.</p> <p>KOTRA hereby appoints you to the 'Council of KOTRA Service Advisors' for the promotion of customer satisfaction management.</p> <p>November 1, 2009</p> <p>KOTRA 사장 조환익 Hwan-Eik Cho, President & CEO of KOTRA</p>	 <p>제 289 호 KAPID KOREA ASSOCIATION FOR PHOTONICS INDUSTRY DEVELOPMENT</p> <p>회원증</p> <p>임제영 (주)포스텍 대표자 이수영 주소 경기도 시흥시 신안동 703-33 포스텍빌딩</p> <p>귀사는 본회 정관 제6조에 의한 한국광산업진흥회 정회원임을 증명합니다.</p> <p>2010년 9월 8일</p> <p>한국광산업진흥회장</p>
Korea International Trade Association	Korea Trade-Investment Promotion Agency	Korea Trade-Investment Promotion Agency	Association for Photonics Industry Development

Patents

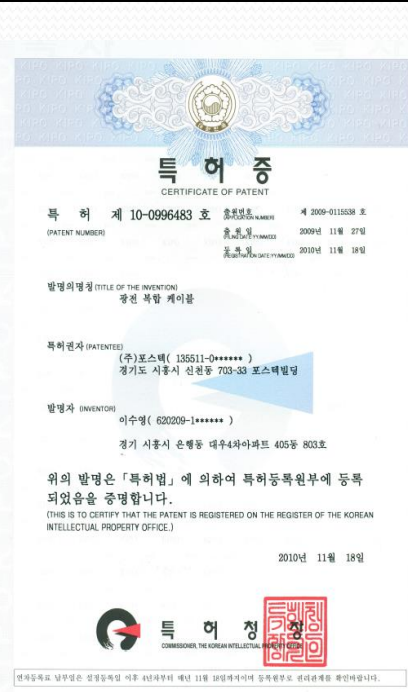
Fiber Optic Connector



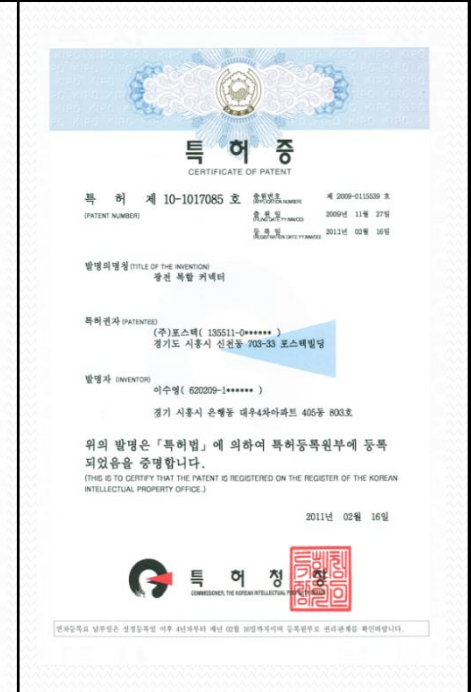
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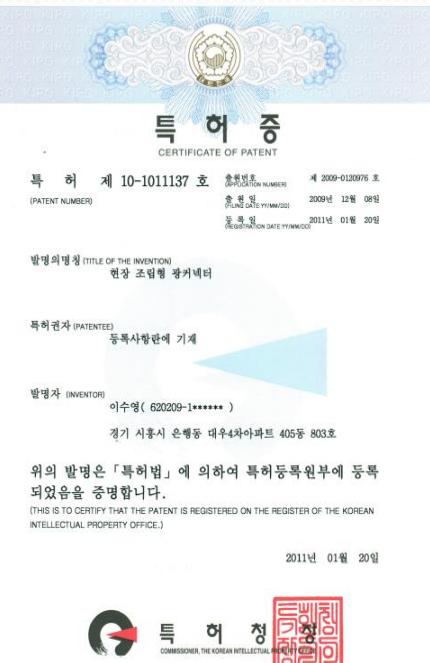
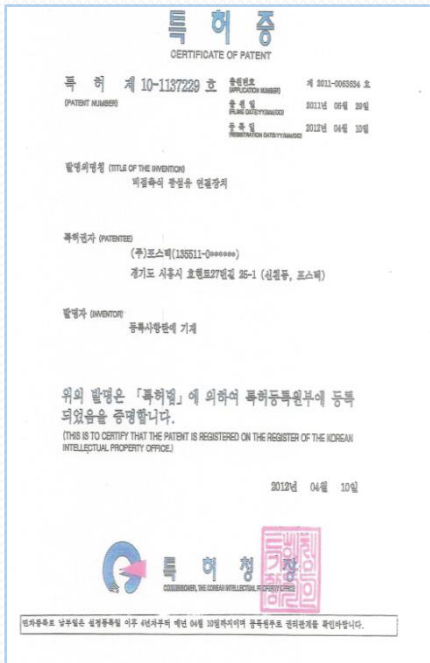
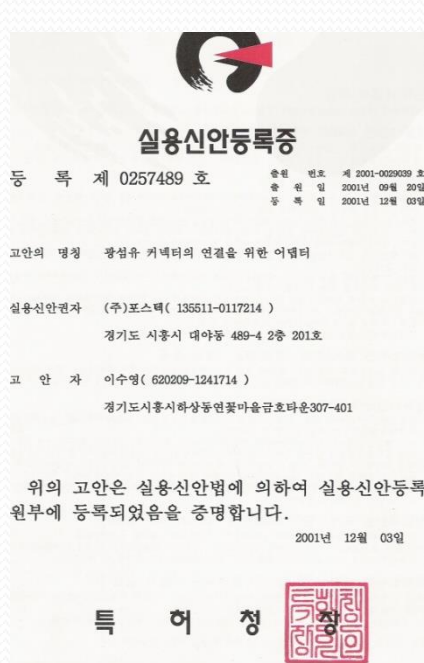
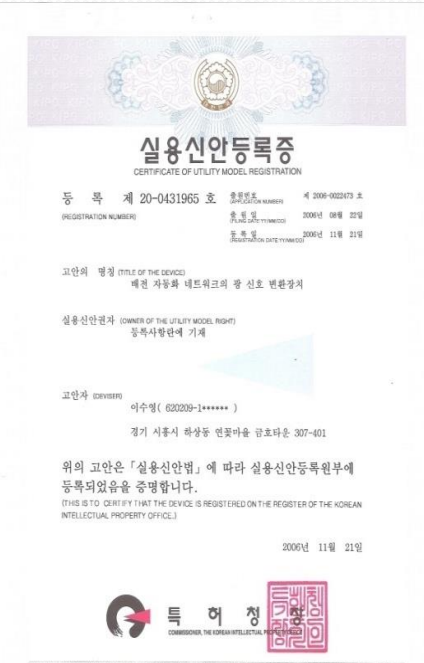
Hybrid Cable



Hybrid Connector



Patents

Fiber Optic Field Connector	Noncontact optical fiber connector	Utility Model Fiber Optic Connector	Automated Distribution optical conversion device
 <p>특허증 CERTIFICATE OF PATENT</p> <p>특허 제 10-1011137 호 (PATENT NUMBER)</p> <p>출원번호 제 2009-0120078 호 출원일 2009년 12월 08일 등록일 2011년 01월 20일</p> <p>발명의명칭 (TITLE OF THE INVENTION) 원장 조립형 광커넥터</p> <p>특허권자 (PATENTEE) 등록사항만에 기재</p> <p>발명자 (INVENTOR) 이수영 (620209-1*****) 경기 시흥시 은행동 대우4차아파트 405동 803호</p> <p>위의 발명은 「특허법」에 의하여 특허등록원부에 등록되었음을 증명합니다. (THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)</p> <p>2011년 01월 20일</p> <p>특허청 COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE</p> <p>전자등록료 납부일은 출원일인 이후 4년차부터 매년 03월 31일까지이며 등록원부도 관리원에게 확인하십시오.</p>	 <p>특허증 CERTIFICATE OF PATENT</p> <p>특허 제 10-1187229 호 (PATENT NUMBER)</p> <p>출원번호 제 0011-000806 호 출원일 2011년 09월 29일 등록일 2012년 04월 10일</p> <p>발명의명칭 (TITLE OF THE INVENTION) 비접촉식 광섬유 연결장치</p> <p>특허권자 (PATENTEE) (주)포스텍(135511-0*****) 경기도 시흥시 은행로27번길 25-1 (신원동, 포스텍)</p> <p>발명자 (INVENTOR) 등록사항만에 기재</p> <p>위의 발명은 「특허법」에 의하여 특허등록원부에 등록되었음을 증명합니다. (THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)</p> <p>2012년 04월 10일</p> <p>특허청 COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE</p> <p>전자등록료 납부일은 출원일인 이후 4년차부터 매년 04월 30일까지이며 등록원부도 관리원에게 확인하십시오.</p>	 <p>실용신안등록증 CERTIFICATE OF UTILITY MODEL REGISTRATION</p> <p>등록 제 0257489 호 (REGISTRATION NUMBER)</p> <p>출원번호 제 2001-0029009 호 출원일 2001년 09월 20일 등록일 2003년 12월 03일</p> <p>고안의 명칭 (TITLE OF THE DEVICE) 광섬유 커넥터의 연결을 위한 어댑터</p> <p>실용신안권자 (주)포스텍(135511-0117214) 경기도 시흥시 대야동 489-4 2층 201호</p> <p>고안자 이수영(620209-1241714) 경기도시흥시하상동연꽃마을금호타운307-401</p> <p>위의 고안은 실용신안법에 의하여 실용신안등록원부에 등록되었음을 증명합니다. (THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)</p> <p>2001년 12월 03일</p> <p>특허청 COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE</p> <p>이 실용신안법은 실용신안법 제44조에 의거 실용신안법 제25조제2항에 의한 등록유지결정을 받지 아니한 경우에는 이 실용신안권의 침범과 등에 대하여 그 권리를 행사할 수 없습니다.</p>	 <p>실용신안등록증 CERTIFICATE OF UTILITY MODEL REGISTRATION</p> <p>등록 제 20-0431965 호 (REGISTRATION NUMBER)</p> <p>출원번호 제 2006-0020473 호 출원일 2006년 08월 22일 등록일 2006년 11월 21일</p> <p>고안의 명칭 (TITLE OF THE DEVICE) 배선 자동화 네트워크의 광 신호 변환장치</p> <p>실용신안권자 (OWNER OF THE UTILITY MODEL RIGHT) 등록사항만에 기재</p> <p>고안자 INVENTOR 이수영(620209-1*****) 경기 시흥시 하상동 연꽃마을 금호타운 307-401</p> <p>위의 고안은 「실용신안법」에 따라 실용신안등록원부에 등록되었음을 증명합니다. (THIS IS TO CERTIFY THAT THE DEVICE IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)</p> <p>2006년 11월 21일</p> <p>특허청 COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE</p> <p>이 실용신안법은 「실용신안법」 제44조에 의거 「실용신안법」 제25조제2항에 의한 등록유지결정을 받지 아니한 경우에는 이 실용신안권의 침범과 등에 대하여 그 권리를 행사할 수 없습니다.</p>

Fiber Optics Technology

Thank you.

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