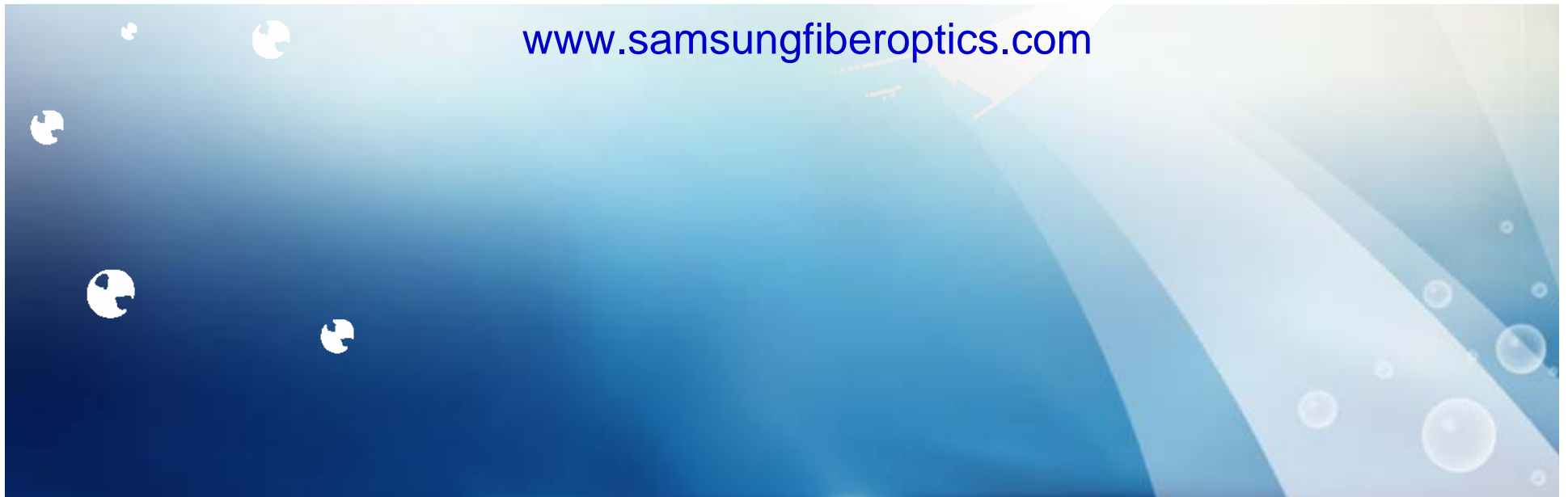




SAMSUNG FIBEROPTICS

www.samsungfiberoptics.com



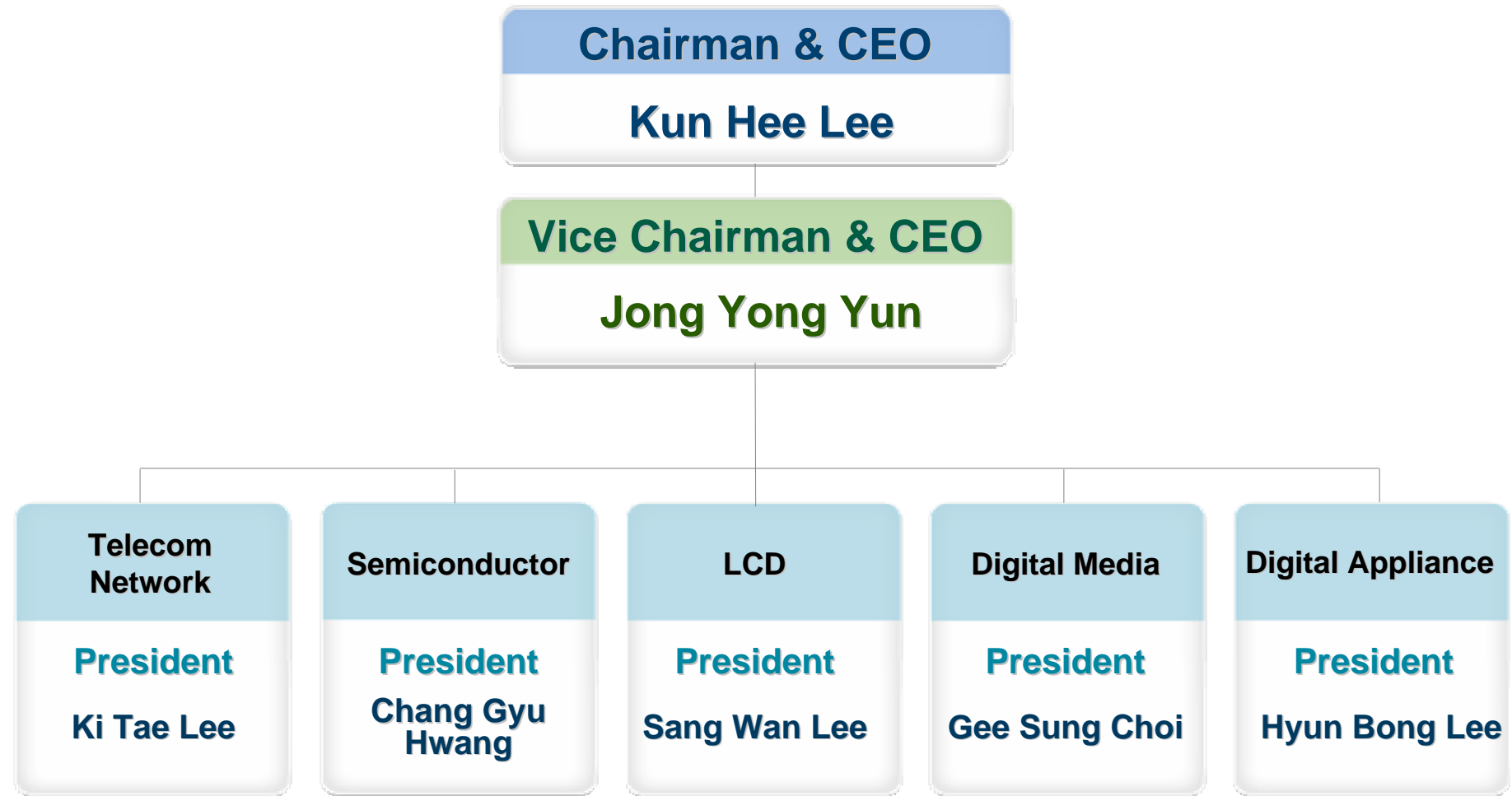
1 *Samsung Electronics Overview*

2 *Samsung Fiberoptics Overview*

3 *Samsung Fiberoptics Products*

4 *Samsung Fiberoptics FTTH*

Organization



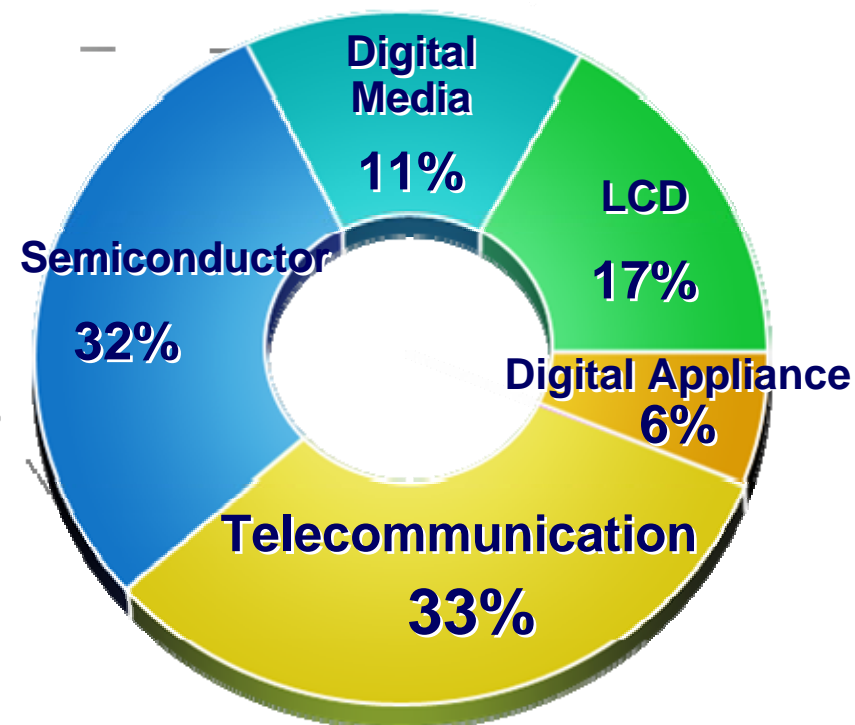
FIBEROPTICS

Continuous Growth in Revenue

Annual Growth



Breakdown



(Parent only basis excluding Financial Affiliates)

Sustaining High Profitability

Operating Profit



Operating Margin



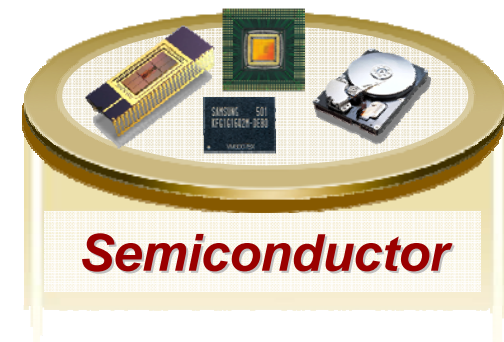
(Parent only basis excluding Financial Affiliates)

Business Areas

SAMSUNG



5 Business Areas



Leading Products

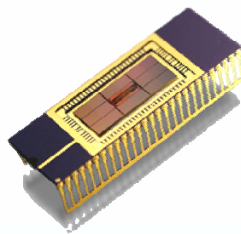
SAMSUNG

Handset



Market Share
12.6%

DRAM



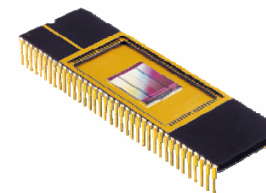
Market Share
32.1%

SRAM



Market Share
24.0%

Flash



Market Share
34.0%

DDI



Market Share
18.0%

MCP



Market Share
29.0%

TFT LCD (Large Size Area)



Market Share
20.0%

Color Monitor



Market Share
22.3%

Brand Status

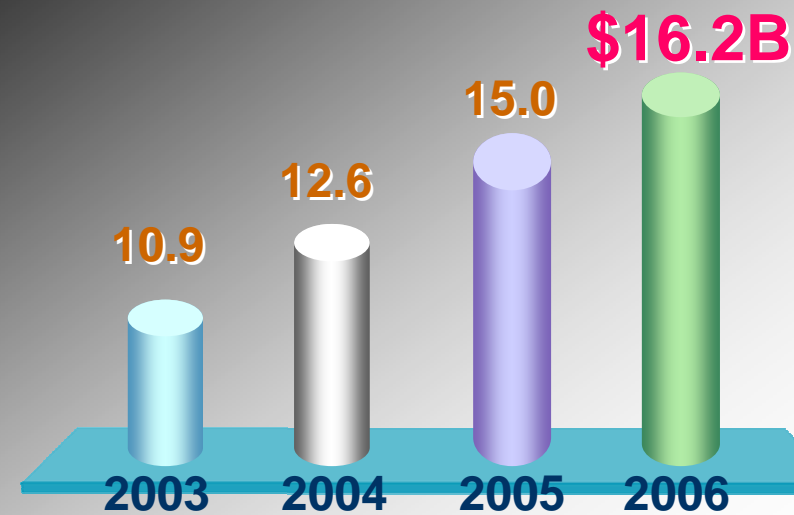
SAMSUNG

The 100 Top Brands (2006)

Rank	Company
1	COCA-COLA
2	MS
3	IBM
4	GE
5	INTEL
.	.
.	.

20	SAMSUNG
26	SONY

2006 Brand Value



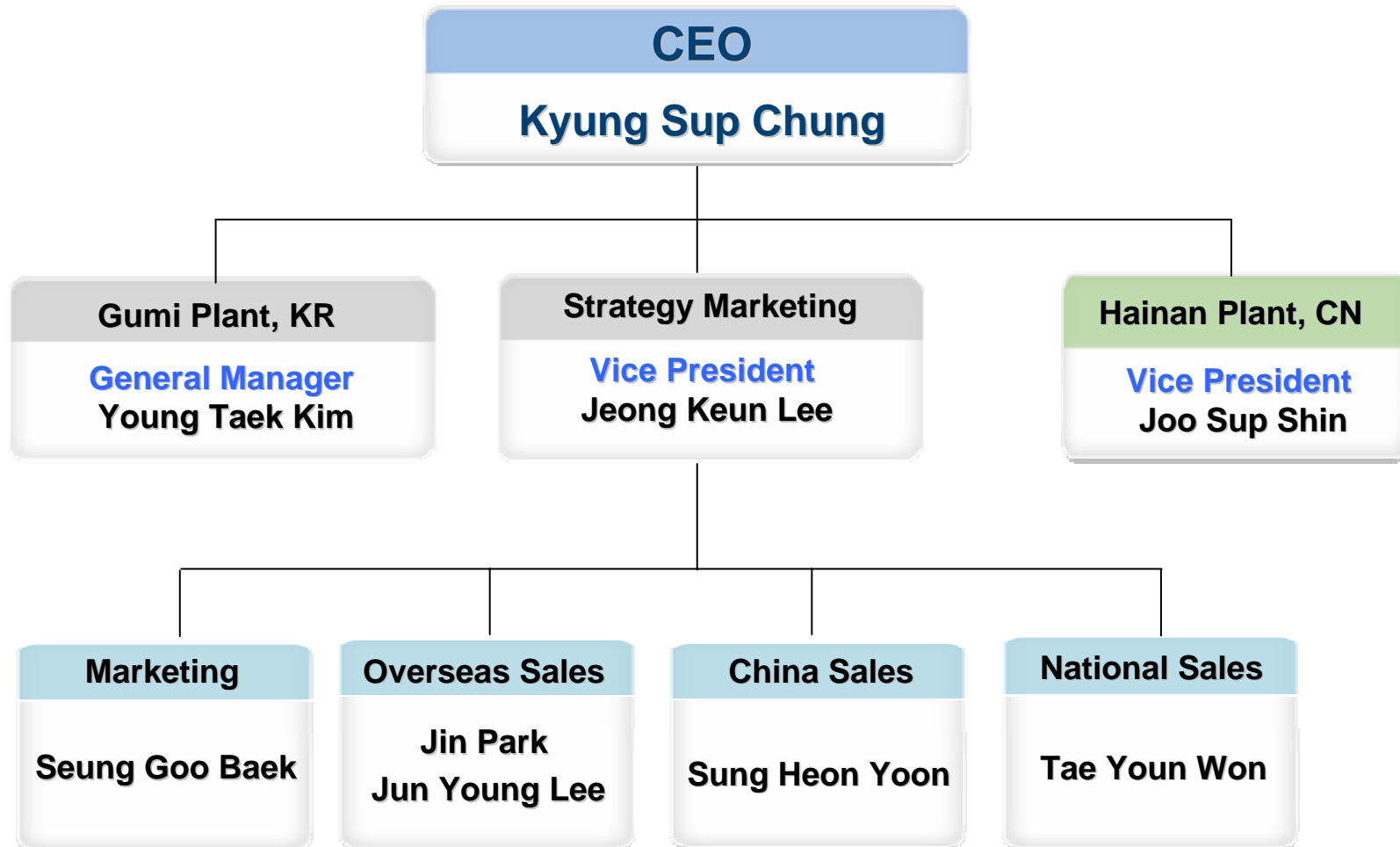
1 *Samsung Electronics Overview*

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Organization



Production Base

SAMSUNG

Gumi City, Kyungbuk



Fiber & Cable

Haikou City, Hainan



Fiber & Cable

History

SAMSUNG



- 2006 : New Manufacturing Process of Fiber Developed
- 2005 : Major Supplier of TOT (\$ 40M)
- 2004 : New Hainan (China) Factory Invested
- 2002 : Sole Vendor for Network Rail FTN (\$ 45M)
- 2000 : Major Supplier for Adelphia and Comcast(\$ 76M)

- 1998 : Optical Cable Supply to TELKOM SA Ltd.
In S. Africa (\$ 35M)
- 1995 : Optical Cable Supply to Czech Telecom (\$ 80M)

- 1985 : Optical Fiber Export to USA
- 1984 : Optical Cable Supply to KT (Korean NO.1 Carrier)
- 1983 : Fiberoptics Division Established

Key Performance

SAMSUNG

*Samsung is globally field-proven,
reliable partner in Fiberoptics industry*

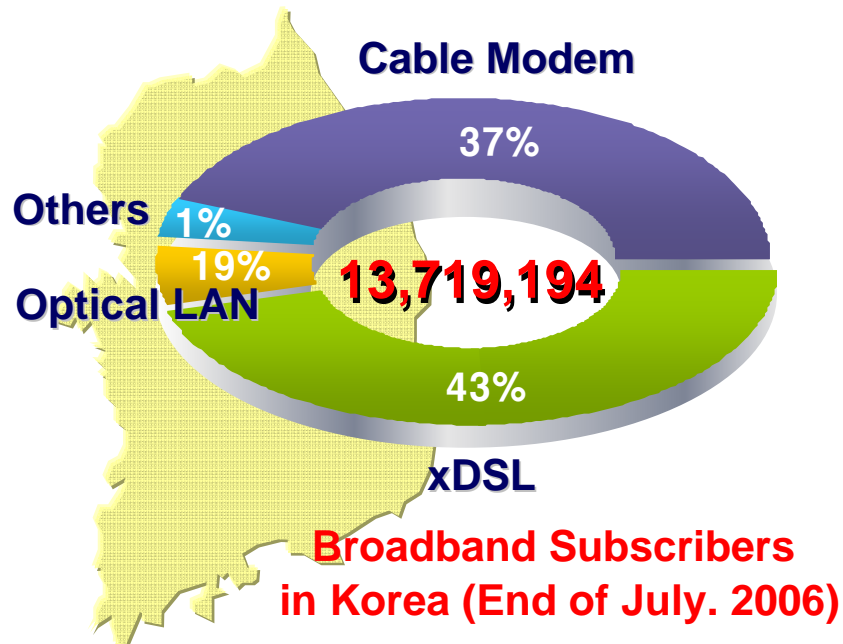


Broadband Leadership

SAMSUNG



KOREA



Korea is the number 1 in the penetration ratio (73%) of broadband service in the world.



~ 30% of nation's broadband networks have been deployed by Samsung optical fiber & cable

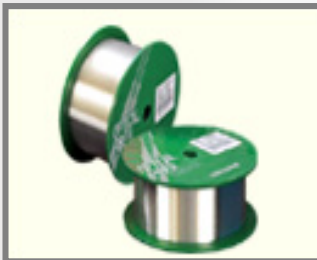
Vertically Integrated Line-up

SAMSUNG

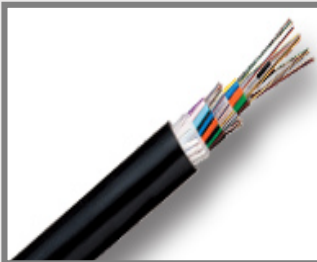
Preform



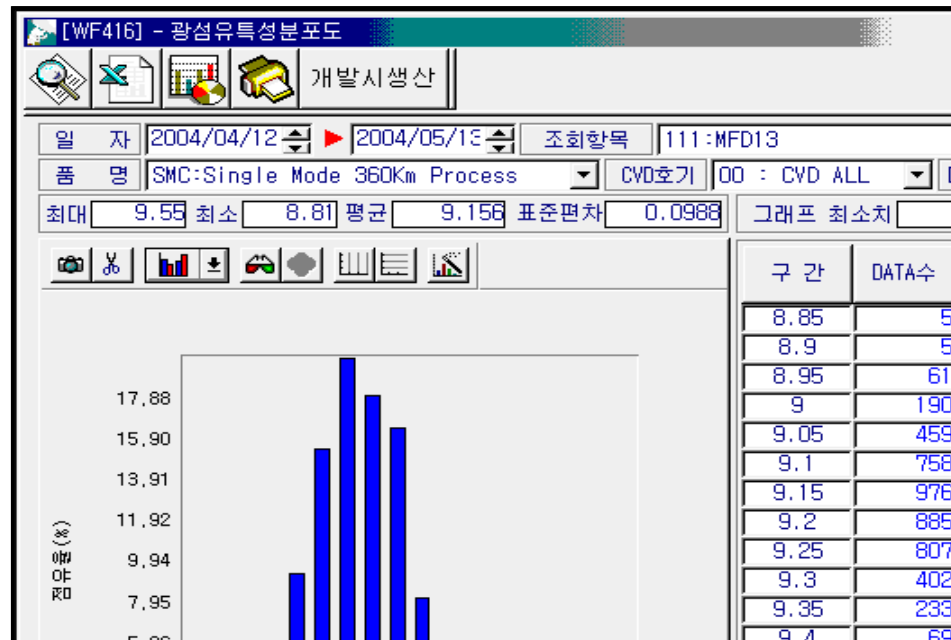
Fiber



Cable



- Superior quality from end-to-end, optimized process control
- Perfect trouble shooting of unexpected problems by historical database management



Technological Expertise



**In-Depth Knowledge & Experience
in Fiber & Cabling Parameters**



**The years of expertise in fiber, cable
design and manufacturing allows us to
provide optimized process**



**We'll make great efforts to create superior
products and services, thereby to surpass
customer's expectations all over the world**

Internationally Certified Quality

SAMSUNG

ISO 9001

- Optical fiber, Fiber optic cable
- Optical Component

ISO 14001 / OHSAS 18001

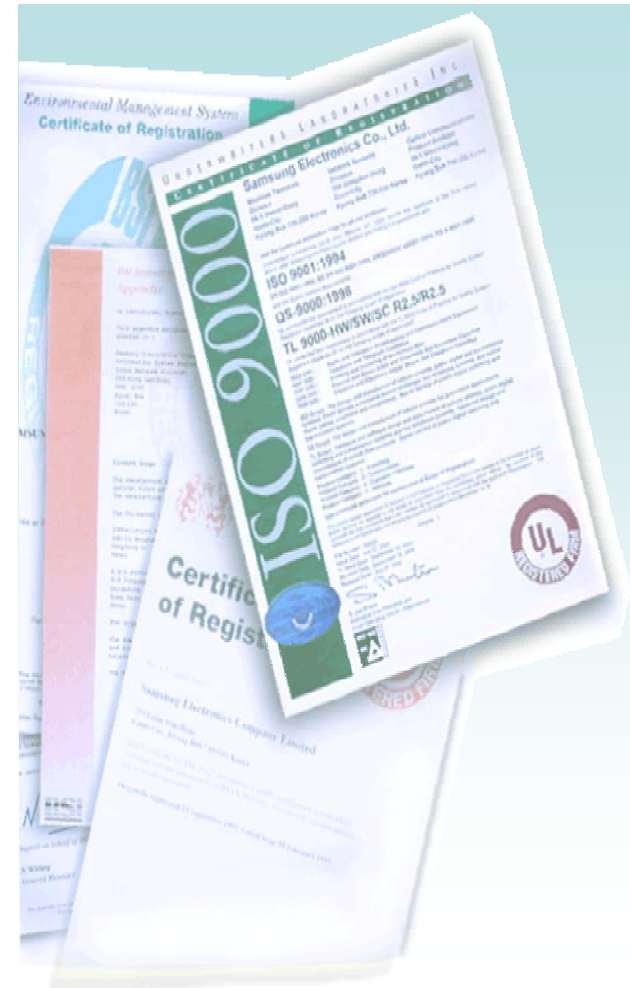
- Factory environment management system

TL 9000

- Optical fiber, Fiber optic cable
- Optical Connector

Telcordia

- GR-20 Optical fiber, cable



1 *Samsung Electronics Overview*

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Single Mode Fiber



Conventional Single Mode Fiber (G.652.B)

- Best-in-class optical & geometrical specification (Recently Enhanced)
- Excellent compatibility with other SMF fibers

WidePass™

Low Water Peak Fiber (G.652.C/D)

- 50% more wavelength spectrum, 33% more channels
- Outstanding long-term reliability



UltraPass™

Non-Zero Dispersion Shifted Fiber: Medium Dispersion (G.656)

- Optimized for high speed long haul transmission (2.5 ~ 40G/bs)
- Extended bandwidth(S+C+L-band)



Multi Mode Fiber



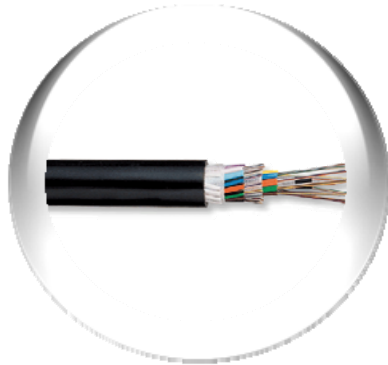
Conventional Multimode Fiber (50 & 62.5 um)

- 50/125 um: Min. 500/800 MHz.km(@ 850/1300 nm)
- 62.5/125 um: Min. 200/600 MHz.km(@ 850/1300 nm)
- Suitable for riser, plenum cable in premise network

1G 50 um Multimode Fiber (OM2)

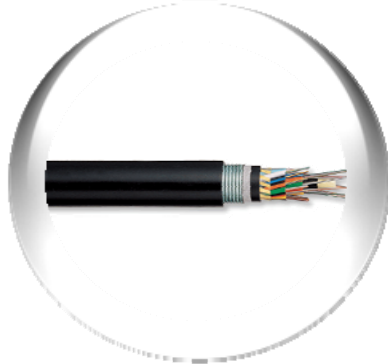
- Meets or exceeds IEEE802.3z standard
- Min. 600 m transmission at 850 nm & 1300 nm
- Effective Modal Bandwidth, Over-filled Launch Bandwidth: Min. 500 MHz.km

Loose Tube Cable



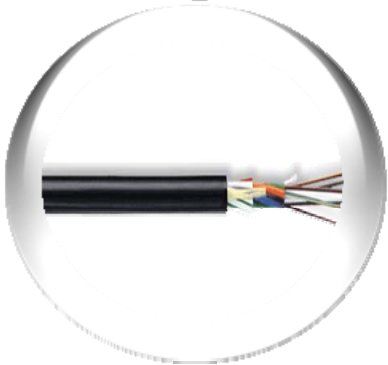
Non-Armored

- Up to 432 Fibers, Gel / Dry Core, Enhanced Sheath Materials, Proven Performance Design for Duct Application



Armored

- Steel Tape/Wire Armored Single/Double Jacket for Direct Burial/Aerial

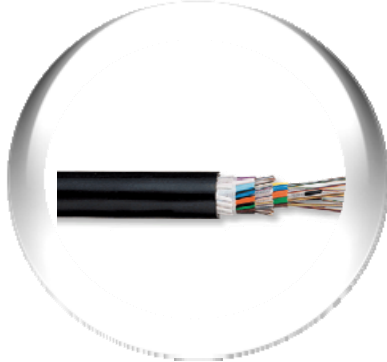
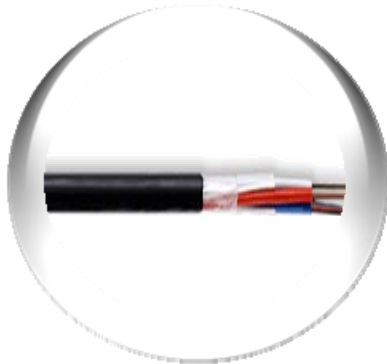


MiniLite™ Cable

- Loose tube cable with reduced diameter & weight
- Significant improvement in installation time means economic use of CAPEX



Loose Tube Cable



FastBlow™ Cable

- Micro cable for air blown installation or override application



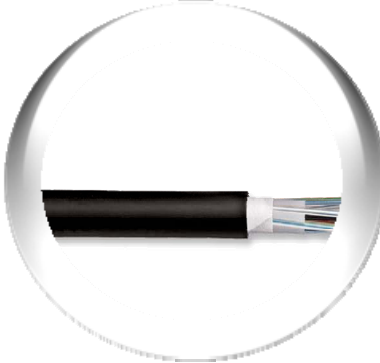
Low Smoke Zero Halogen Cable

- 2~288 Fibers
- Dry Core Design for Water Blocking



Ribbon in Loose Tube

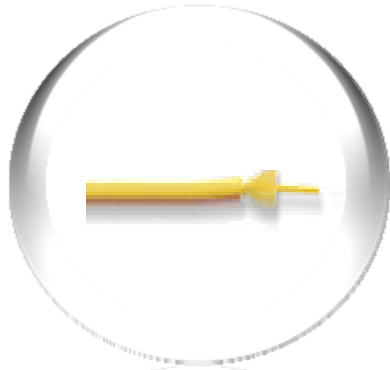
- Max. 864 Fibers
- Max 12-Fiber Ribbon for Mass Fusion Splicing
- Central Uni-Tube/ Multi-tube
- Gel-filled / Dry Core Design for Metro Area Network



Slotted Core Ribbon

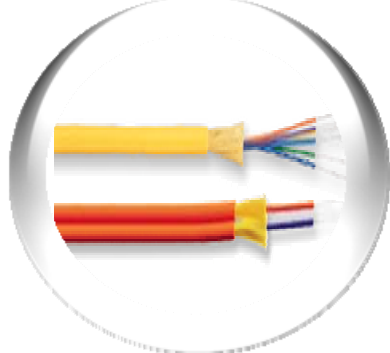
- Max. 1,000 Fibers
- 4,8-Fiber Ribbon
- Gel-filled / Dry Core Design for Metro Area Network

Premise Cable



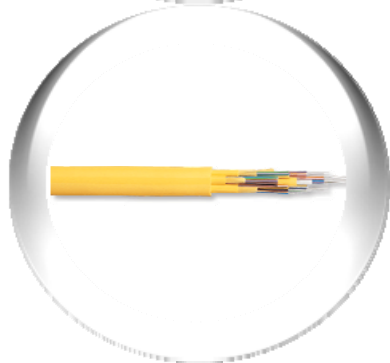
Simplex Cable

- Available both in single mode fiber type and multi-mode fiber type
- Highly flexible and lightweight for easy handling



Duplex Cable

- Two tight-buffered fibers in a small package
- Interconnect cable for riser and general purpose Indoor applications



Distribution Cable

- Sub-unit identification by number print on sheath
- TDR model, TDZ model

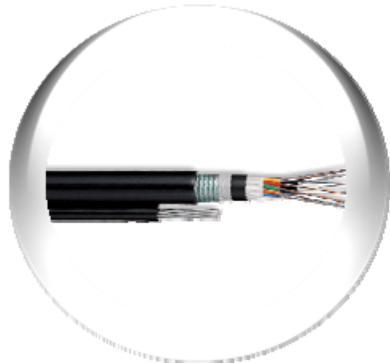
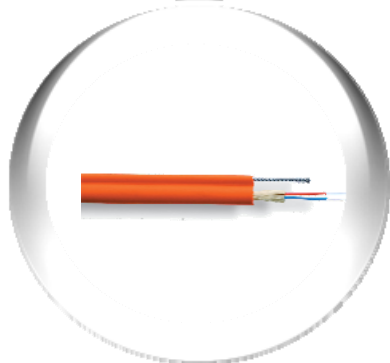


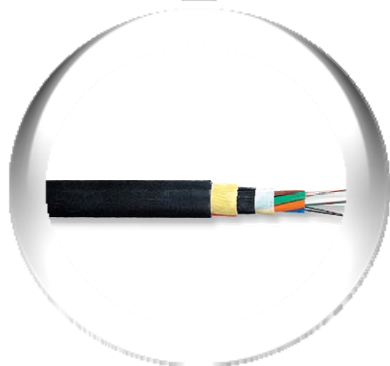
Figure- 8

- Steel Stranded Wire, Self-Supporting Design for Aerial Application



Drop Cable

- Up to 4 tight-buffered fibers in a small package
- FTTH Solution



ADSS Cable

- Max. 288 Fibers
- EFS Analysis to Avoid DBA with TRPE
- Complete Installation Guide (IEEE P1222)
- Anti-Bulletin Design Available

Optical Distribution Frame

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Connection
&
Distribution



Optical Distribution
Frame



Rack mounted ODF
& splice storage

Feature / Benefit

- Easy installation with angled adapter panel
- Easy splicing with removable cover
- Built-in storage drawer
- Lockable covers for security

Applications

- 19" Rack- mountable FDF
- 12, 24, 48, 72, 144 core available
- Changeable specification upon request

Optical Outlet



Connection
&
Distribution



Optical-UTP Hybrid

- SC 2port / RJ45 2port
- 100 X 130 X 30 mm



Optic 4port

- 147 x 88 x 30 mm



Optic 2 Port

- Wall-mounted type

Connector / Patch Cords

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Connection
&
Distribution



SC



FC



ST



SC Duplex Jumper
Cord Clip Design



LC Jumper Cord



MU Jumper Cord

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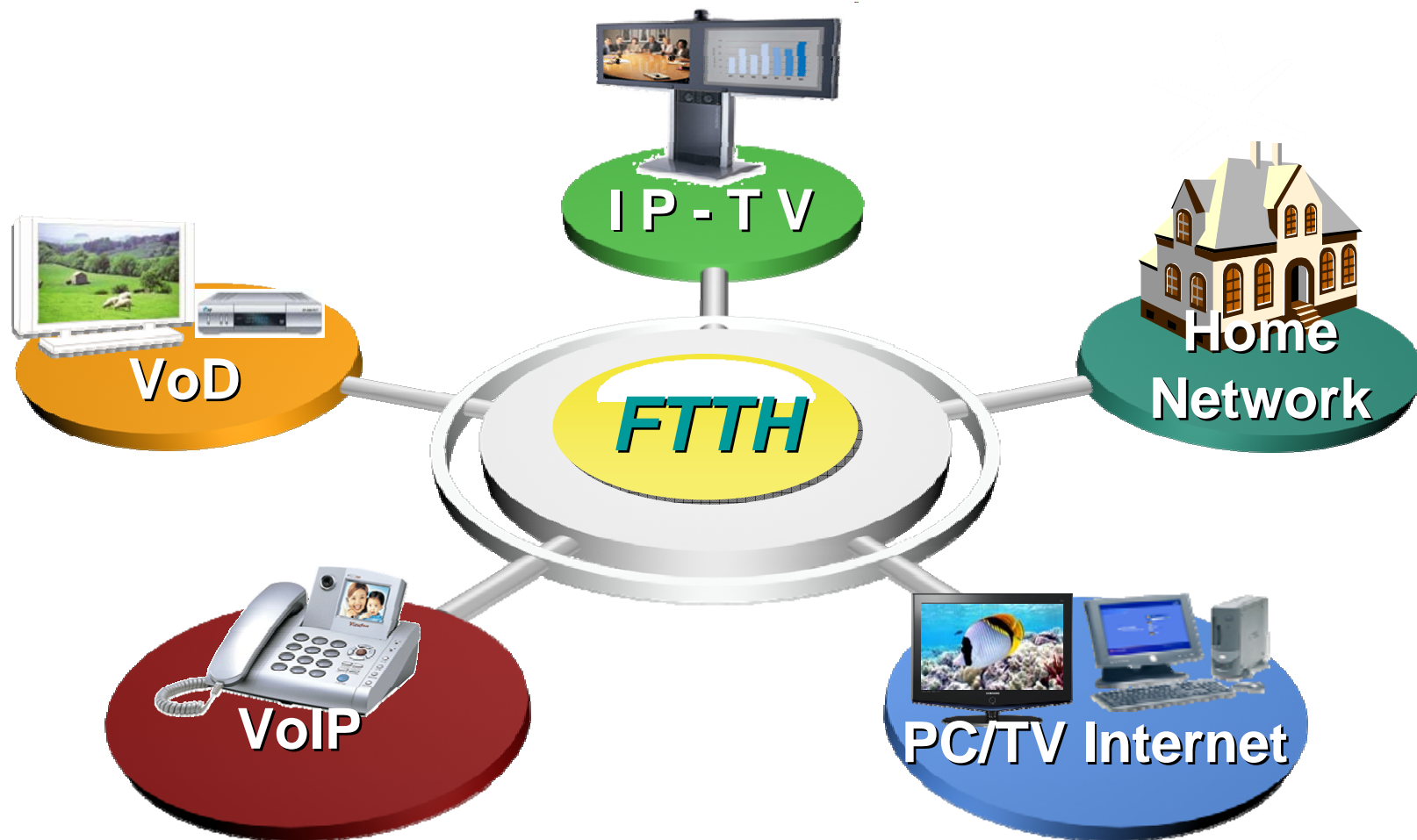
Samsung FTTH Solution



Service based on FTTH network

SAMSUNG

Over 100Mbps per subscriber, QoS guaranteed, TPS available



Global FTTH Deployment

SAMSUNG

US

- Verizon : 2.0 Mil. (Home pass) FTTP network in 2005
- SBC : 18 Mil. Capacity TPS network by 2007

Europe

- 25 countries, over 0.85 Mil. Subscribers under service
- 2.0 Mil. subscribers by 2008

Japan

- Currently Leading Country in the World
- “30Mil. Optical fiber access Customers by 2010”(NTT)

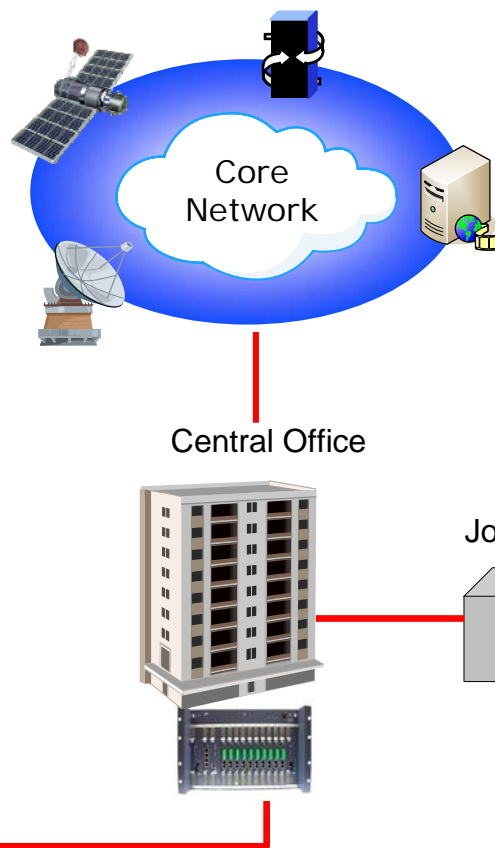
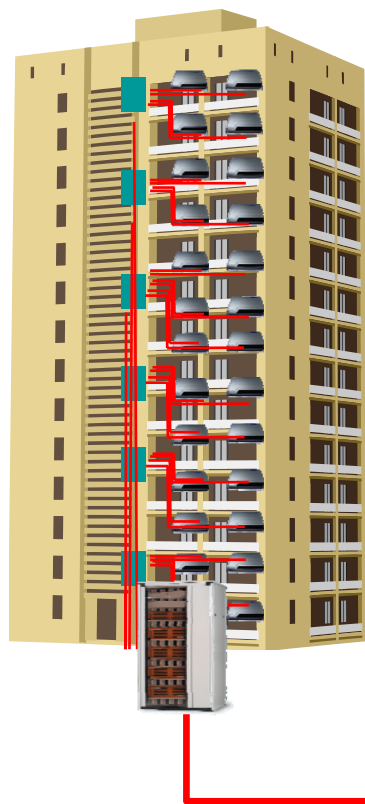
Korea

- 20 Mil. Broadband Subscribers by 2010
- IT building authentication system
- Special grade emblem : 4 core fiber + UTP

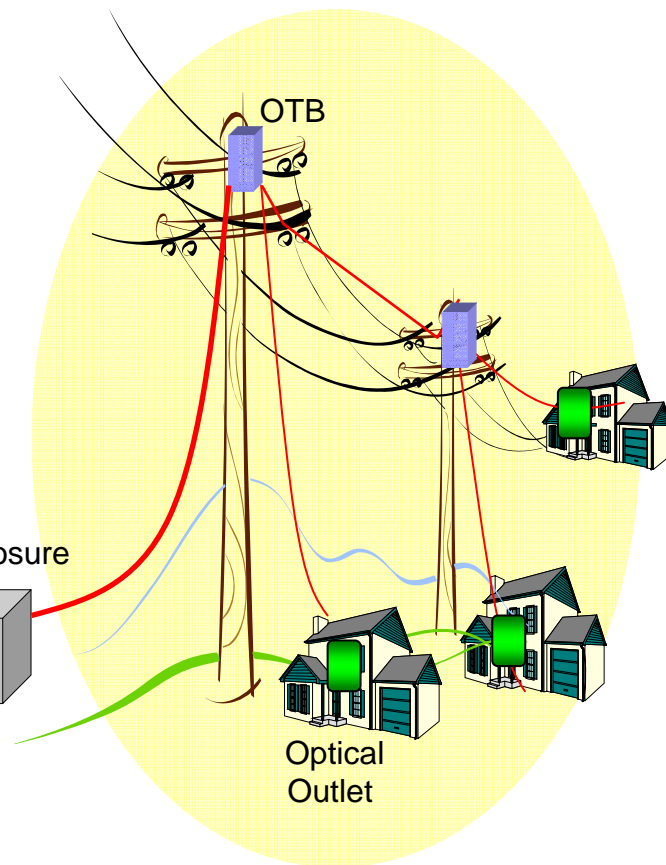
FTTH Architecture

SAMSUNG

Apartment Area ▶

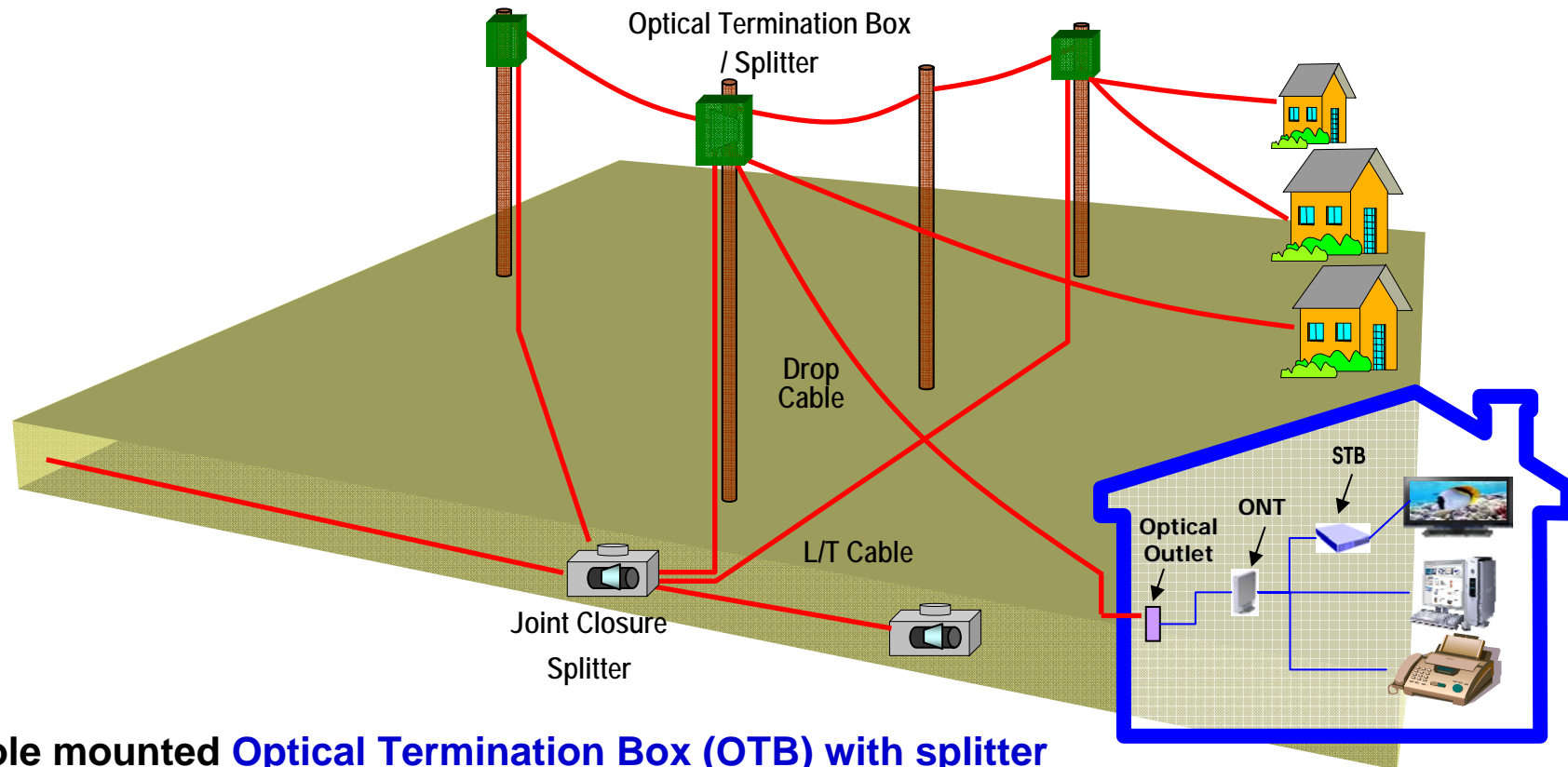


Single House Area ▶



FTTH Network [Korea]

SAMSUNG



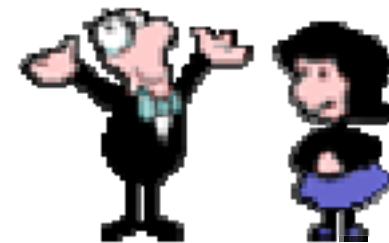
- Pole mounted **Optical Termination Box (OTB) with splitter**
- GE-PON system with 2-step splitter : 1X4 and 1X8
- Small size, Light weight **Drop cable with Bending Insensitive Fiber (BIF)**
- Use of **FA connector** for reducing labor cost
- KT Start to install from 2005
 - 2006 : 120,000 and 1.8Mil. by 2009 for detached house area

- ✓ **Vertically integrated full line-up for FTTx network**
- ✓ **Field proven quality products**
- ✓ **Offers the best “Performance – to – Cost” solution**

The End

SAMSUNG

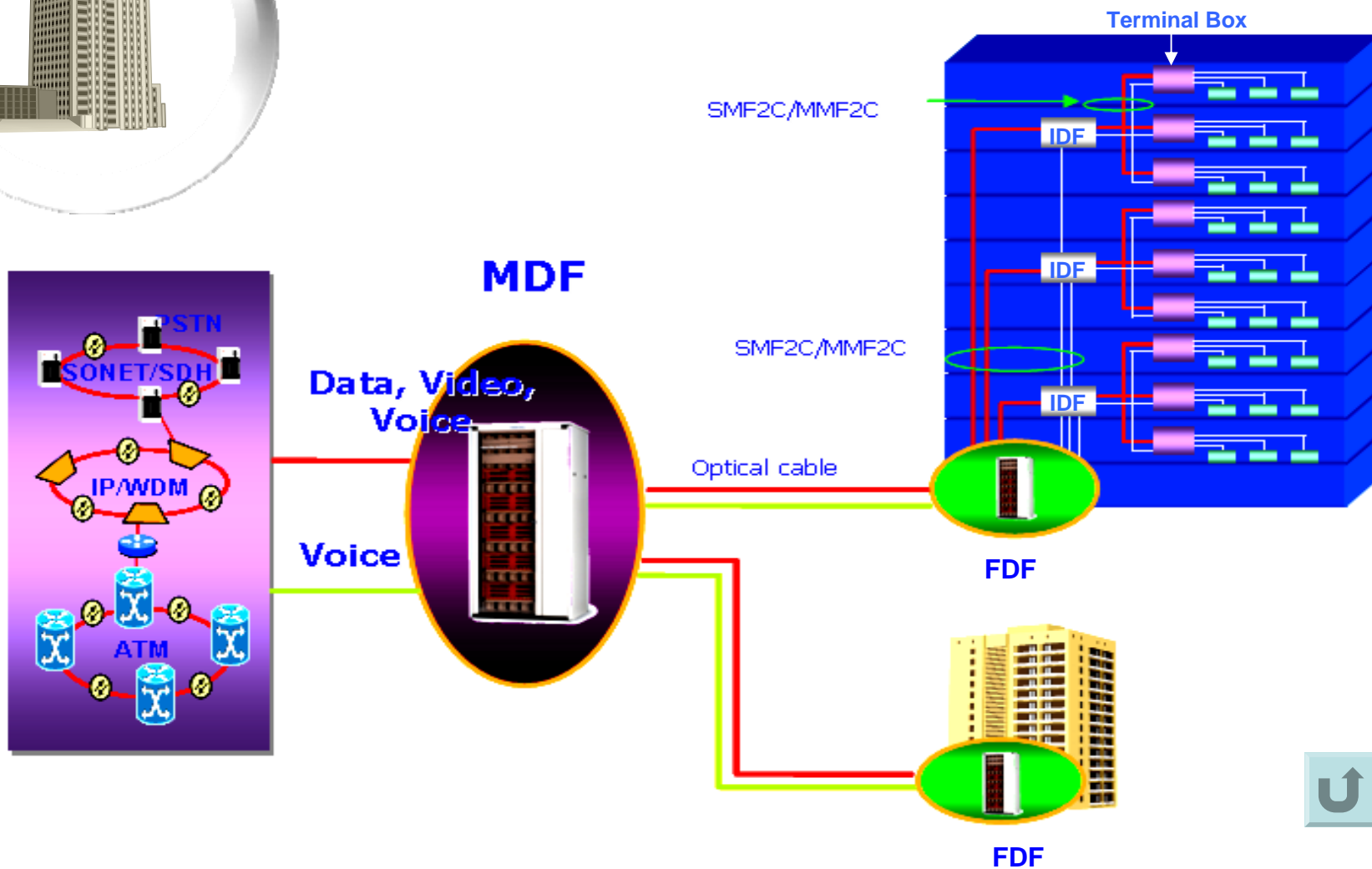
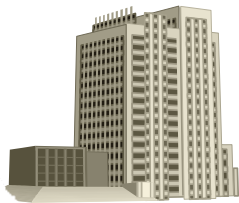
Thank You!



FTTH Network

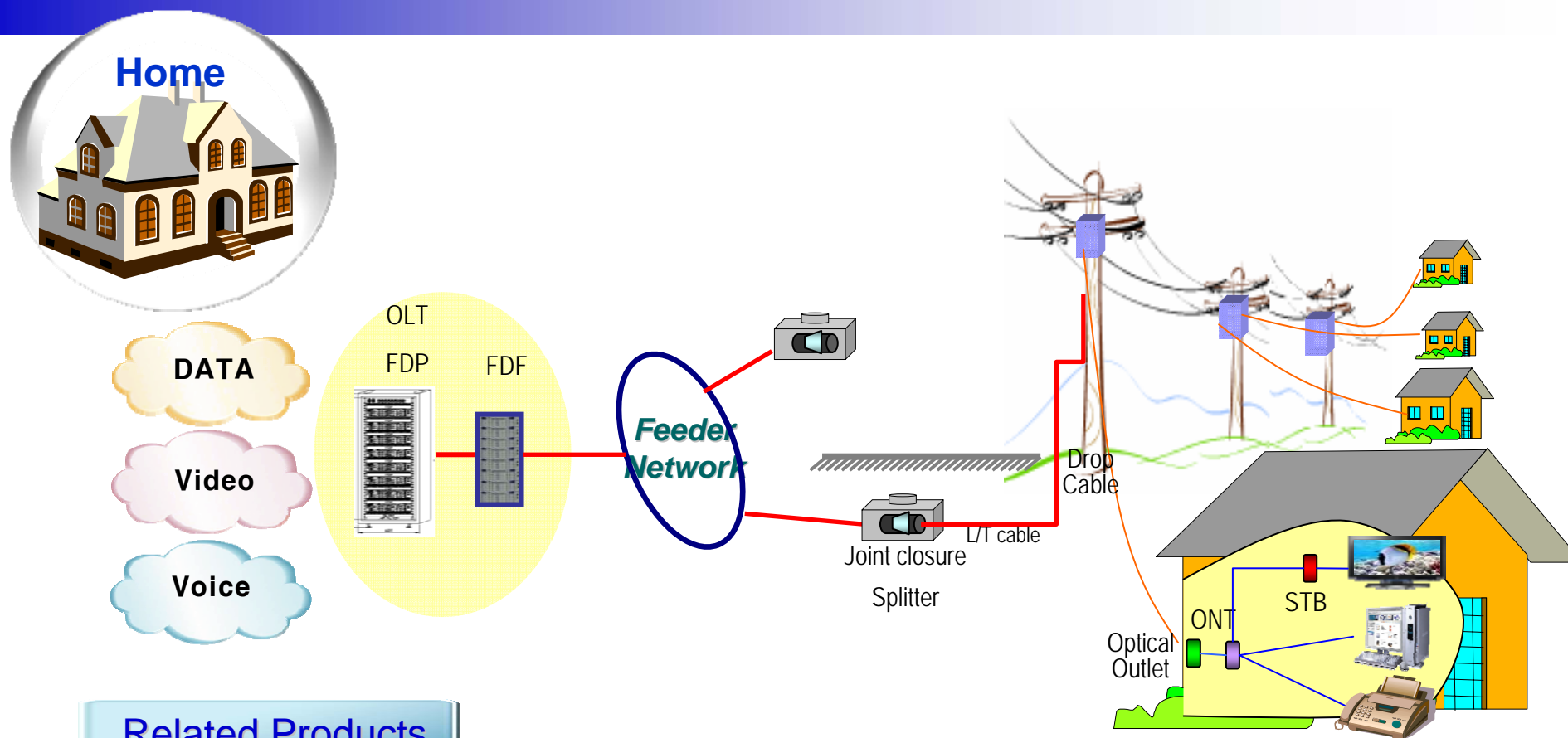
SAMSUNG

Apartment



FTTH Network

SAMSUNG



Related Products



LT cable



Joint closure



OTB



Splitter



Drop Cable



Patch cord



Optical Outlet

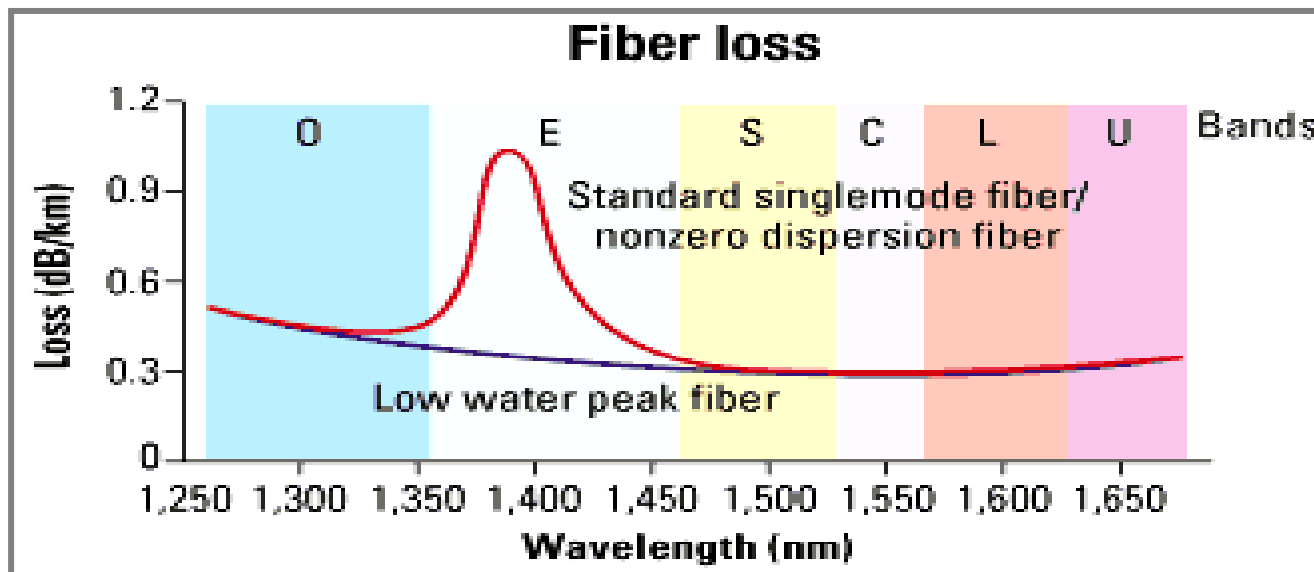


Highlighted Products

SAMSUNG

WidePass™ Fiber

- Low water peak fiber (G.652.C/D)
- Guaranteed long-term lifetime 50% more wavelength spectrum and 33% more channels
- Superior PMD & Dispersion
- Excellent compatibility with any commercial single mode fibers

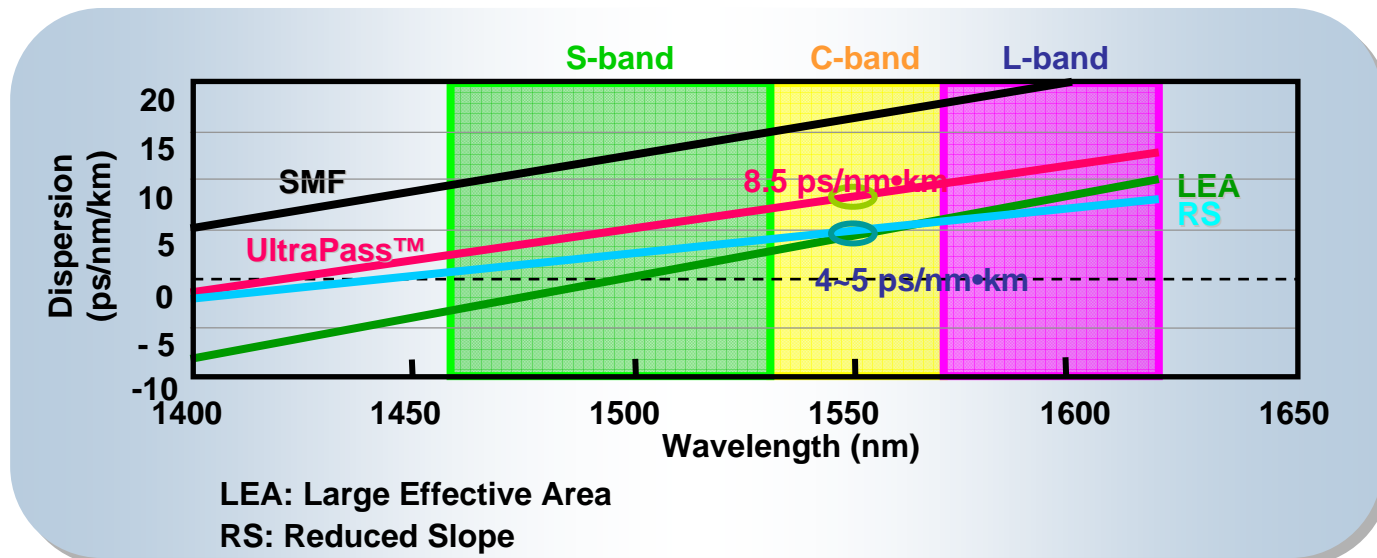


Highlighted Products

SAMSUNG

UltraPass™ Fiber

- Today's and Future Long Haul N/W Application
- Advanced NZDSF (G. 656)
- Expanded Bandwidth Operation (S + C + L)
- Large Effective Area for Low Non-linear effects
- 2.5 G, 10 G, 40 G Capability
- Low PMD for High Data Rate Transmission : < 0.04 ps/rtkm

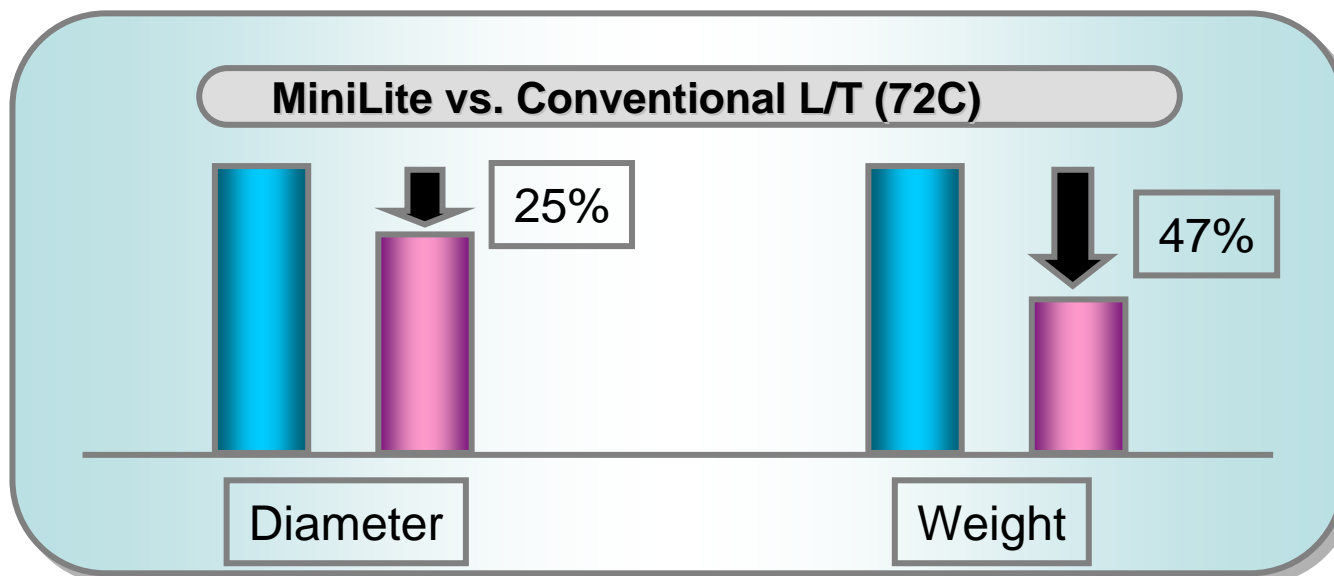


Highlighted Products

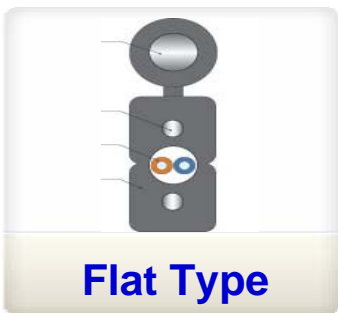
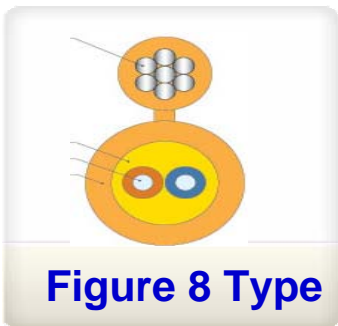
SAMSUNG

MiniLite™ Cable

- Loose tube cable with reduced diameter & weight
- Reduced diameter enables conduit & duct space savings
- Light weight & small diameter allows for easy handling
- Significant improvement in installation time means economic use of CAPEX



Drop Cable



Feature / Benefit

- Up to 4 tight-buffered (up to 900 μm) fibers in a small package
- Available both in single mode fiber type and multi-mode fiber type
- Highly flexible and lightweight for easy handling
- Interconnect cable for riser and general purpose indoor applications
- Flame retardant outer jacket
- Compliant with IEC 60332-1

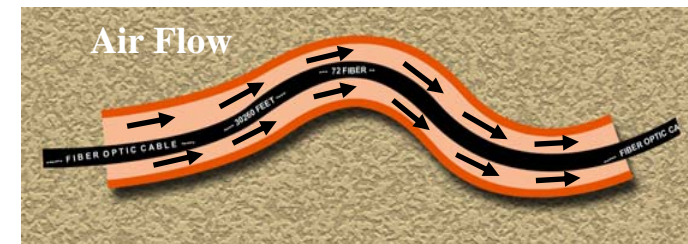
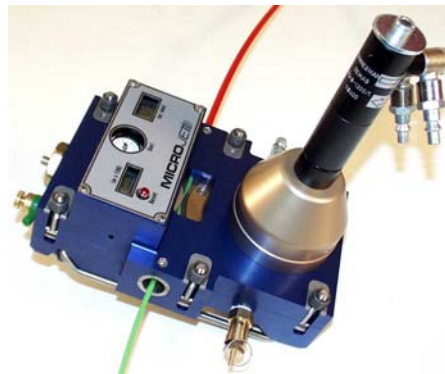


Highlighted Products

SAMSUNG

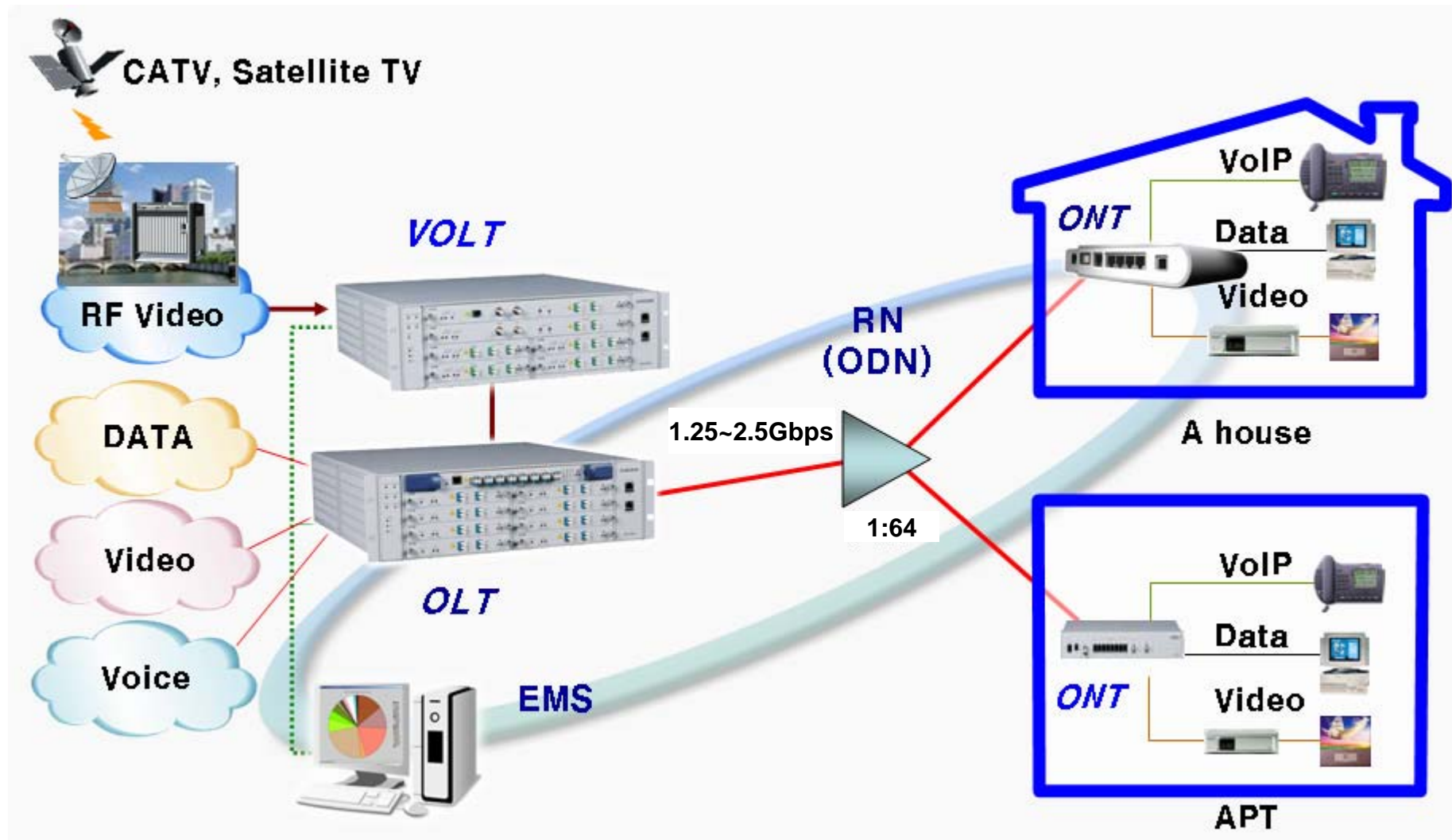
FastBlow™ Cable

- Micro cable for air blown installation or override application
- Max. Φ 6.7 mm for 72 F micro cable
- Value Proposition
 - Lower initial capital investment
 - Future proof network
 - Quick & smooth installation



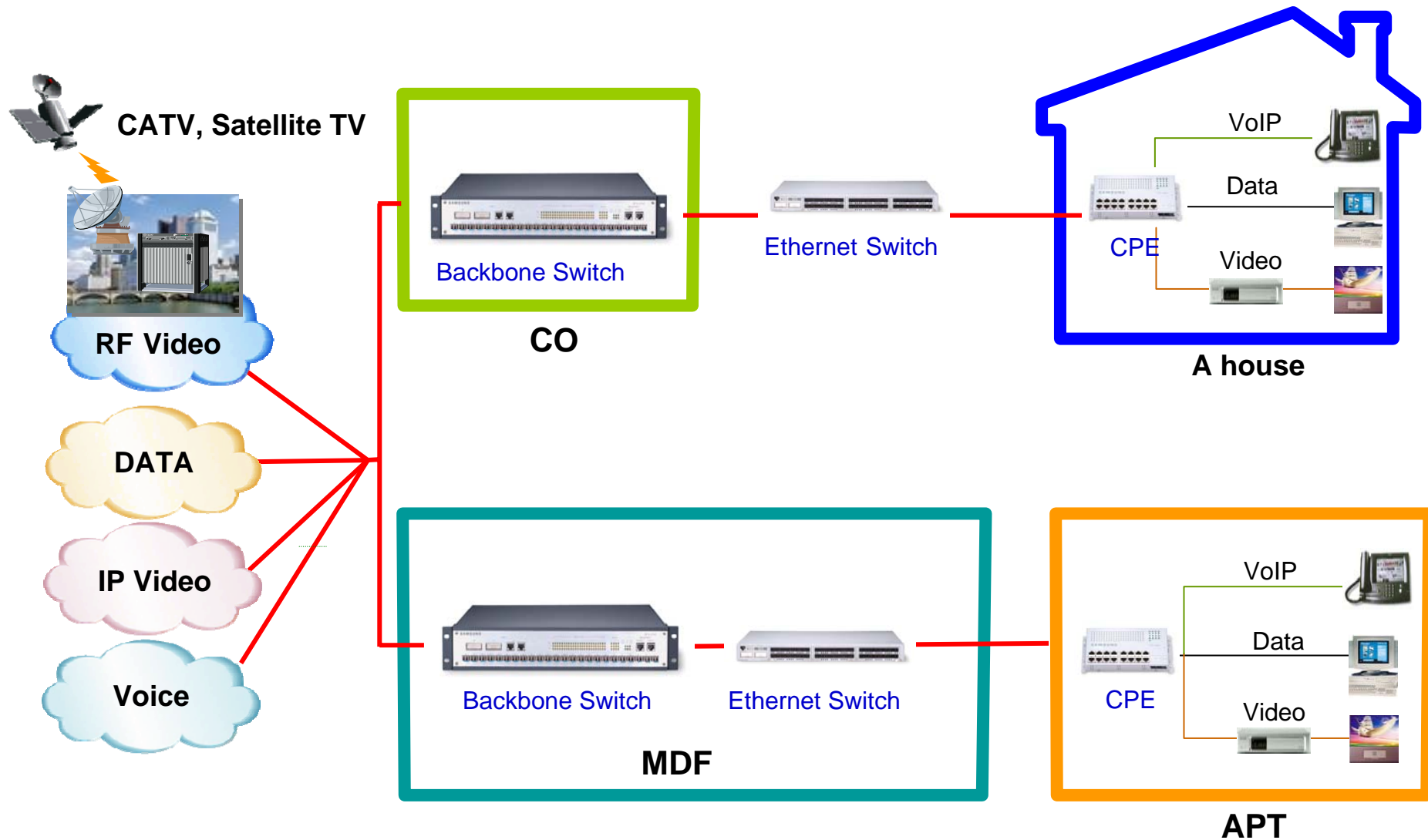
G-PON, E-PON System Network

SAMSUNG



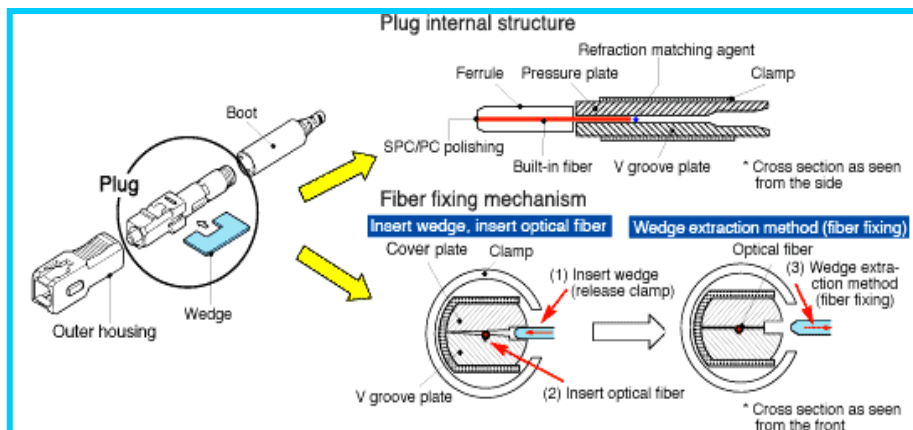
AON System Network

SAMSUNG



Field Assembly Connector

SAMSUNG



- Field Installation in termination box or inside of house.
- Simple, Fast & Easy Installation
- Within 1 min assemble time
- Insertion Loss [SMF]
 - Insertion Loss ≤ 0.4 dB
 - Reflection Loss ≥ 40 dB

	Fusion Splice	FA Connector
Working Time	1	0.6
Working Cost	1	0.7
Strong Points	Proofed Reliability Confirm connection loss on spot	No need Equipment Easy, simple Work
Weak Points	Need high cost Equipment Need power (Battery) Difficult Working condition	No enough Reference Not confirm connection loss on spot

인도	중국	일본	한국
			
몽골	필리핀	태국	호주
			
사우디	쿠웨이트	이란	이집트
			

말레이시아	베트남	카타르	네팔
			
인도네시아	브루나이	캄보디아	알제리
			
리비아	싱가포르	스리랑카	미얀마
			

독일	영국	프랑스	미국
			
체코	노르웨이	슬로베니아	폴란드
			
핀란드	스웨덴	덴마크	러시아
			

벨기에	이탈리아	카자흐스탄	우크라이나
			
슬로바키아	루마니아	그리스	불가리아
			
우즈베키스탄	캐나다	멕시코	브라질
			

탄자니아	모잠비크	나이지리아	잠비아
			
앙골라	남아프리카공화국	수단	말리
			
아르헨티나	페루	칠레	볼리비아
			

- 우리나라 : 감사합니다.
- 영어 : **Thanks.**
- 독어 : **Danke.** (당케)
- 불어 : **Merci** (메르시)
- 스페인어 : **Gracias** (그라시아스)
- 중국어 : 謝謝 (세세)
- 네덜란드어 : **Dank u**
- 일본어 : ありがとうございます
- 포르투갈어 : **Obrigado**
- 태국 : 콥쿤카 (여자), 콥쿤캅(남자)
- 이탈리아어 : **Grazie** (그라치에)
- 그리스 : 에프하리스토
- 아랍어 : **shukran Jaziilan** (슈크란 좌질란)
- 러시아어 : Спoсибo (스빨시바)



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250, 2-ka, Taepyeongno, Jung-gu, Seoul, Korea 100-742
Tel: 82 2 727 7001 Fax: 82 2 727 7022
<http://www.samsung.com>



CEO Message From Jong-Yong Yun



In the vortex of ever-fierce competition, Samsung Electronic Co., Ltd. (Collectively "SEC") has made a remarkable success in the global market.

In our bumpy road to success, we have learned a lesson that "Changing one step ahead over competitors" is a basic principle to guarantee our survive and growth for the future.

Fast mover in ever-fierce competition

"Changing at light speed" is only one word for describing the telecommunication market. The world is rapidly transforming to the ubiquitous society in which everyone is connected each other at anytime everywhere. It calls for astronomical investment in broadband network based on optical fiber and cable.

For this reason, SEC created Fiber Optical Division in 1983 and eventually spun off it in 2004 by the name of Samsung Electronics Hainan Fiber (Collectively "SEHF"). SEC fully owns SEHF's stakes and works together to maximize synergy effects between the two companies.

Spinning off SEHF was our strategic decision making to sharpen its competitiveness and resulted in good performance and reasonable profit in 2005. What is better! Well-downsized and streamlined SEHF is able to react much faster to market changes and customers' needs.

Professional due care on your business with our heart

We put customers and quality before any other business value. We pursue mutual benefit with our customers. For this to happen, we do our business with heart-warm passion. SEC and SEHF will work together to meet your demands and mutual benefit with all-out professional efforts.

SAMSUNG ELECTRONICS CO., LTD.

JONG YONG YUN, Vice Chairman & CEO