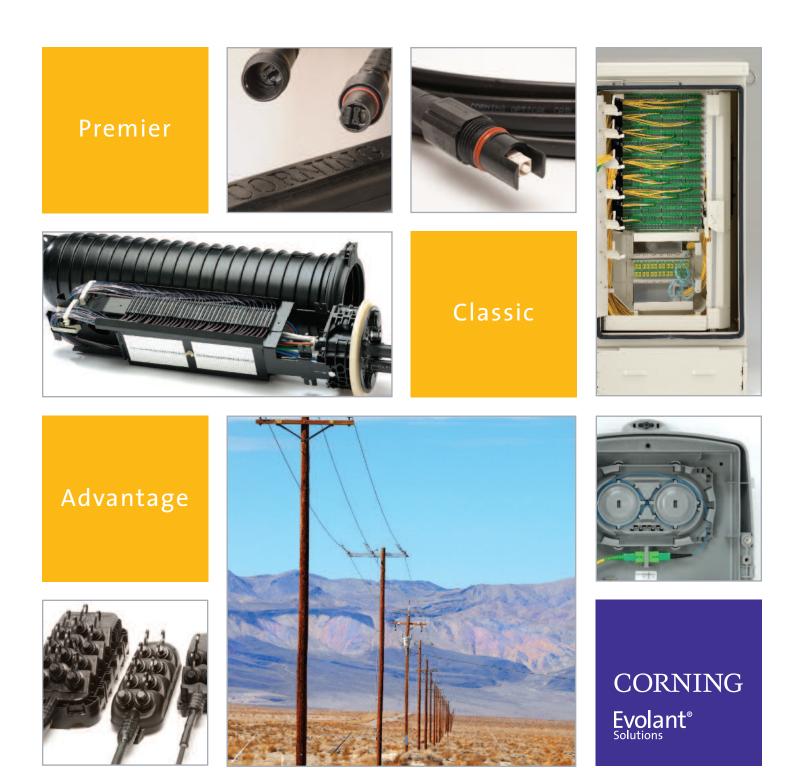
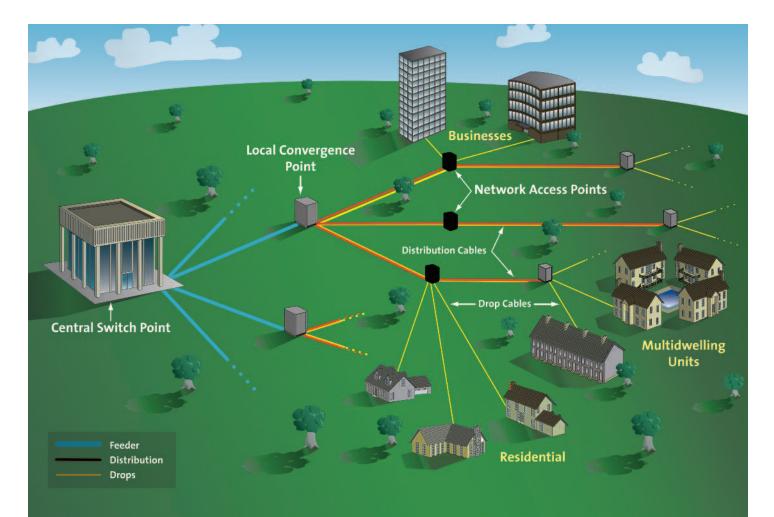
Evolant[®] Solutions Outside Plant Fiber Optic Hardware and Equipment Solutions



FTTx Networks



Corning Cable Systems Evolant[®] Solutions for Access Networks offer specialized portfolios of innovative products and services that enable network service providers to cost-effectively deploy fiber in the last mile. Our proven passive optical network (PON) solutions allow our customers to offer the latest and most advanced voice, data and video services available. Evolant Solutions for Access Networks encompass state-of-the-art products, network planning, system design and deployment support.

Premier

Corning Cable Systems Evolant Premier Solution consists of **state-ofthe-art** product solution sets with the most highly developed features available. The Evolant Premier Solution utilizes **advanced technology** and **superior performance** to provide a variety of value-added functions.

Advantage

Corning Cable Systems Evolant Advantage Solution consists of **high-value** products with optimal features. The Evolant Advantage Solution was designed to increase the **ease of installation** and **speed of adding subscribers** from the local convergence point to the customer premises.

Classic

Corning Cable Systems Evolant Classic Solution offers proven, **cost-effective** products to suit your needs. The Evolant Classic Solution offers tip-to-tip products and services to make your optical access network a reality.



FTTx Networks

The local convergence point (LCP)

is typically the aggregation point for splitting in PONs. Passive optical splitters are most commonly housed inside pole- or pad-mountable cabinets and are incrementally added over time as the subscriber base grows.

OptiTect[®] Local Convergence Cabinet, Gen III Series

This family provides everything necessary to manage up to 432 fibers for an outside plant FTTx application. The OptiTect Local Convergence Cabinet, Gen III Series offers an industry-leading size, user-friendly design and intuitive fiber management. These features allow the customer to minimize field training, installation time and overall labor costs, while increasing speed-ofdeployment and revenue generation.

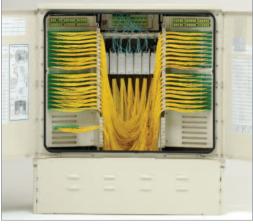
OptiTect Gen III Splitter Module

The first module with bend-improved fiber input and output legs, it is interchangeable throughout all OptiTect Gen III Cabinets and the Eclipse Hardware family. Its slim module is half the thickness of full size modules, allowing maximum hardware density. The splitter's field-proven performance is due in part to its robust housing which protects the module during installation as well throughout the product's life. The integrated parking clips installed on each connector allow for easy and efficient fiber management.

intuitive fiber management

OptiTect Local Convergence Cabinet, LS Series

This is the next generation cabinet family that allows for fiber management up to 864 fibers for outside plant FTTx applications. The OptiTect Local Convergence Cabinet, LS Series is an innovative solution that is the optimal balance between size, density and access. All cabinets share the same intuitive and efficient cable routing and splitter storage. Each cabinet provides superior ergonomics with full front access, which results in minimal installation time, quick connections and, ultimately, increased profits.



OptiTect Local Convergence Cabinet, LS Series, 864 Fiber | Photo HWPSS1791



OptiTect Local Convergence Cabinet, Gen III Series, 432 Fiber | Photo CCO110





OptiTect Local Convergence Cabinet, LS Series, 432 Fiber | Photo HWPSS1794



OptiTect Cabinet Coupler Modules | Photo CCO108



FTTx Networks

The network access point

(NAP) is a terminal that serves as the connection

point for multiple optical drop cables to the subscriber premises. NAP terminals can be installed in any application, from aerial, pole-mount, to pedestals, to handholes. These products

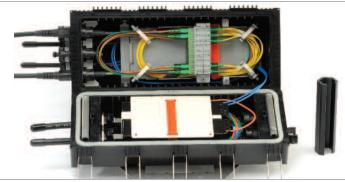
typically serve between four and 16 residences. **FlexNAP[™] Terminal Distribution System** Corning Cable Systems FlexNAP[™] Terminal **Distribution System provides** a cost-effective method of deploying optical fiber in outside plant distribution networks at speeds several times faster than traditional field installations. Utilizing standard optical fiber cables, network access points are pre-installed at customerspecified locations along the length of the cable. The cable and network access points are tested and shipped as a complete distribution cable/terminal system.

Compatible with both aerial (overlash, dedicated messenger and self-support) and below-ground (direct buried and 1.25 in duct) outside plant distribution applications, Corning Cable Systems FlexNAP System significantly reduces installation time by as much as 50 percent per network access point. The increased speed of network deployment, along with the reliability of factory testing, offer significant value to the end-user in the following key areas: deployment velocity, risk avoidance, workforce efficiency and capital deferment.

OptiSheath° Terminals

OptiSheath Terminals have drastically reduced the installation time and total deployment cost associated with FTTx networks today. All of these terminals incorporate craft-friendly designs in addition to labor-saving **preconnectorized** solutions. These features combine to yield rapid subscriber connection, allowing service providers to save valuable labor time and to realize additional income from the increased service deployment velocity. The deployment of OptiSheath Terminals has demonstrated labor time savings of as much as 50 percent and total cost (material plus labor cost) reductions of up to 20 percent.

OptiSheath Terminals offer customers the lowest material cost FTTx product solution at the NAP. The Corning Cable Systems OptiSheath Terminal product family is designed to accommodate any deployment scenario, from aerial to pedestal to belowgrade applications. These products are field-proven in the earliest of FTTx deployments and their robust designs ensure solid network reliability and durability for many years to come.









Armored FlexNAP Terminal Distribution System with OptiSheath MultiPort Terminal | Photo LAN722

OptiSheath Aerial Terminal, SCA-9T24-LRS | Photo SHD168





FTTx Networks

From the perspective of passive products, the Customer Premises Equipment

(CPE) is comprised of optical drop cable and the network interface device (NID) housing, which protects the active electronics at the subscriber premises.

OptiFit[®] Drop Cable Assemblies

These assemblies feature environmentally hardened, sealed and strain-relieved connectors (SC APC available in both dielectric and toneable locatable cable designs) that are factory-terminated on one or both ends of optical drop cables. These assemblies, which are available in a variety of lengths, save service providers and installers considerable time and money when deploying FTTx networks and eliminate the need for any fusion splicing for drop cable installation and subscriber connection. **OptiFit Drop Cable Assemblies** are compatible with all OptiSheath[®] Terminals and interface devices.



OptiTip™ Connector | Photo COP230





OptiFit MT Drop Cable Assembly | Photo CCA202

OptiWay® Network Interface Device, NG Series

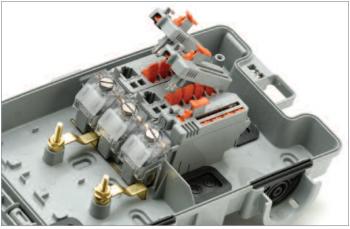
The next generation in all-plastic enclosures is specifically designed to house electronic circuits for the growing FTTx and broadband access markets. This state-of-the-art Network Interface Device (NID) is designed to either replace or supplement existing fiber or standard copper NIDs. Suitable for outdoor environments, the OptiWay NID, NG Series utilizes a smaller enclosure in keeping with the shrinking size of today's electronics. This NID integrates the OptiFit Drop Cable Assembly adapter in a more seamless manner than earlier models, greatly reducing installation time and complexity.



Universal Network Interface Device | Photo NID019

UNI[™] Universal Network Interface Device, 3003 Series

This network interface device stays true to its name with an internal layout that is specifically designed for flexibility and universality. It is capable of accepting a wide variety of industry standard line modules and protectors. The snap-in ground feature minimizes installation time and wiring errors, resulting in significant operational savings.



Universal Network Interface Device | Photo NID017



FTTx Networks

Premier
SolutionSample
Bill Of Materials
(BOM)

Scenario: Centralized Split Architecture, Preterminated Products: 192 Customers, 1x32 Total Split Ratio, Aerial Solution, 8 Customers/NAP

Part Number	Quantity	Description		
Central Office (CO) or Headend (HE)				
UDF-BAY-19E-07-075	1	Eclipse® Hardware 7 ft equipment rack, 19 in width		
UDF-IBS-07-075	2	Eclipse Hardware 7 ft vertical inter-bay storage unit, front management only		
UDF-ECO-07-075	2	Eclipse Hardware 7 ft end cap		
ECL243112D9-CF001	B 1	Eclipse Hardware Pre-Stubbed patch panel, 4 RU, 24 SC APC ports, FREEDM® Ribbon		
		Indoor/Outdoor cable, 100 ft		
ECL-J1U	1	Eclipse Hardware 1RU horizontal jumper management panel		
OSE-LD4-W0-11	1	Low-Density Optical Splice Enclosure, 864-fiber mass-fusion splice capacity		
OSE-ST-3	1	Mass-fusion splice tray for OSE-LD		
2806031-012	1	Mass-fusion splice heat-shrink splice protector part (25 per pack, 40 mm length)		
656501R3131025F	6	Equipment jumper, 25 ft, single-fiber, single-mode, SC APC to SC APC for interconnection of		
		OLT to splitter module		
Feeder Cable				
216EC4-14100D20	1	Feeder cable, SST-Ribbon™ Gel-Free All-dielectric Cable, 216 single-mode fibers, 0.35/0.25 dB/km		
Local Convergend	ce Point	t (LCP)		
VCAP520-C4131C400	1	OptiTect® LS Cabinet, 24 feeder ports, 288 distribution ports, SC APC, SST-Ribbon cable stubs,		
		100 ft Option 1		
WMB4CC6CA6C1113	2 5	1x32 splitter module for OptiTect LS cabinet, SC APC connectors Option 1		
SCAP231C41E31C4S0	0 1	OptiTect Local Convergence Cabinet, Gen III Series, 24 feeder ports, 288 distribution ports,		
		SC APC, SST-Ribbon cable stubs, 100 ft Option 2		
UMB1CC6CZ6C1132	5	1x32 splitter module for OptiTect Local Convergence Cabinet, Gen III Series,		
		SC APC connectors Option 2		
SCF-6C28-01-F	1	SCF splice enclosure to mass-fusion splice LCP cable stubs to FlexNAP [™] cables		
SCF-ST-077	3	Splice tray for SCF, mass-fusion splice		
Distribution Cable	;			
FNAP-CBL-072EV4	3	Distribution cable, FlexNAP [™] RPX Ribbon Gel-Free All-Dielectric Cable, 72-fiber		
Network Access F	Point (N	AP)		
FSV4A08M2RL005F	24	Single tether attachment for FlexNAP, 8 fibers, MT connector receptacle		
MTB-0844FD010FWP	24	OptiSheath® MultiPort Terminal with 8-fiber MT connector plug, 8 customer ports		
Drop Cable				
434301EB1FD150F	192	OptiFit® Drop Cable Assembly, 1-fiber, 150 ft		

FTTx Networks

Advantage Solution

Sample Bill Of Materials (BOM)







Scenario: Centralized Split Architecture, Preterminated Products: 192 Customers, 1x32 Total Split Ratio, Aerial Solution, 8 Customers/NAP

Part Number C	Quantity	Description
Central Office (CO)	or Hea	adend (HE)
UDF-BAY-19E-07-075	1	Eclipse® Hardware 7 ft equipment rack, 19 in width
UDF-IBS-07-075	2	Eclipse Hardware 7 ft vertical inter-bay storage unit, front management only
UDF-ECO-07-075	2	Eclipse Hardware 7 ft end cap
ECL243112D9-WF001B	1	Eclipse Hardware Prestubbed patch panel, 4 RU, 24 SC APC ports, FREEDM® Indoor/Outdoor cable, 100 ft
ECL-J1U	1	Eclipse Hardware 1RU horizontal jumper management panel
OSE-LD4-W0-11	1	Low-Density Optical Splice Enclosure, 432-fiber mass-fusion splice capacity
OSE-ST-1	1	Heat-shrink fusion splice tray for OSE-LD
2806031-01	1	Single-fiber heat-shrink splice protector part (25 per pack, 60 mm length)
656501R3131025F	6	Equipment jumper, 25 ft, single-fiber, single-mode, SC APC to SC APC for interconnection of OLT to splitter module
Feeder Cable		
216EW4-T4100D20	1	ALTOS® Gel-Free All-Dielectric Cable, 216 single-mode fibers, 0.35/0.25 dB/km
Local Convergence	Point	(LCP)
VCAP520-W4131W400	1	OptiTect [®] LS Cabinet, 24 feeder ports, 288 distribution ports, SC APC, ALTOS Cable stubs, 100 ft Option 1
WMB4CC6CA6C11132	5	1x32 splitter module for OptiTect LS cabinet, SC APC connectors Option 1
SCAP231W41E31W4S00		OptiTect Local Convergence Cabinet, Gen III Series, 24 feeder ports, 288 distribution ports, SC APC, ALTOS Cable stubs, 100 ft Option 2
UMB1CC6CZ6C1132	5	1x32 splitter module for OptiTect Local Convergence Cabinet, Gen III Series, SC APC connectors Option 2
SCF-8C28-01	1	SCF splice enclosure to splice LCP cable stubs to ALTOS Cables
SCF-ST-112	9	Splice tray for SCF, single-fiber splice
2806031-01	8	Single-fiber heat-shrink splice protector part (25 per pack, 60 mm length)
Distribution Cable		
216EW4-T4100D20	-	ALTOS Gel-Free All-Dielectric Cable, 216 single-mode fibers, 0.35/0.25 dB/km
Network Access Po	int (NA	AP)
SCA-9T24-086CP	24	OptiSheath® Fiber Terminal, aerial connector, Option 1
SCA-6T24-086CP	24	OptiSheath Fiber Terminal, aerial connector, Option 2
MOB-0844FDxxxFW	24	OptiSheath MultiPort Terminal, Option 3
SCA-6T24-006CP-05B	4	OptiSheath Aerial Terminal, 6 mechanical adapters for 6 MultiPort Terminals adds, Option 3
SCF-ST-126	8	Fusion splice tray for SCA terminal, 24 single-fiber splices per tray, Option 3
2806031-01	8	Single-fiber heat shrink splice protector part (25 per pack, 60 mm length)
Drop Cable		
434301EB1FD150F	192	OptiFit® Drop Cable Assembly, 1-fiber, 150 ft



FTTx Networks

Classic Solution

Sample Bill Of Materials (BOM)



Scenario: Centralized Split Architecture, Preterminated Products: 192 Customers, 1x32 Total Split Ratio, Aerial Solution, 8 Customers/NAP

Part Number	Quantity	Description		
Central Office (CO) or Headend (HE)				
UDF-BAY-19E-07-075	1	Eclipse® Hardware 7 ft equipment rack, 19 in width		
UDF-IBS-07-075	2	Eclipse Hardware 7 ft vertical inter-bay storage unit, front management only		
UDF-ECO-07-075	2	Eclipse Hardware 7 ft end cap		
ECL243112D9-WF001H	3 1	Eclipse Hardware Prestubbed patch panel, 4 RU, 24 SC APC ports, FREEDM® Indoor/Outdoor cable, 100 ft		
ECL-J1U	1	Eclipse Hardware 1RU horizontal jumper management panel		
OSE-LD4-W0-11	1	Low-Density Optical Splice Enclosure, 432 fiber mass-fusion splice capacity		
OSE-ST-1	1	Heat-shrink fusion splice tray for OSE-LD		
2806031-01	1	Single-fiber heat-shrink splice protector part (25 per pack, 60 mm length)		
656501R3131025F	6	Equipment jumper, 25 ft, single-fiber, single-mode, SC APC to SC APC for interconnection of OLT to splitter module		
Feeder Cable				
216EW4-T4100D20	1	ALTOS® Gel-Free All-Dielectric Cable, 216 single-mode fibers, 0.35/0.25 dB/km		
Local Convergence	e Point	(LCP)		
VCAP520-W4131W400		OptiTect [®] LS Cabinet, 24 feeder ports, 288 distribution ports, SC APC, ALTOS cable stubs, 100 ft Option 1		
WMB4CC6CA6C11132	5	1x32 splitter module for OptiTect LS cabinet, SC APC connectors Option 1		
SCAP231W41E31W4S0	0 1	OptiTect Local Convergence Cabinet, Gen III Series, 24 feeder ports, 288 distribution ports,		
		SC APC, ALTOS Cable stubs, 100 ft Option 2		
UMB1CC6CZ6C1132	5	1x32 splitter module for OptiTect Local Convergence Cabinet, Gen III Series,		
		SC APC connectors Option 2		
SCF-8C28-01	1	SCF splice enclosure to splice LCP cable stubs to ALTOS Cables		
SCF-ST-112	9	Splice tray for SCF, single-fiber splice		
2806031-01	8	Single-fiber heat-shrink splice protector part (25 per pack, 60 mm length)		
Distribution Cable				
216EW4-T4100D20	-	ALTOS Gel-Free All-Dielectric Cable, 216 single-mode fibers, 0.35/0.25 dB/km		
Network Access Po	oint (NA	AP)		
SCA-9T24-LRS	24	OptiSheath® Fiber Terminal		
SCF-ST-126	24	Single-fiber heat-shrink splice tray for SCA-9T24-LRS		
2806031-01	8	Single-fiber heat-shrink splice protector part (25 per pack, 60 mm length)		
Drop Cable				
OSNP-SCA-250-Z	8	OptiSnap™ field-installable connector, SC APC, 250 μm fiber, 25 per box		
001EB4-14100A20	32k-ft	SST-Drop™ Cable, 1-Fiber		



Evolant[®]

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