

FTTX-K20: Hybrid FTTx + Networking Kit

The FTTX-K20 kit from LightSpeed Technologies® is an affordable, easy-to-install package that streamlines fiber-to-the-home and business. The kit includes two enclosures designed to simultaneously route and manage broadband, network, and/or audio-visual fiber connections from an outdoor location to an indoor demarcation point.

Unlike other demarcation wiring systems that are specific to broadband, networking or audio/video, the FTTX-K20 includes innovative hybrid panels that manage single mode SC/APC connections (typically broadband), single mode LC connections (typically long-range networking and AV), and multimode LC connections (typically short-range networking and AV) in a single enclosure. For added versatility, the FTTX-K20 hybrid panel system is also swappable and conforms to LGX standards, allowing integrators to quickly and easily customize fiber optic connections using off-the-shelf components.

Installing the FTTX-K20 system is easy: simply mount the outdoor enclosure, mount the indoor enclosure, run and connect a compatible fiber optic cable between the two enclosures, and plug-in the broadband, networking, and/or audio-visual equipment. If needed, LightSpeed Technologies® offers a variety of factory-terminated fiber optic cables built in various lengths and configurations. A fully populated FTTX-K20 enclosure requires ten strands of fiber in the following cable configuration:



Product Snapshot

- FTTx demarcation wiring package including two enclosures with hybrid LGX panels
- Ideal for routing broadband, networking and/or audio-visual fiber-based signals between indoor and outdoor locations
- Included enclosures feature two simplex single mode SC/APC, two duplex single mode LC and two duplex multimode LC connections
- Hybrid LGX panels are swappable and follow industry standards, allowing for quick customizations in the field
- Enclosures are outdoor-rated for exposure to water and UV
- Enclosures feature cable management and multiple entry / exit points supporting conduit connections up to 1 inch in diameter

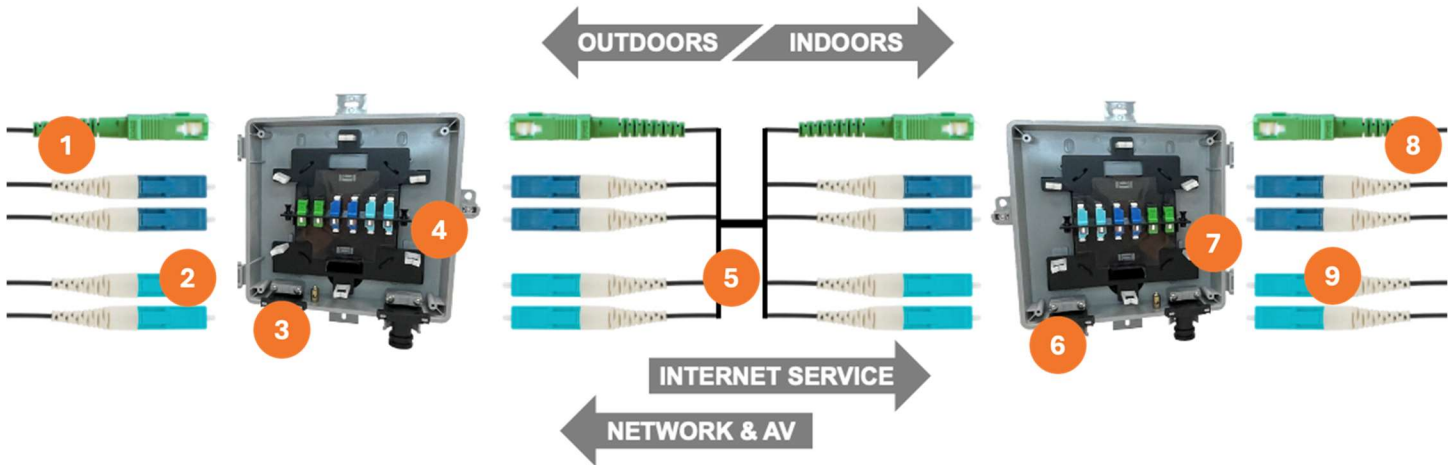
Connection	Cable Type	Indoor Enclosure Connector	Outdoor Enclosure Connector	Typical Use
Cable 1	Single Mode	SC/APC	SC/APC	Broadband
Cable 2	Single Mode	SC/APC	SC/APC	Broadband
Cable 3	Single Mode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV
Cable 4	Single Mode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV
Cable 5	Single Mode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV
Cable 6	Single Mode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV
Cable 7	Multimode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV
Cable 8	Multimode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV
Cable 9	Multimode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV
Cable 10	Multimode	LC/UPC (standard LC)	LC/UPC (standard LC)	Networking & AV

* LightSpeed Technologies® recommends adding at least 10 feet of extra cable length to all interconnect cables.

To future-proof installations, both the outdoor and indoor FTTX-K20 enclosures feature built-in cable management, cable coiling, and multiple entry and exit points to accommodate extra fiber optic cable for service loops, repairs and retrofits.

The FTTX-K20 kit is ideal for residential and commercial installations where affordable, quick, consistent, reliable, and aesthetically pleasing fiber optic connections are required.

Typical Application Diagram



- 1 **Service Provider Cable Feed** (contractor provided)
Incoming service feed.
- 2 **Remote Network and/or AV Feed** (contractor provided)
Outgoing network and/or audio-visual feeds.
- 3 **Outdoor Enclosure**
Weather-rated enclosure connects and protects the incoming service feed and outgoing network and AV feeds while providing cable management and multiple secure cable entry and exit points.
- 4 **Hybrid LGX Panel**
Hybrid LGX panel with connectivity for two simplex single mode SC/APC, two duplex single mode LC and two duplex multimode LC connections.
- 5 **Trunk Cable** (contractor provided)
Fiber optic trunk cable connecting the outdoor enclosure to the indoor enclosure.
- 6 **Indoor Enclosure**
Indoor enclosure connects and protects the incoming service feed and outgoing network and AV feeds while providing cable management and multiple secure cable entry and exit points.
- 7 **Hybrid LGX Panel**
Hybrid LGX panel with connectivity for two simplex single mode SC/APC, two duplex single mode LC and two duplex multimode LC connections.
- 8 **ONT Cable Feed** (contractor provided)
Connection to the optical network terminal (modem).
- 9 **Network/or and AV Cable Feed** (contractor provided)
Connection to the network switch, media converters, HDMI over fiber optic extenders and/or other signal distribution electronics.



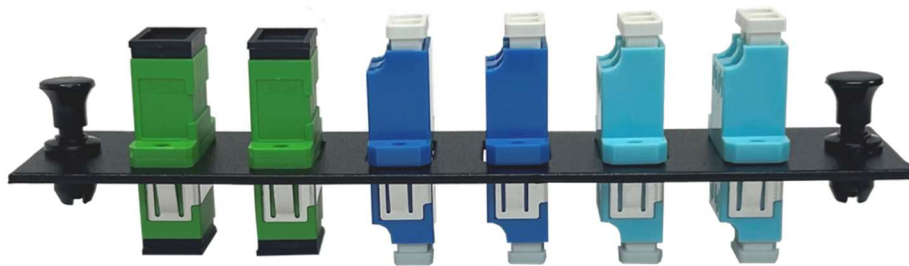
Specifications

Kit Information	
Part Number	FTTX-K20
Contents	<ul style="list-style-type: none"> 1 x factory-loaded outdoor enclosure <ul style="list-style-type: none"> • 1 x hybrid LGX panel <ul style="list-style-type: none"> ○ 2 x simplex single mode SC/APC ○ 2 x duplex single mode LC ○ 2 x duplex multimode LC • 1 x copper ground lug 1 x factory-loaded indoor enclosure <ul style="list-style-type: none"> • 1 x hybrid LGX panel <ul style="list-style-type: none"> ○ 2 x simplex single mode SC/APC ○ 2 x duplex single mode LC ○ 2 x duplex multimode LC • 1 x copper ground lug

Outdoor Enclosure with Hybrid LGX Panel	
Dimensions	10.2 x 8.7 x 2.8in (261 x 222 x 73mm)
Material	PC and ABS outdoor-rated plastic
Color	Light gray
Input / Output Conduit Support	2 x up to 1in conduit
Input / Output Cable Support	2 x gasketed round entries accommodating from 0.12 to 0.63in (3.0 to 16.2mm) 2 x gasketed flat drop entries accommodating from 0.7 to 0.3 x 0.2in (2.0 to 8.1 x 4.5mm) 2 x variable size entry clamp
Grounding	Electrical copper ground lug
Temperature	-40°F to 176°F (-40°C to 80°C)
Relative Humidity	≤ 85%
Environmental Rating	GR-771 outdoor-rated for weather and UV exposure
Security	3/8" hex bolt with support for security seal
Panel Insert Format	LGX standard
Panel Insert Connections	2 x simplex single mode SC/APC 2 x duplex single mode LC/UPC 2 x duplex multimode LC/UPC
Panel Insert Total Fiber Capacity	10 strands (6 x single mode and 4 x multimode)
Panel Material	16-gauge steel with black powder coating
Panel Insertion Loss	0.03 – 0.01dB
Panel Durability	> 500 mating cycles

Specifications

Indoor Enclosure with Hybrid LGX Panel	
Dimensions	10.2 x 8.7 x 2.8in (261 x 222 x 73mm)
Material	PC and ABS outdoor-rated plastic
Color	Light gray
Input / Output Conduit Support	2 x up to 1in conduit
Input / Output Cable Support	2 x gasketed round entries accommodating from 0.12 to 0.63in (3.0 to 16.2mm) 2 x gasketed flat drop entries accommodating from 0.7 to 0.3 x 0.2in (2.0 to 8.1 x 4.5mm) 2 x variable size entry clamp
Grounding	Electrical copper ground lug
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Hybrid Panel Insert