



Volition™

50 μ m Multimode Fiber Optic Cable

TOUGH ENOUGH TO TAKE IT. EASY TO HANDLE.

The Volition™ Cabling System from 3M includes horizontal and backbone cable with 50/125 μ m multimode InfiniCor™ 600 with Duraclad™ fiber supplied to 3M by Corning Incorporated.



InfiniCor 600 Fiber with Duraclad

The horizontal cable connects telecommunications closets to work area outlets. The cable is terminated with Volition™ VF-45™ Sockets in the closets' Volition™ Patch Panel and at the work area outlet. Horizontal cable is available with two or four fibers constructed with two 250 μ m coated fibers housed in a 900 μ m buffer tube. Cable jackets are OFNR (riser rated), OFNP (plenum rated), or LSZH (low-smoke zero-halogen rated).

The backbone cable connects telecommunications closets together or to the main equipment room, and is terminated into a Volition patch panel. Backbone cable is offered in counts of 6-, 12-, 24- and 48- fibers, with two 250 μ m coated fibers in each 900 μ m buffer tube. Cable jackets are OFNR (riser rated), OFNP (plenum rated), or LSZH (low-smoke zero-halogen rated).

The cable's construction incorporates strength members that resist crushing during cable pulling and 90 degree bends. All fiber optic cables meet the performance requirements in TIA/EIA and ISO/IEC 11801 specifications.





FEATURES

BENEFITS

Smaller diameter size	Minimizes weight and cable installation Minimizes number and size of conduit required Provides maximum cables per conduit
Produced to industry specs	Ensures system compatibility and interoperability
Two fibers per buffer tube	Easy installation and organization
Color-coded fibers	Fast and easy fiber identification
Soft buffer tubes	Quick fiber strip
500/500 MHz-Km bandwidth	Extended distance at higher speeds
Infinicor - 600 with Duraclad	Tighter bend radius

Horizontal Fiber Cable

(2-, 4-fiber count)

- Fiber-to-the-desk cable for very high data speed application
- Rugged construction
- 2-fiber breakout structure with individually protected tubes
- Color-coded fibers to identify transmitting and receiving fiber
- Small size and weight simplify pulling and installation
- OFNP, OFNR and LSZH rated versions available
- 50/125/250 micron fibers
- Corning Infinicor 600 with Duraclad fiber

Ordering Information • Horizontal Cable

Model #	Description	Packaging	Min. Order
VOL-H52P1	Horizontal 50/125 μ m, 2-fiber Plenum	1 km/reel	1 km (3280 ft.)
VOL-H52R1	Horizontal 50/125 μ m, 2-fiber Riser	1 km/reel	1 km (3280 ft.)
VOL-H52L1	Horizontal 50/125 μ m, 2-fiber LSZH	1 km/reel	1 km (3280 ft.)
VOL-H54P1	Horizontal 50/125 μ m, 4-fiber Plenum	1 km/reel	1 km (3280 ft.)
VOL-H54R1	Horizontal 50/125 μ m, 4-fiber Riser	1 km/reel	1 km (3280 ft.)
VOL-H54L1	Horizontal 50/125 μ m, 4-fiber LSZH	1 km/reel	1 km (3280 ft.)

Backbone Fiber Cable

(6-, 12-, 24-, 48-fiber count)

- Very high speed multimedia backbone cable (Gigabit ready)
- Rugged construction
- Low friction jacket allows installation by laying (trays, trenches...), pulling (trenches, conduits...)
- Individually color-coded fibers for ease of identification
- 50/125/250 micron fibers
- Corning Infinicor 600 with Duraclad fiber

Ordering Information • Backbone Cable

Model #	Description	Min. Order m (ft.)
VOL-B56R1	Backbone 50/125 μ m, 6-fiber Riser	76 (250)
VOL-B512R1	Backbone 50/125 μ m, 12-fiber Riser	76 (250)
VOL-B524R1	Backbone 50/125 μ m, 24-fiber Riser	76 (250)
VOL-B548R1	Backbone 50/125 μ m, 48-fiber Riser	76 (250)
VOL-B56L1	Backbone 50/125 μ m, 6-fiber LSZH	500 (1640)
VOL-B512L1	Backbone 50/125 μ m, 12-fiber LSZH	500 (1640)
VOL-B524L1	Backbone 50/125 μ m, 24-fiber LSZH	500 (1640)
VOL-B548L1	Backbone 50/125 μ m, 48-fiber LSZH	500 (1640)
VOL-B56P1	Backbone 50/125 μ m, 6-fiber Plenum	76 (250)
VOL-B512P1	Backbone 50/125 μ m, 12-fiber Plenum	76 (250)
VOL-B524P1	Backbone 50/125 μ m, 24-fiber Plenum	76 (250)
VOL-B548P1	Backbone 50/125 μ m, 48-fiber Plenum	76 (250)

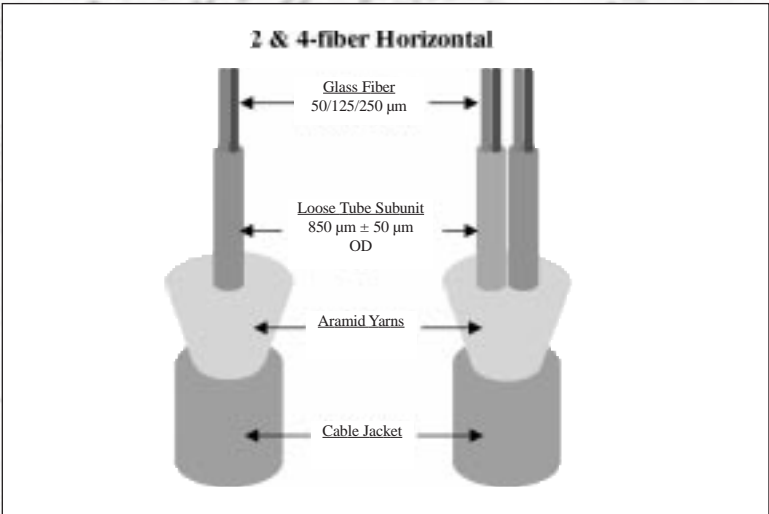
Specifications

Attenuation	Bandwidth
3.5 dB/km @ 850 nm max.	500 mhz-km @ 850 nm max.
1.5 dB/km @ 1300 nm max.	500 mhz-km @ 1300 nm max.

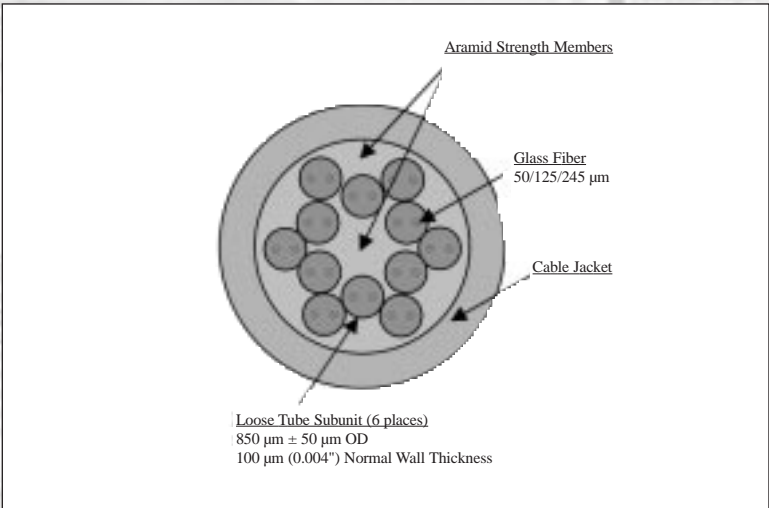
Operating Temperature Range -10° to 60°C
All cables meet the performance requirements in TIA/EIA specifications

The Volition™ Cabling System from 3M includes horizontal and backbone cable with 50/125 µm Infinicor 600 with Duraclad fiber supplied exclusively by Corning Incorporated.

2- and 4-fiber Horizontal



24-fiber Backbone



Specifications (Cont.)

Horizontal Cable 50/125 μ m 250 μ m coated MM

Model #	# of Fibers	Bend Radius, cm (short / long term)	Maximum Load (lb. / N)	Cable Outer Dia. (mm / in.)
VOL-H52P1	2-fiber	5.0 / 3.0	100 lb. / 440 N	2.8 mm / 0.110 in.
VOL-H52R1	2-fiber	5.0 / 3.0	100 lb. / 440 N	2.8 mm / 0.110 in.
VOL-H52L1	2-fiber	5.0 / 3.0	100 lb. / 440 N	2.8 mm / 0.110 in.
VOL-H54P1	4-fiber	5.0 / 3.0	100 lb. / 440 N	3.1 mm / 0.122 in.
VOL-H54R1	4-fiber	5.0 / 3.0	100 lb. / 440 N	3.1 mm / 0.122 in.
VOL-H54L1	4-fiber	5.0 / 3.0	100 lb. / 440 N	3.1 mm / 0.122 in.

Model #	# of Fibers	Weight per reel (kg / km)	Cable Rating	Jacket Color
VOL-H52P1	2-fiber	7.4 kg / km	OFNP	orange
VOL-H52R1	2-fiber	7.4 kg / km	OFNR	orange
VOL-H52L1	2-fiber	7.4 kg / km	LSZH	blue
VOL-H54P1	4-fiber	9.5 kg / km	OFNP	orange
VOL-H54R1	4-fiber	9.5 kg / km	OFNR	orange
VOL-H54L1	4-fiber	9.5 kg / km	LSZH	blue

Backbone Cable 50/125 μ m 250 μ m coated MM

Model #	# of Fibers	Bend Radius, cm (short / long term)	Maximum Load (lb. / N)	Cable Outer Dia. (mm / in.)
VOL-B56P1	6-fiber	6.6 / 4.4	150 lb. / 660 N	5.2 mm / 0.205 in.
VOL-B56R1	6-fiber	7.8 / 5.2	150 lb. / 660 N	5.2 mm / 0.205 in.
VOL-B56L1	6-fiber	7.8 / 5.2	150 lb. / 660 N	5.2 mm / 0.205 in.
VOL-B512P1	12-fiber	7.2 / 4.8	150 lb. / 660 N	5.6 mm / 0.220 in.
VOL-B512R1	12-fiber	8.4 / 5.6	150 lb. / 660 N	5.6 mm / 0.220 in.
VOL-B512L1	12-fiber	8.4 / 5.6	150 lb. / 660 N	5.6 mm / 0.220 in.
VOL-B524P1	24-fiber	8.6 / 5.7	150 lb. / 660 N	5.7 mm / 0.224 in.
VOL-B524R1	24-fiber	9.8 / 6.5	150 lb. / 660 N	6.5 mm / 0.256 in.
VOL-B524L1	24-fiber	9.8 / 6.5	150 lb. / 660 N	6.5 mm / 0.256 in.
VOL-B548P1	48-fiber	18.6 / 12.4	1263 lb. / 5618 N	12.4 mm / 0.488 in.
VOL-B548R1	48-fiber	18.9 / 12.6	1263 lb. / 5618 N	12.6 mm / 0.496 in.
VOL-B548L1	48-fiber	18.9 / 12.6	1263 lb. / 5618 N	12.6 mm / 0.49 in.

Model #	# of Fibers	Weight per reel (kg / km)	Cable Rating	Jacket Color
VOL-B56P1	6-fiber	15.0 kg / km	OFNP	orange
VOL-B56R1	6-fiber	16.4 kg / km	OFNR	orange
VOL-B56L1	6-fiber	16.4 kg / km	LSZH	blue
VOL-B512P1	12-fiber	16.0 kg / km	OFNP	orange
VOL-B512R1	12-fiber	26.8 kg / km	OFNR	orange
VOL-B512L1	12-fiber	26.8 kg / km	LSZH	blue
VOL-B524P1	24-fiber	27.0 kg / km	OFNP	orange
VOL-B524R1	24-fiber	37.2 kg / km	OFNR	orange
VOL-B524L1	24-fiber	37.2 kg / km	LSZH	blue
VOL-B548P1	48-fiber	120 kg / km	OFNP	orange
VOL-B548R1	48-fiber	125 kg / km	OFNR	orange
VOL-B548L1	48-fiber	125 kg / km	LSZH	blue

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