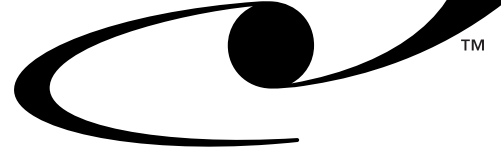


Volition™

VF-45™ Multimode Socket and Patch Cords



IT'S AS EASY AS PLUGGING IN AN RJ45.

The Volition Socket and Patch Cord is the latest duplex, fibre optic interconnect for affordable, high bandwidth, fibre-to-the-desk networks. The VF-45 plug and socket work like an 8-pin modular jack, bringing the simplicity of the RJ45 jack to optical fibre applications.

VF-45 sockets can be field terminated in patch panels and outlets for building backbone and horizontal cabling applications. Field termination on duplex multimode fibre using the Volition VF-45 Termination Kit takes less than two minutes, two fibres at a time!

The mating VF-45 plugs, factory terminated onto patch cords, enable interconnection from socket to socket or from socket to transceiver devices. VF-45 patch cords are provided in a variety of lengths and are also available in hybrid ST* or SC configurations. All patch cords are constructed with 3M's innovative 'GGP' polymer coated optical fibre, providing enhanced durability under tight bend radius conditions.

The VF-45 fibre optic interconnect is tested in accordance with and conforms to a combination of TIA, IEC and 3M specifications chosen to meet even the toughest customer expectations. The interconnect is the heart of a full system of Volition products which provide affordable, optical fibre, premises cabling solutions.

FEATURES

- Plug to socket design (no adapter needed)
- Small size duplex interconnect (half the size of a duplex SC connector)
- V-groove alignment with injection-moulded parts
- RJ45 style latch
- Socket - 3-piece snap together assembly
- Tested to TIA and IEC performance requirements
- Patch cords made with 3M's innovative coated fibre, GGP (requiring a minimum bend radius of only 24mm)
- Full line of Volition™ Network Solution products and services

BENEFITS

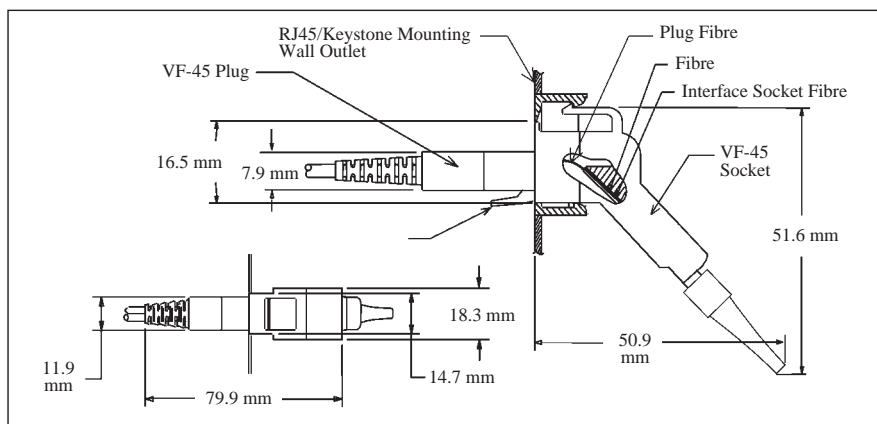
- Low cost
- High density
- No need for expensive ferrules, sleeves, or precision components
- Familiarity, easy to use
- Easy to install, lower labour costs
- Reliable
- Dependable
- Warranted system offering

VF-45™ Socket

Model No.	Description
VOL-0001	VF-45 Socket, multimode
VOL-0011	VF-45 Socket Fibre Holder

The VF-45 Socket (VOL-0001) includes socket base, housing, fibre holder and boot; complete for termination to 250 µm coated multimode fibre. Termination requires the VF-45 Socket Termination Kit (VOL-0562). The VF-45 Socket Fibre Holders (VOL-0011) may be purchased separately as replacement parts, if necessary.

VF-45™ Socket and Plug



Specifications - Volition VF-45 Socket and Plug

62.5 µm Insertion and Return Loss Typical Performance					50 µm Insertion and Return Loss Typical Performance				
Wavelength	Loss (dB)		Return Loss (dB)		Wavelength	Loss (dB)		Return Loss (dB)	
	1310	850	1310	850		1310	850	1310	850
Mean	0.21	0.28	29.2	27.2	Mean	0.29	0.19	32.5	33.1
Sigma	0.13	0.14	1.41	1.77	Sigma	0.15	0.11	0.89	0.93

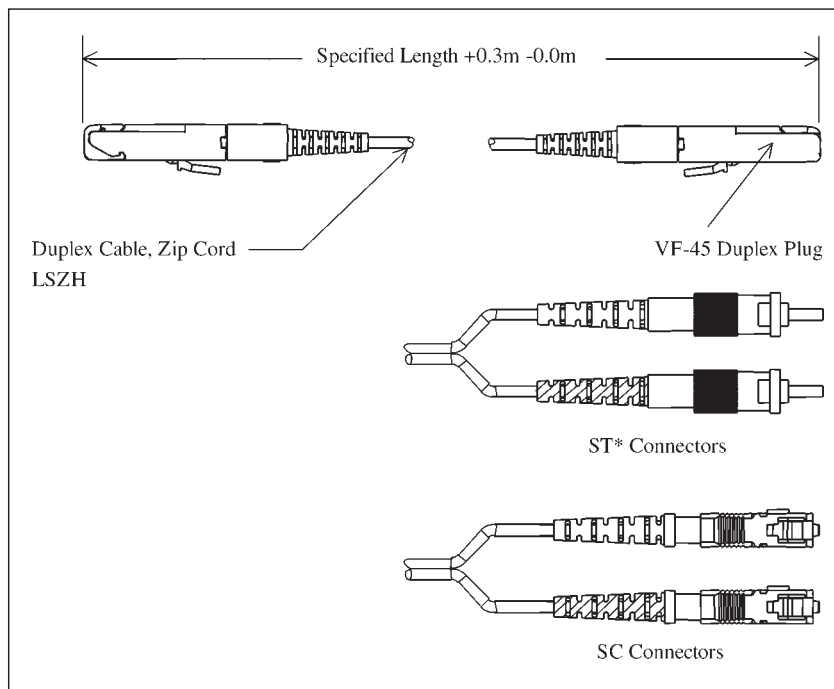
Specifications - Volition VF-45™ Socket and Plug continued

Parameter	TIA/EIA Fibre optic test procedure	IEC 61300 series test method	Severity	Performance
Attenuation:	171	3-4	n/a	≤0.75dB 0.5dB typical
Return loss:	107	3-6	n/a	>20dB
Mating durability:	21	2-2	500 cycles	≤0.75dB, >20dB RL
Impact:	2	2-12	8 drops at 1.5m	≤0.75dB, >20dB RL
Plug cable retention/ side pull:	6	2-4	66N at 0 degrees 6.6N at 90 degrees	≤0.75dB, >20dB RL
Strength of coupling:	185	2-6	33N	≤0.75dB, >20dB RL
Plug cabling flexing:	1	n/a	±90 degrees, 0.5kg 100 cycles	≤0.75dB, >20dB RL
Plug cable twist:	36	2-5	±2.5 revolutions, 15N	≤0.75dB, >20dB RL
Cold:	188	2-17	-10°C, 96 hours, sample functioning	≤0.75dB, >20dB RL ≤0.3dB atten. change
Heat:	4	2-18	+60°C 14 days, sample functioning	≤0.75dB, >20dB RL ≤0.3dB atten. change
Humidity:	5	2-19	+40°C, 90-95%RH, 96 hours, sample functioning	≤0.75dB, >20dB RL ≤0.4dB atten. change
Thermal cycling:	n/a	2-22	-10°C to +60°C 5 cycles	≤0.75dB, >20dB RL ≤0.3dB atten. change
Vibration:	n/a	2-1	10-55Hz, 30min each axis	≤0.75dB, >20dB RL ≤0.3dB atten. change

Note: Above performance applies to both 50µm and 62.5µm multimode fibre.

VF-45 Patch Cords

Material	Specification
Connector:	Engineering Thermoplastic UL-94 VO
Boot:	Thermoplastic Elastomer
Fibre:	62.5/125 µm or 50/125 µm multimode



The cable used to make Volition Patchcords is graded index multimode optical fibre with 100µm glass cladding diameter and 125µm polymer coating diameter. The polymer is a tough permanent coating, which provides improved strength and bend resistance. The static fatigue parameter is a 50% improvement over standard fibre. This high strength fibre is fully compatible and intermatable with standard glass fibre.

VF-45™ to VF-45 Patch Cords

Length [m]	50 µm core, LSZH	62.5 µm core, LSZH
1	VOL-V5L1	VOL-V6L1
1.5	VOL-V5L1.5	VOL-V6L1.5
2	VOL-V5L2	VOL-V6L2
3	VOL-V5L3	VOL-V6L3
5	VOL-V5L5	VOL-V6L5
6	VOL-V5L6	VOL-V6L6
8	VOL-V5L8	VOL-V6L8
15	VOL-V5L15	VOL-V6L15
30	VOL-V5L30	VOL-V6L30

VF-45 to ST Patch Cords

Length [m]	50 µm core, LSZH	62.5 µm core, LSZH
1	VOL-T5L1	VOL-T6L1
1.5	VOL-T5L1.5	VOL-T6L1.5
2	VOL-T5L2	VOL-T6L2
3	VOL-T5L3	VOL-T6L3
5	VOL-T5L5	VOL-T6L5
6	VOL-T5L6	VOL-T6L6
8	VOL-T5L8	VOL-T6L8
15	VOL-T5L15	VOL-T6L15
30	VOL-T5L30	VOL-T6L30

VF-45 to SC Patch Cords

Length [m]	50 µm core, LSZH	62.5 µm core, LSZH
1	VOL-C5L1	VOL-C6L1
1.5	VOL-C5L1.5	VOL-C6L1.5
2	VOL-C5L2	VOL-C6L2
3	VOL-C5L3	VOL-C6L3
5	VOL-C5L5	VOL-C6L5
6	VOL-C5L6	VOL-C6L6
8	VOL-C5L8	VOL-C6L8
15	VOL-C5L15	VOL-C6L15
30	VOL-C5L30	VOL-C6L30
100	VOL-C5L100	VOL-C6L100

Warranty

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Ref: QX 3800 0287 0