SMC™ S, M, L, XL Connector
SMC™ Adapter

V23834-L6-Ex[1]

Features

S, M, L, XL Connector

- Ultra-flat connector housing
- Spring loaded ferrule in the direction of the optical axis
- Reliable two-sided ESCON® -like latching mechanism
- Uniform pressure of connector endface to mated device
- Integrated mechanical keying to orient relative position between mated parts
- Prealignment (lateral guidance) of the connector housing when mating in an adapter or a receptacle
- Pins for optical alignment precision
- Endface polish guarantees fiber physical contact
- SMC adapter and module receptacle available

S Connector

- Extreme short connector housing
- SMC S without strain relief for ribbons, no boot

M Connector

- SMC M without strain relief for ribbons or ribbons with jacket, no boot

L, XL Connector

- SMC L without strain relief function, with boot
- SMC XL with strain relief for ribbon cable termination

Adapter

- Singlemode and multimode applications
- 1-to-1 / 1-to-12 coding
- Optional metal EMI shield with small cutout/retaining clip
- Snap-in and/or screw mounting
- Both adapter halfs riveted
- Design allows adapter stackability

S

M

L, XL

Adapter

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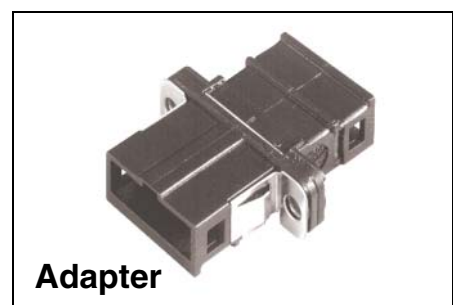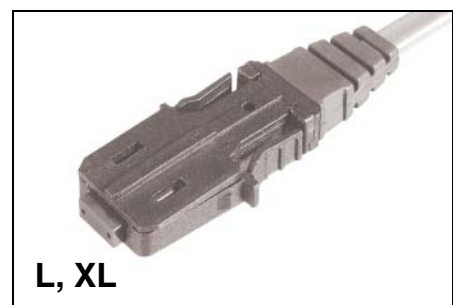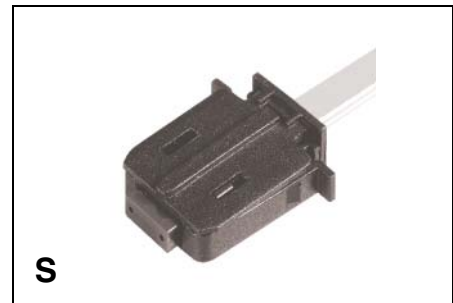
[1] For ordering information see next page

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ESCON® is a registered trademark of IBM

Description

Ordering Information

Part Number	
Connector Kit (without ferrule)	
V23834-L6-E5/E6	SMC S (f)/(m)[1]
V23834-L6-E3/E4	SMC M (f)/(m)[1]
V23834-L6-E1/E2	SMC XL (f)/(m)[1]
Jumper Type	
V23867-C6073-+yyy[1]	SMC S (f) - SMC S (f) (with blank ribbon)[1]
V23867-C6074-+yyy[1]	SMC M (f) - SMC M (f) (with blank ribbon)[1]
V23867-Cxx34-+yyy[1]	SMC XL (f) - SMC XL (f) (with cable)[1]
Adapter Type	
V23867-Z9999-W900	Simplex, black, 1 to 1, with plate
V23867-Z9999-W904	Simplex, black, 1 to 1, without plate
Other configurations on request	

[1] (f): female; (m): male; xx: cable code; +yyy: length code.

Connectors

The connector type SMC is an optical multifiber connector which is characterized by a standardized MT ferrule interface (fiber pitch is 250 µm) for up to 12 fibers. It was developed by Siemens/Infineon and specially designed for the PAROLI® module port.

The connector is now part of a whole SMC product family to be applied for a variety of state-of-the-art and future optical network technologies.

The MT ferrule characteristics meet the requirements of the standards IEC 60874-16 and IEC 61754-5. Work is in progress to define a fiber optical connector intermateability standard for the SMC (FOCIS-14, Ref. no. SP-4834, to be TIA/EIA-604-14).

Adapter

The SMC adapter is part of the SMC optical connector family. It serves to connect mechanically two SMC connector plugs with up to 12 fibers applied for a variety of state-of-the-art and future optical network technologies.

Technical Data

Absolute Maximum Ratings

Parameter	Symbol	Limit Values		Unit
		min.	max.	
Operating Temperature		−20	70	°C
Storage/Shipping Temperature		−40	70	

Connectors

Parameter	Limit Values			Unit
	min.	typ.	max.	
IL/per fiber, MM[1]		≤ 0.2	0.75	dB
CL/per fiber, SM[2]		≤ 0.3	0.75	
RL/per fiber, SM[3]	50			
Durability/Matings			1000	times
Repeatability		≤ 0.2		ΔdB
Cable Retention Force XL		100		N
Insertion Force S, M, L XL		13 18	18 30	
Withdrawal Force		4	7	
Flammability Class	UL94 V-1			
Connector Dimensions	see **Figure 1**, **Figure 2**, **Figure 3**			mm
Ferrule Dimensions	8.0 x 6.4 x 2.45			
Ferrule Endface	flat or angled polished (SM)			
Housing Color	black or beige			

[1] Insertion Loss, multimode.

[2] Connection Loss, singlemode, preliminary.

[3] Return Loss, singlemode, preliminary.

Adapter

Parameter	Limit Values		Unit
	typ.	**max.**	
Attenuation (connector to connector)	≤ 0.15	0.75	dB
Durability/Matings		1000	times
Repeatability	≤ 0.2		dB
Latch Retention Force (coupling strength)	80		N
EMI effective cutout	7.5 x 3.5	18	mm
Flammability Class	UL94 V-0		
Physical Dimensions	see **Figure 4**		mm
Housing Color	black or beige		

Materials

Part	Material
Connectors	
Housing	PBT
Ferrule	Mineral filled thermoset epoxy
Spring	Stainless steel
Pin	
Pin Holder	
Strain relief clamp[1]	Copper
Boot[2]	TPR, black
Dust Cap	
Adapter	
Housing	PPS
Mounting plate	Stainless steel
Rivet	DIN 7340 B3x0.25x4-Ms/nickel-plated (for M2.5 screw mounting)

[1] XL Connector only.

[2] L, XL Connector only.

Application Note

S Connector

Reliable multiple-link and high-bandwidth on-board applications.

M, L Connector

Reliable multiple-link and high-bandwidth on-board and in-rack applications.

XL Connector

Reliable multiple-link and high-bandwidth in-rack, rack-to-rack and patch applications.

Small interface for direct attach harness, fan-out routing and trunk cable connections.

Platform of backplane connector and fabric computer clustering.

S, M, L, XL Connector, Adapter

Connector-adapter-connector and jumper configurations are compliant to commercial performance standards Bellcore GR-1435-CORE, IEC 60874-1 and EIA/TIA-455 FOTP requirements.

Multimode applications qualified, singlemode applications are newly engineered.

Package Outlines

Dimensions in mm
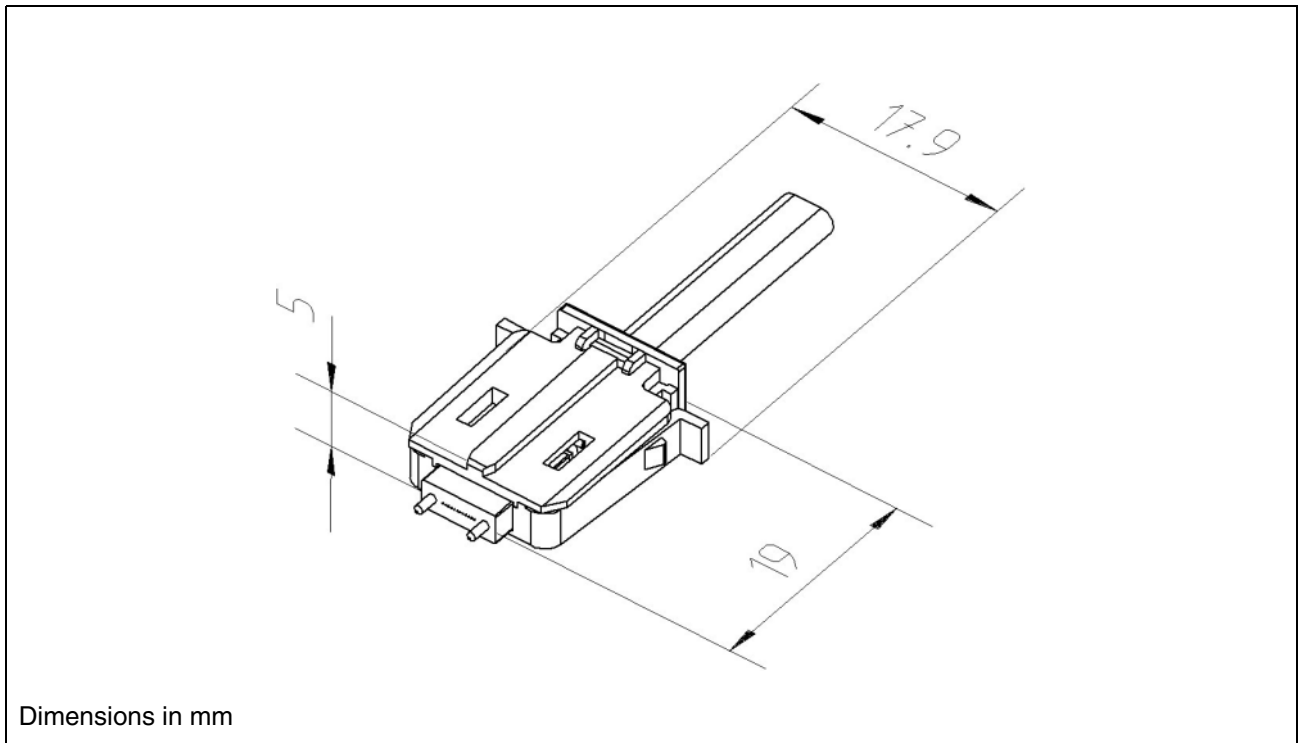
Figure 1   S Connector, Male Version

Dimensions in mm
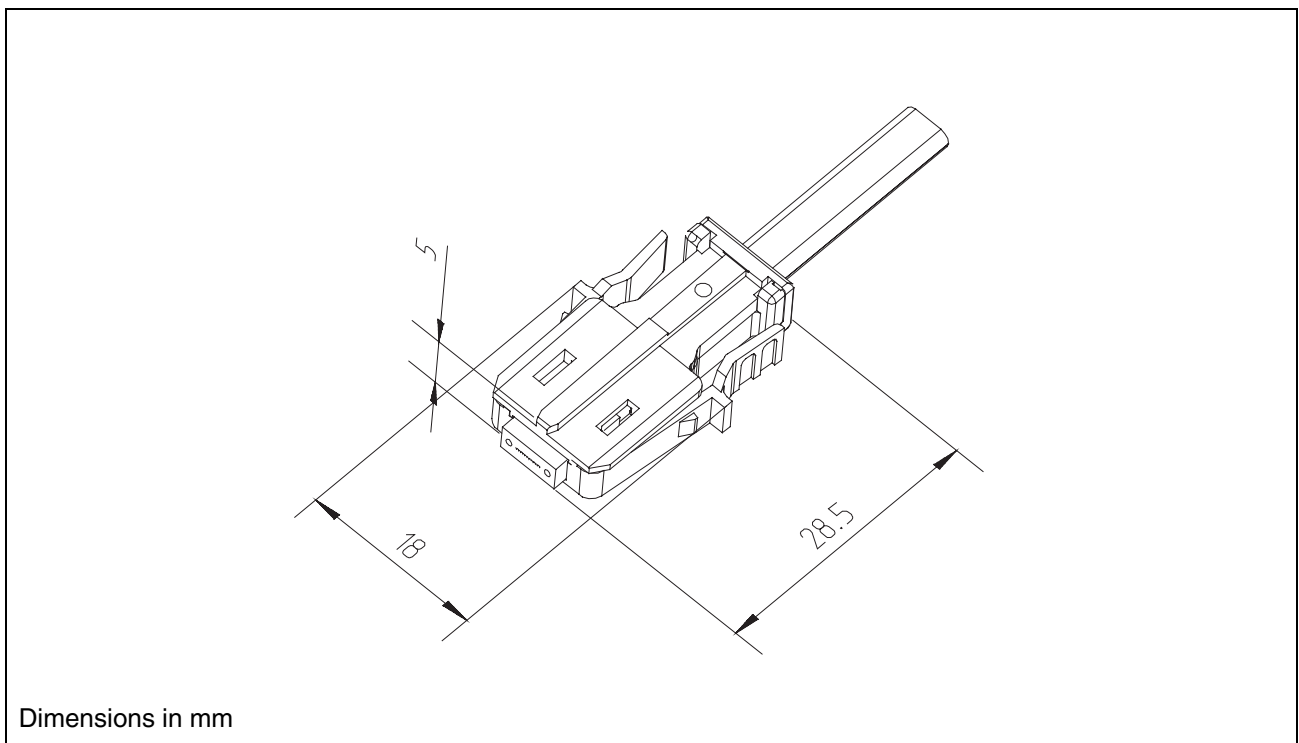
Figure 2   M Connector, Female Version

Dimensions in mm
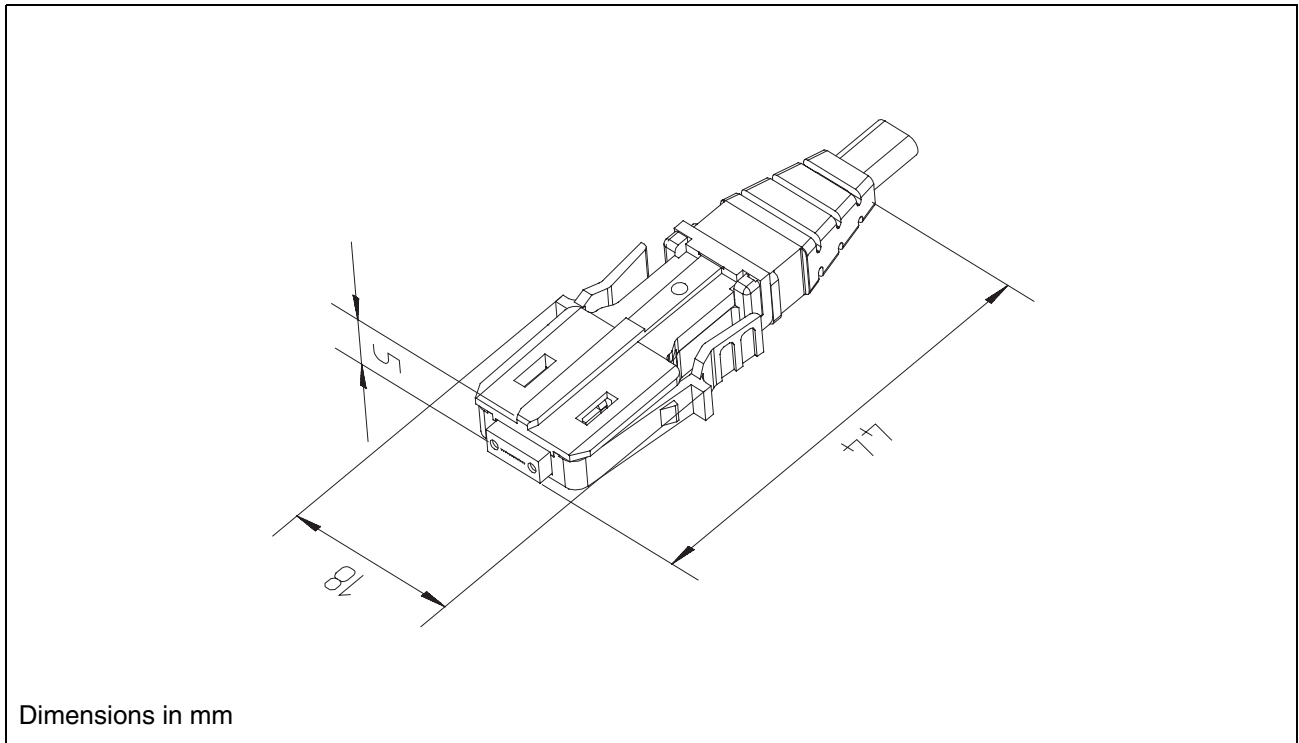
Figure 3   L, XL Connector, Female Version
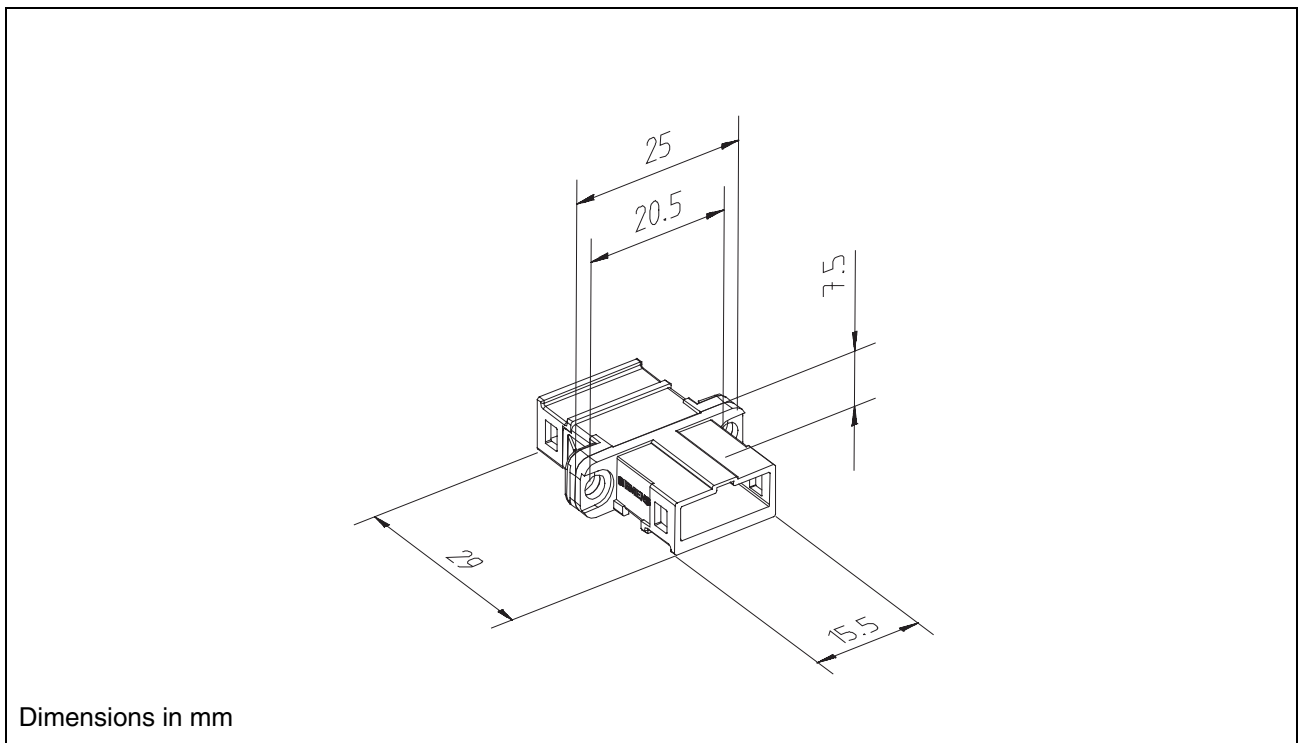
Dimensions in mm

Figure 4   Adapter

V23834-L6-Ex

For questions on technology, delivery and prices please contact the Infineon Technologies Offices in Germany or the Infineon Technologies Companies and Representatives worldwide: see our webpage at http://www.infineon.com.