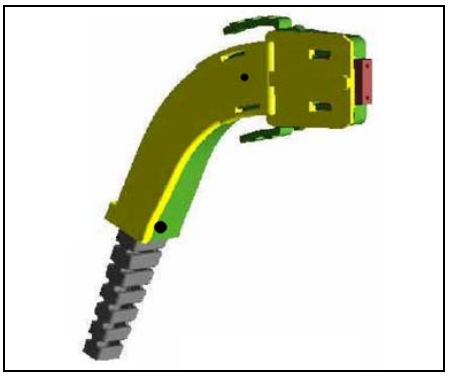
SMC™ SB Connector Jumper V23867-+xx91-+yyy

Preliminary Data

Features



- Ultra-flat and special bent connector body with R_{min} = 20
- Minimal radius allows nearly 90° bend & twist of cable
- Soft boot for small bend & twist also outside of the body
- Connector plug contains strain relief for ribbon cable
- 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
- Lateral guidance of connector housing when mating in an SMC adapter or a module receptacle
- Pins for optical alignment precision (male version)

Description

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

The SMC SB is primarily designed for restricted space applications putting the main emphasis on to protect the optical fibers in the body (see also section Application Note). The plug is part of a whole SMC product family to be applied for various state-of-the-art connectivity solutions and even future optical networking technologies.

The MT ferrule characteristics meet the requirements of the international standards IEC 60874-16 and IEC 61754-5. The SMC interface is proposed to be adopted by TIA as fiber optic connector intermateability standard TIA/EIA-604-14 (FOCIS-14), Ref. SP-4834.

Part Number	
V23867-+xx91-+yyy	SMC (f) - SMC (f) jumper with simplex ribbon cable[1)]

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

Technical Data

Absolute Maximum Ratings

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

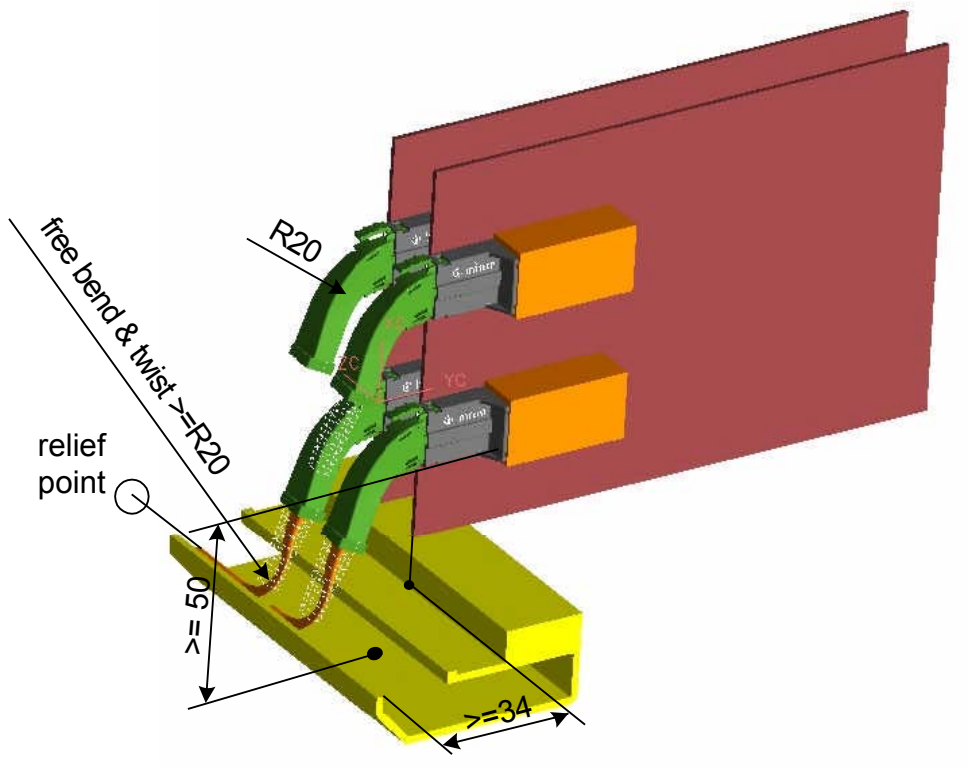
Parameter	Limit Values		Unit
	typ.	max.	
IL/per fiber, MM[1)]	≤ 0.2	0.75	dB
Durability/Matings		200	times
Repeatability	≤ 0.2		Δ dB
Cable Retention Force[2)]		33	N
Latch Retention F. Axial Pull Force[3)]	to be ignored here, no practical importance		
Side Pull Force[3)]	1	10	N
Off-axis Pull Force[3)]	1	2	
Insertion Force	18	30	
Withdrawal Force	4	7	
Flammability	min. UL94 V-1		
Ferrule Dimensions	8.0 x 6.4 x 2.45		mm
Ferrule Endface	flat polished, fiber protrusion		
Housing Color	black or beige		

1) Insertion Loss, multimode.
2) Cable-to-connector, installation.
3) With respect to module orientation, see drawing, (typ. ≡ long term, max. ≡ short term).

Materials

Part	Material
Housing	PBT, UL 94 V-0
Ferrule	Mineral filled thermoset epoxy
Spring	Stainless steel
Pin	Stainless steel (male version)
Pin Holder	
Strain relief	Cu, glue
Boot	TPR, black, UL 94 V-1
Dust Cap	

Application Note



Dimensions in mm

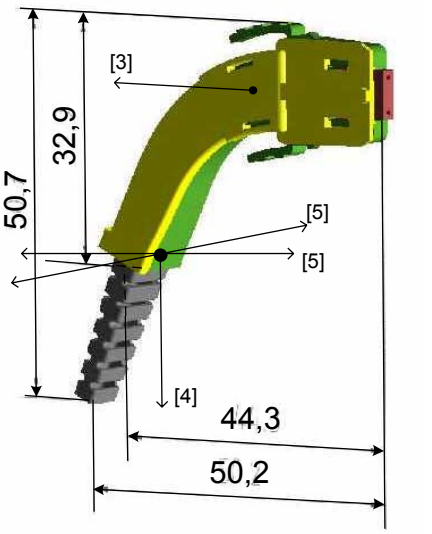
Figure 1 Example of Board with PAROLI® Modules and 4 SMC SB Connectors

Notes:

- *The cable boot (drawn in white broken lines) is made of a soft plastic material which allows it, on the one hand, to follow the cable bend movement in the channel nestling against the cable jacket. But on the other hand it prevents the cable from a to small bend radius.*
- *The bend of the connector housing and of the fiber ribbon inside is R = 20 mm. The same value is applied for twist & bend when guiding the cable to the cable track.*
- *The small bend radius is only allowed assuming that there is no additional stress (e.g. pull strain). Therefore the cable(s) should be relieved at a central relief point to avoid damages in the fiber and in the connector/module receptacle due to pull forces higher than allowed in the specification.*

Package Outlines

Female Version



Dimensions in mm

Figure 2

V23867-+xx91-+yyy

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Previous Version:

Page	Subjects (major changes since last revision)
	Document's layout has been changed: 2002-Aug.

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