



**SANWA**  
TECHNOLOGIES

# FC ST SMA SERIES

Industrial applications, military systems, and security networks

We Create, We Customize, We Connect





# SANWA

## T E C H N O L O G I E S

### **Providing engineering excellence, connecting you and beyond.**

SANWA Technologies Co., Ltd. (formerly Sanwa Denki Kogyo Co., Ltd.) was established in 1947 and has since become a renowned manufacturer of communication and connectivity solutions, specializing in the global optical communications market. With over 75 years of innovation and engineering excellence, SANWA has developed and manufactured high-quality connectivity solutions and components to enhance the performance of optical networks both today and for the future.

### **Manufacturers designing products since 1947.**

SANWA specializes in optical solutions that serve a broad range of international customers within the Telecom, Enterprise, Datacom, Premise wiring, CATV, OEM, Utility, Municipality, Security, and Aerospace/Military markets. With over 40 years of experience in fiber optic components and passive assembly manufacturing, we offer a variety of products and custom solutions tailored to your needs.

### **Our Vision**

For over 75 years, SANWA has sought to establish relationships that are beyond transactional. Diligently collaborating on both custom and standard products with expeditious local support. Over time, we have transformed the traditional Japanese manufacturing philosophy, Monozukuri, exemplified in our everyday pursuit of manufacturing thoughtfulness, and equally focus on all aspects of product delivery: quality, time, and service.

## ADVANCING TOGETHER, FORGING THE FUTURE

At SANWA Technologies, we take great pride in our world-class manufacturing facilities that empower us to deliver high-quality products to our valued customers.

With two state-of-the-art factories, strategically located in Tokyo, Japan, and Ayutthaya, Thailand, we strive for excellence through cutting-edge technology, precision engineering, and a dedicated focus on quality. Each facility serves a unique purpose, allowing us to meet the diverse needs of our global clientele.

### **Japan Hachioji Factory: Leading Innovation and Research**

Our Hachioji factory, nestled in the western part of Tokyo, is the epitome of innovation and research. Equipped with the latest advancements in manufacturing technology, this facility drives our relentless pursuit of excellence. Our team of seasoned experts leads research and product development, ensuring that SANWA Technologies remains at the forefront of industry advancements. The factory also houses a robust QA, QC, and General Qualification Lab, where every product undergoes stringent testing to meet the highest quality standards. With a focus on low-volume and BCP production, as well as automated MT production and active device production, our Hachioji factory is a hub of progress and ingenuity.



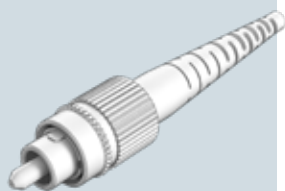
### **Thailand Ayutthaya Factory: Powering High-Volume Production**

Nestled in Ayutthaya, Thailand, our second manufacturing facility is a powerhouse dedicated to high-volume production. With a sharp focus on efficiency and precision, this factory houses cutting-edge equipment for high-volume injection molding and precision assembly and testing. Quality is paramount, and our dedicated QA and QC Lab ensures that each product meets our stringent quality guidelines. We also prioritize tooling maintenance and repair, guaranteeing optimal performance and precision throughout the manufacturing process. For critical processes that demand a controlled environment, our Thailand factory boasts a semi-clean room, enabling us to deliver products with unparalleled purity and accuracy.



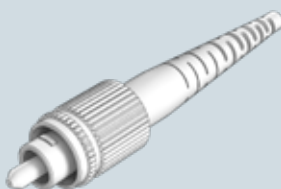


**FC HIGH SPEC  
PRE-ASSEMBLED**



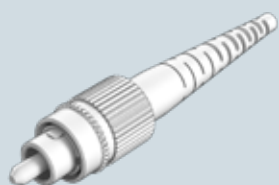
CODE		KEY		FERRULE I.D.		BOOT		COLOR	
CN-FCE	Elite Connector	1	Standard	1255	SM: 125.5µm	1	900µm Smooth Fiber Short	1	Blue
CN-FC	High Spec Connector	2	Key Ring	126	SM: 126µm	2	900µm High Spec Slotted Boot	2	Black
				125	SM: 125µm	3	2.0mm Standard Boot	3	Green
				127	MM: 127µm	4	2.0mm High Spec FC/ST Boot	4	Beige
				230	MM: 230µm	5	2.0mm Smooth Short Boot	5	Aqua
				144	MM: 144µm	6	2.4mm Smooth Short Boot	6	Red
				7	3.0mm Smooth Short Boot	7	Yellow		
8	3.0mm Standard Boot	8	White						
9	3.0mm High Spec FC/ST Boot	9							

**FC HIGH SPEC  
APC  
PRE-ASSEMBLED**



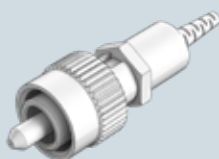
CODE		KEY		FERRULE I.D.		FERRULE POLISH		BOOT	
CN-FCASE	Elite Step Ferrule	1	Standard	1255	SM: 125.5µm	1	No Angle	1	900µm Smooth Fiber Short
CN-FCACE	Elite Conical Ferrule	2	Key Ring	126	SM: 126µm	2	8° Pre-Angle	2	900µm High Spec Slotted Boot
CN-FCAS	Step Ferrule			125	SM: 125µm			3	2.0mm Standard Boot
CN-FCAC	Conical Ferrule							4	2.0mm High Spec FC/ST Boot
								5	2.0mm Smooth Short Boot
								6	2.4mm Smooth Short Boot
								7	3.0mm Smooth Short Boot
								8	3.0mm Standard Boot
								9	3.0mm High Spec FC/ST Boot

**FC SIMPLEX  
CONNECTOR  
PRE-ASSEMBLED**



CODE		KEY		FERRULE I.D.		BOOT		COLOR	
SFC-PHPR	FC Simplex Connector	N	Narrow Key	1255S	SM: 125.5um	09	900um	BL	Blue
		W	Wide Key	127M	MM: 127um	20	2.0mm	BK	Black
				1255AP	APC: 125.5um	30	3.0mm	GR	Green

**FC PM  
CONNECTOR  
PRE-ASSEMBLED**



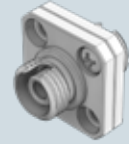
CODE	TYPE	KEY WIDTH		FERRULE I.D.		BOOT TYPE		BOOT COLOR	
SFC-PHPR	FC PM Connector	N	Narrow Key	1255S	SM: 125.5um	09P	900µm	BL	Blue
		W	Wide Key	1255AP	APC: 125.5um	20P	2.0mm	BK	Black
						30P	3.0mm	GR	Green



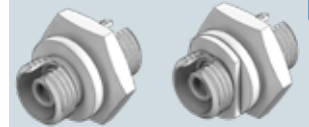


FC ADAPTERS

FC SQUARE ADAPTER



FC ROUND & OVAL ADAPTER

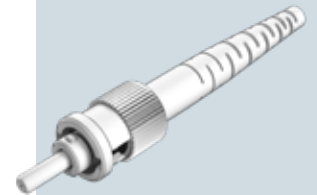


ADAPTER TYPE		SLEEVE		KEY WIDTH	
AD-FC2P	Standard Body - MM/SM	1	Zirconia Straight Split	1	For PC Connector 2.15 +0.05/-0
AD-FC1P	Solid Body - MM/SM	2	Phosphor Bronze	2	For APC Connector 2.05 +/-0.02

ADAPTER TYPE		SLEEVE		KEY WIDTH	
AD-FCRD	FC Adapter "D"	1	Zirconia Straight Split	1	For PC Connector 2.15 +0.05/-0
AD-FCRDD	FC Adapter "DD"	2	Phosphor Bronze	2	For APC Connector 2.05 +/- 0.02

ADAPTER TYPE		SLEEVE		KEY WIDTH	
AD-FCOV	FC Oval Adapter "HD"	1	Zirconia Straight Split	1	For PC Connector 2.15 +0.05/-0
		2	Phosphor Bronze	2	For APC Connector 2.05 +/- 0.02

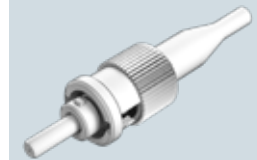
ST HIGH SPEC PRE-ASSEMBLED



ST SERIES

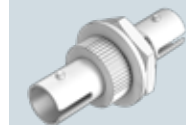
CODE		FERRULE I.D.		BOOT			BOOT COLOR	
CN-ST	Elite ST-2 type	125	SM: 125µm	1	900µm Smooth Fiber Short	1	Blue	
CN-ST	High Spec ST-2 type	1255	SM: 125.5µm	2	900µm High Spec Slotted Boot	2	Black	
				3	2.0mm Standard Boot	3	Green	
				4	2.0mm High Spec FC/ST Boot	4	Beige	
				5	2.0mm Smooth Short Boot	6	Red	
				6	2.4mm Smooth Short Boot	7	Yellow	
				7	3.0mm Smooth Short Boot	8	White	
				8	3.0mm Standard Boot			
				9	3.0mm High Spec FC/ST Boot			

ST STANDARD



CODE		FERRULE I.D.		BOOT			BOOT COLOR	
CN-ST	Standard	1255	SM: 125.5µm	1	900µm Smooth Fiber Short	1	Blue	
				3	2.0mm Standard Boot	2	Black	
				4	3.0mm Standard Boot	4	Beige	
				6		6	Red	
				7	Yellow			
				8	White			

ST ADAPTER



CODE		COLOR		SLEEVE	
AD-STSX	Simplex Metal Housing	1	Blue	1	Zirconia Straight Split
AD-STD	Duplex Horizontal Metal Housing	4	Beige	2	Phosphor Bronze
AD-STDXP	Duplex Horizontal Plastic Housing				

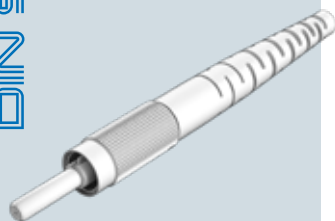
Interconnect-SNW-Rev 3.0 - Changes without prior notice





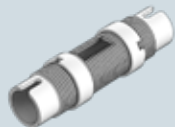
DIN SERIES

**DIN HIGH SPEC  
PRE-ASSEMBLED**



CODE		FERRULE I.D.		BOOT TYPE		BOOT COLOR	
CN-DIN	DIN Connector PC	125	SM: 125µm	1	900um Smooth Fiber Short Boot	1	Blue
CN-DINA	DIN Connector APC	1255	SM: 12.5µm	3	2.0mm Standard Boot	2	Black
		126	SM: 126µm	8	3.0mm Standard Boot	3	Green
						4	Beige
						6	Red
					7	Yellow	
					8	White	

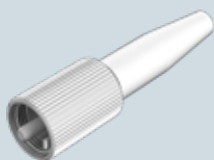
**DIN ADAPTER**



CODE		SLEEVE	
AD-DIN	Din Adapter	1	Zirconia Straight Split
		2	Phosphor Bronze

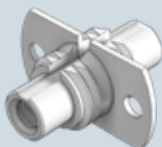
D4 SERIES

**D4 CONNECTOR**



CODE		FERRULE I.D.		BOOT TYPE		BOOT COLOR	
CN-D4	D4 Crimp Style	125	SM: 125µm	1	900um Smooth Fiber Short Boot	1	Blue
		126	SM: 126µm	3	2.0mm Standard Boot	2	Black
				8	3.0mm Standard Boot	3	Green
					4	Beige	
					5	Aqua	
					6	Red	
					7	Yellow	

**D4 ADAPTER**



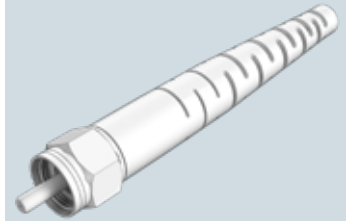
CODE		SLEEVE	
AD-D4	D4 Adapter	2	Phosphor Bronze Split





CODE		FERRULE I.D.		BOOT TYPE		BOOT COLOR	
CN-SMA	SMA with Hex Nut	127	MM: 127µm	8	3.0mm Standard Boot	1	Blue
		144	MM: 144µm			2	Black
		230	MM: 230µm			3	Green
		240	MM: 240µm			4	Beige
		245	MM: 245µm			6	Red
		250	MM: 250µm			7	Yellow
		360	MM: 360µm			8	White
		460	MM: 460µm			X	Custom

SMA CONNECTOR



CODE		SLEEVE	
AD-SMA	SMA Adapter	1	Zirconia
		2	Phosphor Bronze

SMA ADAPTER



FERRULE		INNER DIAMETER		FERRULE		FLANGE	
F-SMA-M	SMA Connectors Multimode	127	127µm	1	Zirconia	NF	No Flange
		144	144µm				
		230	230µm				
		245	245µm				
		440	440µm				
		720	720µm				

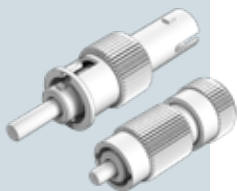
FERRULES  
SMA MULTIMODE



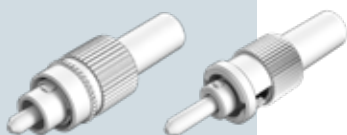


ATTENUATORS  
& TERMINATORS

ATTENUATORS



TERMINATORS

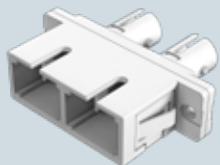


CODE		TYPE		CONNECTOR TYPE		ATTENUATION LEVEL	
AT	Doped Fiber Attenuators	1	Standard	FCA	FC APC	01	1dB
		2	Special	FC	FC UPC	03	3dB
S	Specify	S	Specify	STA	ST APC	04	4dB
				ST	ST UPC	05	5dB
						07	7dB
						08	8dB
						09	9dB
						10	10dB
						12	12dB
						15	15dB
						20	20dB
						25	25dB
						30	30dB

PRODUCT	CONNECTOR TYPE	
TM	FCA	FC APC
	FC	FC UPC
	STA	ST APC
	ST	ST UPC

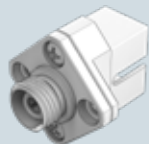
HYBRID ADAPTER

SC-ST HYBRID ADAPTER



CODE/ADAPTER TYPE		COLOR (PLASTIC)		SLEEVE	
ADH-SCST-RT-M	Simplex Metal, Rectangular Flange	1	Blue	1	Zirconia
ADH-SCSTDX-M	Duplex Metal, Rectangular Flange	4	Beige	2	Phosphor Bronze
ADH-SCSTDX-P	Duplex Plastic, Blue, Rectangular Flange				
ADH-SCSTDX-P	Duplex Plastic, Beige, Rectangular Flange				

SC-FC HYBRID ADAPTER



CODE/ADAPTER TYPE		KEY WIDTH		SLEEVE	
ADH-SCFC-SQ	Square Flange	1	For PC Connector: 2.15+0.05/-0	1	Zirconia
ADH-SCFC-RT	Rectangular Flange	2	For APC Connector: 2.05 +/- 0.02	2	Phosphor Bronze

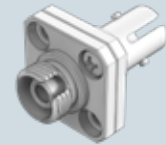






CODE/ADAPTER TYPE		SLEEVE	
ADH-STFC-SQ	Square Flange	1	Zirconia
ADH-STFC-RT	Rectangular Flange	2	Phosphor Bronze

ST-FC HYBRID ADAPTER



FERRULE		INNER DIAMETER		FLANGE	
F-SC-S	SC & FC Connectors Singlemode	125	125µm	NF	No Flange
		1255	125.5µm	FL	4 Slot Flange
		126	126µm		

ZIRCONIA FERRULES  
SC FC SINGLEMODE



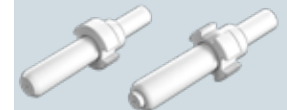
FERRULE		ENDFACE		INNER DIAMETER		FLANGE	
F	SC & FC Connectors	SCAS	APC Step	125	125µm	NF	No Flange
		SCAC	APC Conical	1255	125.5µm	FL	APC Flange, 1.35mm keywidth
				126	126µm		

ZIRCONIA FERRULES  
SC-APC FC-APC



FERRULE		INNER DIAMETER		FLANGE	
F-SC-M	SC & FC Connectors Multimode	127	127µm	NF	No Flange
		144	144µm	FL	4 Slot Flange
		230	230µm		

ZIRCONIA FERRULES  
SC FC MULTIMODE



SLEEVE		INNER DIAMETER		LENGTH	
S-ZR	Zirconia Sleeve	250	2.49mm	ST	10.1mm ST
				SC	10.4 SC&FC

ZIRCONIA  
ADAPTERS SLEEVES

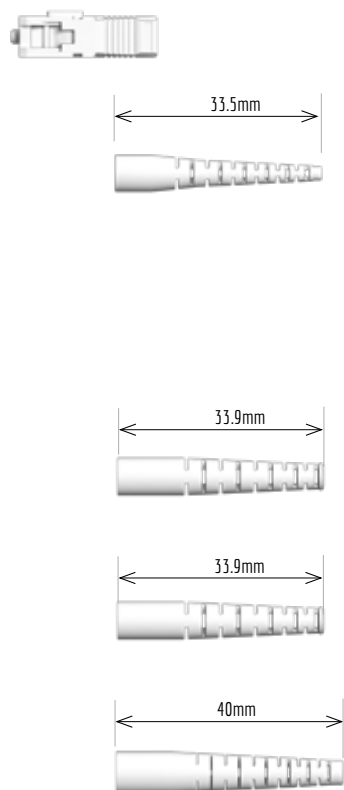


SANWA

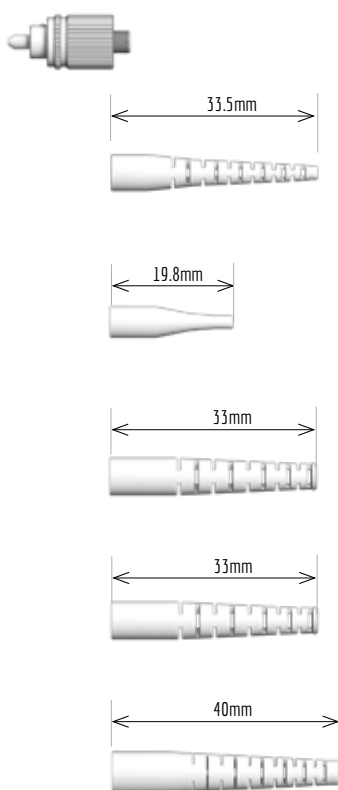




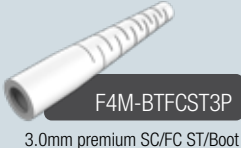
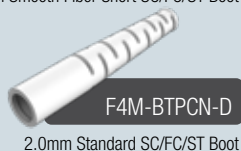
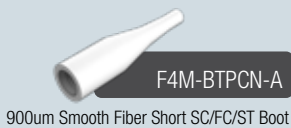
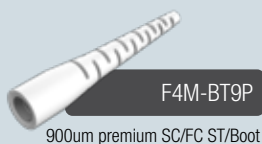
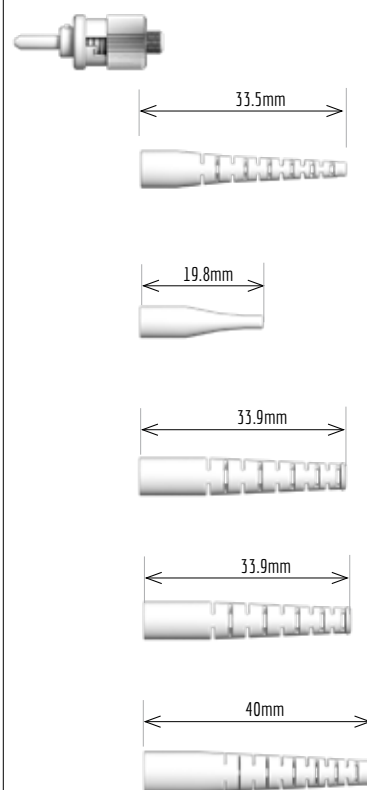
**SC BOOTS**



**FC BOOTS**



**ST BOOTS**



STANDARD BOOTS	
BOOT CODE	DESCRIPTION

SC / FC / ST BOOTS	
F4M-BTPCN-A	900um Smooth Fiber Short SC/FC/ST Boot
F4M-BTPCN-D	2.0mm Standard SC/FC/ST Boot
F4M-BT2S	2.0mm Smooth Short SC/FC/ST Boot
F4M-BT24S	2.4mm Smooth Short SC/FC/ST Boot
F4M-BT3S	3.0mm Smooth Short SC/FC/ST Boot
F4M-BTPCN-H	3.0mm Standard SC/FC/ST Boot
F4M-BTFCST3P	3.0mm High Spec SC/FC/ST Boot

CRIMP RING, PREMIUM SC/FC/ST	
F4M-CR12-P	1.2mm
F4M-CR16-P	1.6mm
F4M-CR2-P	2.0mm
F4M-CR24-P	2.4mm
F4M-CR3-P	3.0mm

1.6mm Option: SANWA TECH Offers a 1.6mm Crimp Ring that is compatible with all 2.0mm boots listed above.

BOOT COLOR	
1	Blue
2	Black
3	Green
4	Beige
5	Aqua
6	Red
7	Yellow
8	White
0	Gray





	TIA/EIA,IEC& GR-326-CORE	RoHS & REACH
Simplex Connectors	•	•
PM Connectors	•	•
Adapter Series	•	•
Attenuators	GR-910-CORE	•

SANWA offers a comprehensive range of standard connectors, including FC, ST, Din, SMA, and more. These connectors are designed to meet the diverse needs of optical fiber transmission systems. All Design choice enhances productivity and provides cost-effectiveness. The connectors offer superior durability and robustness, ensuring optimal performance and longevity in various optical fiber applications.

Application

- LAN, CATV, FA, OA general system's equipment
- Medium and long distance optical fiber transmission lines
- Test and Measurement equipment

## OVER THE WORLD

SANWA product selection offers a wide range of high-quality and reliable solutions for various applications. Fiber optic technology is known for its ability to transmit data at incredibly fast speeds over long distances, making it ideal for telecommunications, networking, and data center environments.



- USA
- EUROPE
- MIDDLE EAST
- TAIWAN
- THAILAND
- JAPAN



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