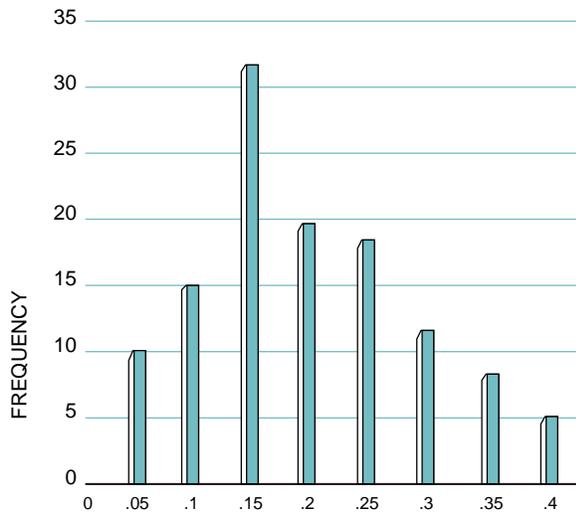
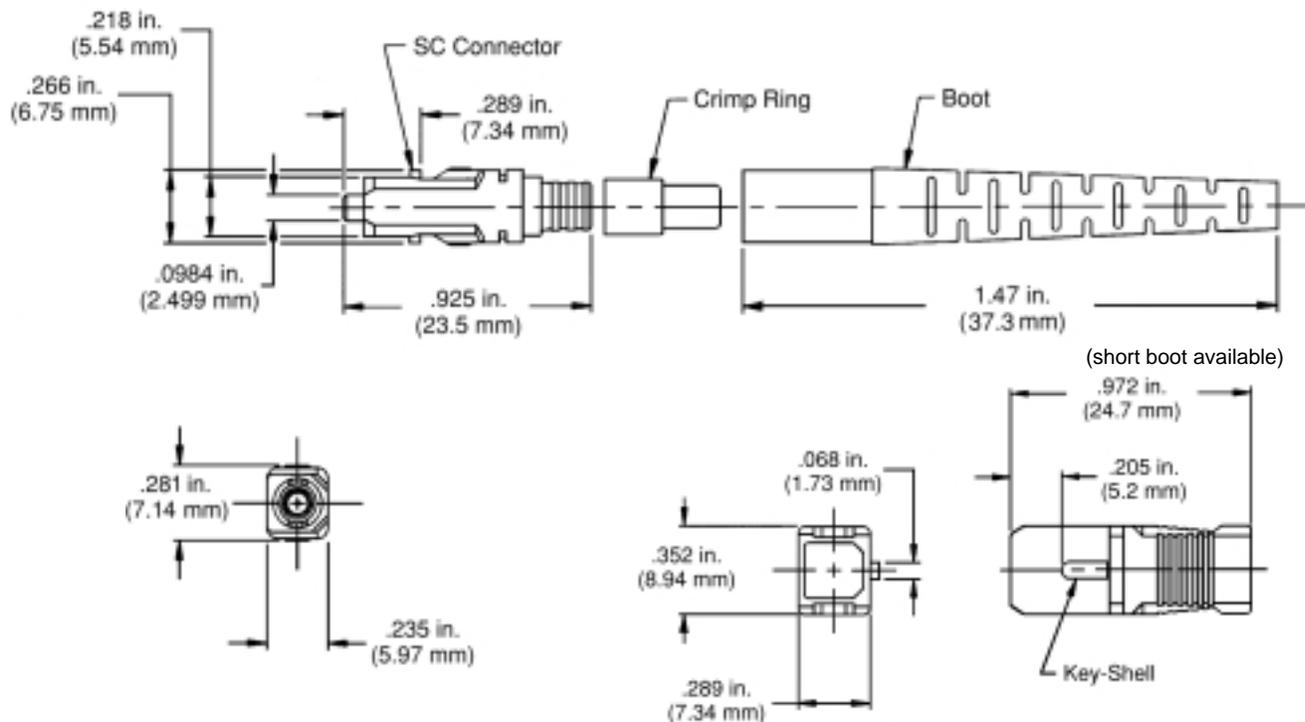


# SC Connectors and Cable Assemblies

Features	Benefits
Intermateable within NTT specifications	No retrofit, compatibility issues
Push pull mating	High density, repeatable connections
Pull-proof (independent) ferrule	Maintains optical contact
3M PC finish	Excellent transmission performance
Zirconia ceramic ferrule	Reduces reflectance problems Factory polish to -55 dB reflections (single-mode epoxy only)* Field polish to -45 dB reflections (single-mode epoxy only)*
Thermoplastic shell	Corrosion resistant
Fewer parts	Fast, simple termination

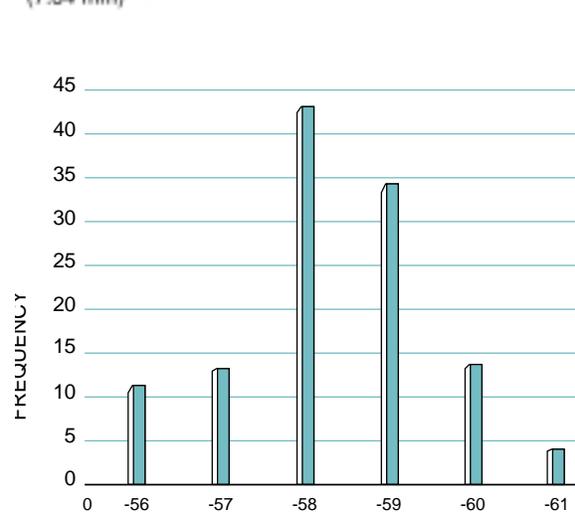
## Hot Melt Version Only (in addition to above)

Pre-loaded Hot Melt adhesive	Extended shelf life, fewer consumables (saves money)
No waiting for epoxy to cure	Termination in 2 minutes (productivity)
Single step polish	Only one abrasive to buy; faster polishing (reduces cost)



Single-Mode Epoxy Insertion Loss (dB)

Mean: 0.19 dB; SiGma: 0.085 dB PoPulation Size = 121 Pieces



Single-Mode Epoxy Reflection (dB)

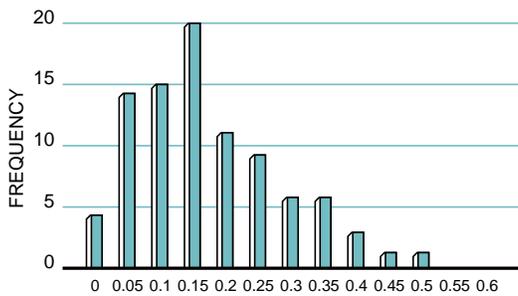
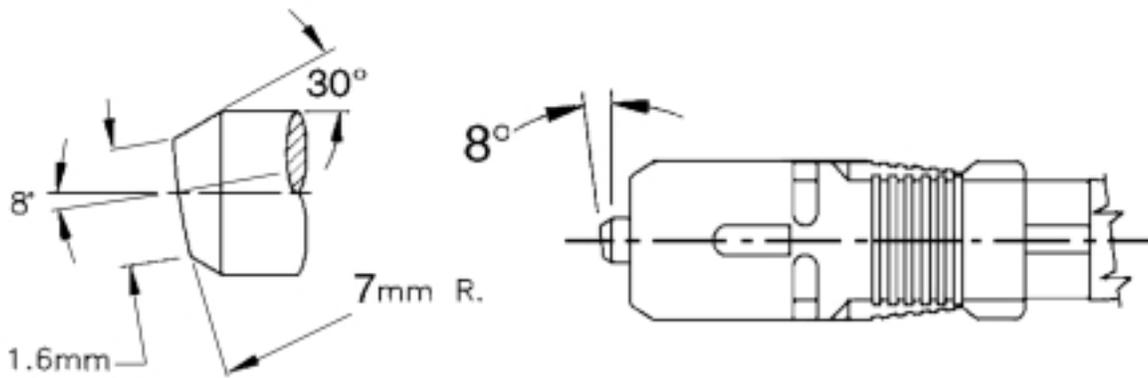
Mean: -.58dB; SiGma: 1.01 dB PoPulation Size = 121 Pieces

# SC 8° Angled PC Cable Assemblies

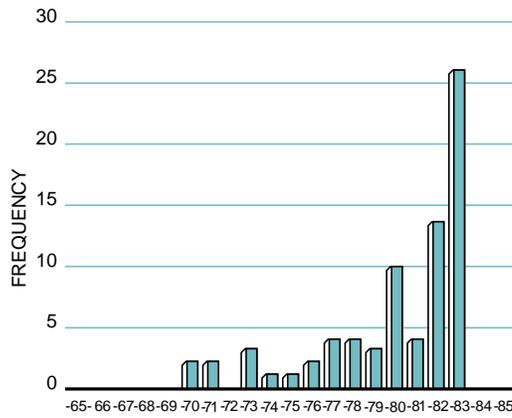
Features	Benefits
8° Angle polish on ferrule (patents issued US 5,351,327, US 5,458,582, US 5,321,784)	Low reflections, mated or unmated; intermateable with other SC 8° angled connectors meeting industry standards
Contacting fibers	Low, stable insertion loss
Isolated ferrule design	Not affected by cable disturbance
Push-pull mating (SC)	High density, repeatable connections
Zirconia ceramic ferrule	Durable, compliant material
Thermoplastic shell	Corrosion resistant

## SC 8° Angled PC Cable Assemblies, Single-mode

In order to meet the system requirements of the cable TV industry and other high-speed digital systems, 3M has developed a single-mode SC 8° angle-polished connector to minimize reflections to a mean of -80 dB.



SC 8° Angled Insertion Loss (dB)



SC 8° Angled Reflection (dB)

## Specifications for SC Connectors

	Multimode			Single-mode			
Product Number	6300	6900	6306	8300	8306 8307	8900	8306-APC
Connector type	Hot Melt	Crimplok™	Epoxy	Hot Melt	Epoxy	Crimplok	Epoxy
Fiber size (µm)	125	125	125	126	126 127	126	126
Fiber attenuation (dB) Field mount @ 1300 nm	<0.2 typical (62.5/125 µm fiber)	<0.2 typical (62.5/125 µm fiber)	<0.2 typical (62.5/125 µm fiber)	<0.2 typical	<0.3 typical	<0.2 typical	<0.3 typical
Reflection (dB) Field mount	≤-25 typical	≤-27 typical	≤-25 typical	≤-25 typical	≤-45 typical	≤-40 typical	≤-65 typical
Connection durability (dB), after 500 matings	<0.2 change	<0.22 change	<0.2 change	<0.2 change	<0.2 change	<0.22 change	<0.2 change
Operating temperature Connector only (cable dependent)	-40° to 60°C (-40° to 140°F)	-10° to 60°C (14° to 140°F)	-40° to 85°C (-40° to 185°F)	-40° to 60°C (-40° to 140°F)	-40° to 85°C (-40° to 185°F)	-10° to 60°C (14° to 140°F)	-40° to 85°C (-40° to 185°F)
Storage temperature	-40° to 85°C (-40° to 185°F)	-40° to 80°C (-40° to 176°F)	-40° to 85°C (-40° to 185°F)	-40° to 85°C (-40° to 185°F)	-40° to 85°C (-40° to 185°F)	-40° to 80°C (-40° to 176°F)	-40° to 85°C (-40° to 185°F)
Cable tension (in service) Straight pull	<0.5 dB increase at 7.5 lbs.	<0.5 dB increase at 20 lbs.	<0.5 dB increase at 7.5 lbs.	<0.5 dB increase at 7.5 lbs.	<0.5 dB increase at 7.5 lbs.	<0.5 dB increase at 20 lbs.	<0.5 dB increase at 7.5 lbs.
Side pull	<0.5 dB increase at 3 lbs.	<0.5 dB increase at 3 lbs.					
Material Connector ferrule Connector body & housing Boot	Zirconia ceramic Engineering Thermoplastic Elastomer resin	8° angle Zirconia ceramic Elastomer resin					
Flame retardancy	UL-94 V-0	UL-94 V-0					
Connector identification Body Outer shell Boot	Black Beige White	Black Beige Black	Beige Beige Beige	Black Blue White	Beige Blue White	Black Blue Black	Beige Green Green
Field Termination Kit 120 V 230 V	6355 6351	6955 (no power needed)	8365 8361	6355 6351	8365 8361	6955 (no power needed)	8366 Conversion Kit

### Use 3M Universal Termination Kits for an organized, quick installation

The 8365/8361 kit includes all tools and supplies necessary to terminate all epoxy connectors with a high temperature epoxy to meet Bellcore environmental tests.

The 8365/8361 kit also includes a polishing procedure that enables the installer to meet a -40 dB reflection requirement.

The 8366 SC APC conversion kit includes a polishing procedure that enables the installer to meet a -65 dB reflection requirement.

The 6355/6351 Hot Melt termination kit will provide all the equipment needed to terminate all 3M Hot Melt connectors.

The 6955 Crimplok™ termination kit provides all the equipment needed to terminate all 3M Crimplok connectors.

# Ordering Guide

Description	Product Number	Packaging
<b>Field-mountable connectors</b>		
Single-mode/Epoxy (126µm)	8306	1/pkg., 60/cs.
Single-mode/Epoxy (127µm)	8307	1/pkg., 60/cs.
Single-mode/Hot Melt (126µm)	8300	1/pkg., 60/cs.
Single-mode APC Epoxy (126µm)	8306-APC	1/pkg., 60/cs.
Single-mode Low EMI (blue boot)	8309-U	1/pkg., 60/cs.
Single-mode Low EMI (white boot)	8309-W	1/pkg., 60/cs.
Single-mode Crimplok™ (126µm)	8900	1/pkg., 60/cs.
Multimode/Epoxy (125µm)	6306	1/pkg., 60/cs.
Multimode/Hot Melt (125µm)	6300	1/pkg., 60/cs.
Multimode Low EMI (beige boot)	6309-BE	1/pkg., 60/cs.
Multimode Low EMI (white boot)	6309-W	1/pkg., 60/cs.
Multimode Crimplok™ (125µm)	6900	1/pkg., 60/cs.
<b>Cable assembly*</b>		
Single-mode, connector code	DA	1/pkg., 1/cs.
Single-mode, 8° angle	EP	1/pkg., 1/cs.
Single-mode Low EMI	DT	1/pkg., 1/cs.
Multimode, connector code	DB	1/pkg., 1/cs.
Multimode Low EMI	DS	1/pkg., 1/cs.
<b>Couplings</b>		
Single-mode simplex	8310	1/pkg., 60/cs.
Single-mode duplex	8313	1/pkg., 60/cs.
Single-mode APC	8310-G	1/pkg., 60/cs.
Multimode simplex	6310	
Multimode duplex	6313	
<b>Complete universal termination kits</b>		
Single-mode and Multimode ST, SC & FC Termination Kit, 120V Oven, Epoxy	8365	1/each, 1/cs.
Single-mode and Multimode ST, SC & FC Termination Kit, 230V Oven, Epoxy	8361	1/each, 1/cs.
SC Angled Polished Connector Conversion Kit	8366	1/each, 1/cs.
Hot Melt Fiber Optic Termination Kit, ST, SC & FC 120V Oven	6355	1/each, 1/cs.
Hot Melt Fiber Optic Termination Kit, ST, SC & FC, 230V Oven	6351	1/each, 1/cs.
Crimplok Fiber Optic Termination Kit ST & SC Single-mode & Multimode	6955	1/each, 1/cs.

\* Please refer to cable assembly ordering guide, or price book for complete part numbers

## Ordering Information

To order, specify the correct product number from the Ordering Guide chart. For more information, please contact a 3M sales representative 800/426/8688.

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