MIL-C-83522 ST & ST ADAPTERS

DNX, DNY versions shown

Overview

Optical Cable Corporation presents its family of QPL Military ST Connector and ST Adapter products. The OCC family of qualified M83522 products represents the most comprehensive line of Military Grade products available to the industry and features non-optical disconnect, nickel-plated brass, or stainless steel configurations, available in both ST and ST Adapter configurations. The OCC M83522 qualified family of products features a highly durable, individually mounted connector system that withstands extreme temperature change, shock, vibration and corrosion, which are typical of the extreme environments or uncontrolled operating conditions the system is designed to operate within. Ideally suited for the harsh, unprotected environments of aircraft, spacecraft, shipboard and land-based applications, this connector meets or exceeds 100% of the requirements of military specification MIL-C-83522.

The OCC Military ST Connector is available in either a locking (ANX, ANY) or non-locking model (DNX, DNY) orientation and uses a convenient screw boot feature that eliminates the need for a cumbersome boot tool. The locking model features locking washers that prevent accidental optical disconnects, making the connector less sensitive to cable pull force or constant mechanical shock or vibration. The non-locking model features a higher force spring that reduces sensitivity to mechanical shock. In both models, a keyed bayonet latch provides easy engagement and disengagement. The zirconia ferrule is engineered to meet the requirements of MIL-C-83522/16, which ensures backward compatibility with legacy transceivers and ensures loss repeatability. A military part number identifies each connector.

MIL-C-83522 ST & ST ADAPTERS

Features and Benefits

ANX, ANY version shown

Adapter

FEATURES	BENEFITS
Qualified to MIL-C-83522	Ensures highest performance for single terminus (ST) connector
Nickel-Plated Brass	Broad selection of options to meet environmental needs
Stainless Steel	Broad selection of options to meet environmental needs
Screw-On Boot	**NO MORE BOOT TOOL!** Easy installation
Pin Body Locking Option	Prevents optical disconnect during high shock, vibration environments
Pre-Radius Ferrule	Compatible with Legacy Systems
Enhanced Kevlar™ Retention	Over 50 lb-ft. of pull strength without damage
Broad selection of cables accommodated	Accommodates 2.00mm, 2.5mm and 3.00mm loose tube fiber cable. For 2.5mm and 3.00mm fiber cables, order Crimp Sleeve part number PC83522/16-20-S

ST Dust Cover

Adapter Dust Cover

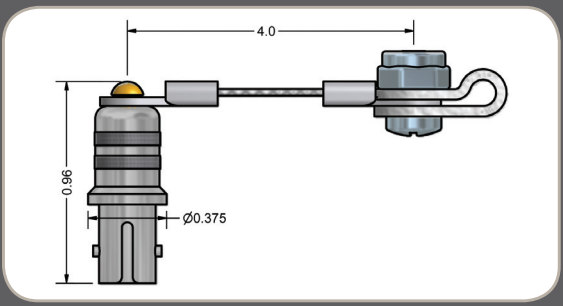
MIL-C-83522 ST & ST ADAPTERS

Specifications

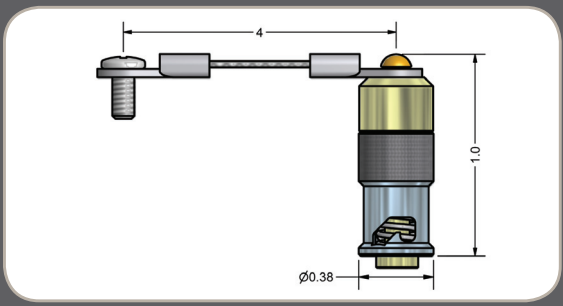
SPECIFICATION	PARAMETER	RANGE	DNX	DNY	ANX	ANY	COTS	NY
Insertion Loss	Multimode (50, 62.5/125µm)	0.35 dB Typ., 0.75 dB Max.	X		X		X	X
Insertion Loss	Single-Mode (9/125µm)	0.40 dB Typ., 0.75 dB Max.		X		X	X	X
Return Loss	Single-Mode (9/125µm)	-50 dB Typ., -40 dB Max.		X		X	X	X
Weight	Non-Terminated	< 20 GR.	X	X	X	X	X	X
Temperature	Operational	-46° C to 85° C	X	X	X	X	X	X
Temperature	Storage	-62° C to 85° C	X	X	X	X	X	X
Tensile Loading[1]	MIL-STD-1344A	Method 2009 at 180N	X	X			X	X
Tensile Loading[2]	MIL-STD-1344A	Method 2009 at 230N	X	X	X			
Flex Life	MIL-STD-1344A, M2017	Method 2017, 1000 Cycles Each	X	X	X	X	X	X
Twist	EIA-455-36	1000 Cycles, ±90° Twist	X	X	X	X	X	X
Mating Durability	EIA-455-21	500 Cycles	X	X	X	X	X	X
Impact	TIA/EIA-455-2, Method B	8 Drops	X	X	X	X	X	X
Vibration	TIA/EIA-455-11C, Cond. C	Condition II & VII, 10 GS, 1.5 Hr./Axis	X	X	X	X		X
Vibration[3]	TIA/EIA-455-11C, Cond. VI	Condition F, 1.5 Min/Axis	X	X	X	X		X
Mechanical Shock[4]	MIL-S-901, Grade A, Type A	Class 1, 3 Blows, Each Axis	X	X	X	X		X
Thermal Shock	DOD-STD-1678	Method 4020, -62° C to 85° C	X	X	X	X	X	X
Temperature Humidity Cycling	DOD-STD-1678	Method 4030, 65° C at 95% RH	X	X	X	X	X	X
Temperature Cycling	EIA/TIA-455-3	4 Cycles at 14 Hours/Cycle	X	X	X	X	X	X
Life Aging	MIL-STD-202	Method 108, 240 Hours	X	X	X	X	X	X
Pressure Altitude	MIL-STD-810	Method 500, 2000 Ft/Min.	X	X	X	X	X	X
Sand and Dust	MIL-STD-202	Method 110	X	X	X	X	X	X
Salt Spray	MIL-STD-1344A	Method 1001, Cond. A	X	X	X	X	X	X
Flammability	MIL-STD-1344A	Method 1012, Cond. C	X	X	X	X	X	X
Fungus Resistance	MIL-STD-810	Method 508, 28 Days						

NOTES

1 Discontinuity allowed during tensile loading.
2 Discontinuity not allowed during tensile loading.
3 Typical for launch conditions on-board ship.
4 Less than 50% reduction in transmittance for <50 µsec.



SVSTP21A0 & SVSTP22A0



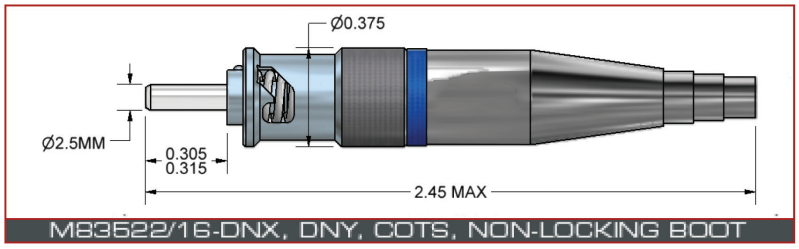
SVSTQ21A0 & SVSTQ22A0

MIL-C-83522 ST & ST ADAPTERS

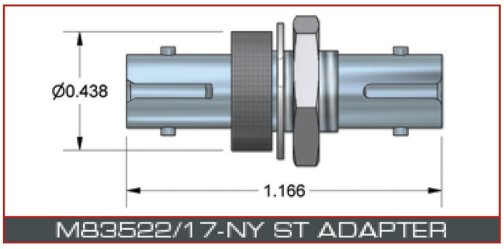
Ordering Information

NICKEL-PLATED BRASS PRODUCTS	
PART NUMBER	DESCRIPTION
M83522/16-DNX-B	MIL-ST, Screw-On Boot, Non-Locking, Multimode, N.P.B.
M83522/16-DNY-B	MIL-ST, Screw-On Boot, Non-Locking, Single-mode, N.P.B.
M83522/16-ANX-B	MIL-ST, Screw-On Boot, Locking, Multimode, N.P.B.
M83522/16-ANY-B	MIL-ST, Screw-On Boot, Locking, Single-mode, N.P.B.
SVST6011AL	COTS-ST, Screw-On Boot, Non-Locking, Multimode, N.P.B.
SVST6021AL	COTS-ST, Screw-On Boot, Non-Locking, Single-mode, N.P.B.
SVST5011AL	COTS-ST, Screw-On Boot, Lock Boot, N.P.B., Multimode
SVST5021AL	COTS-ST, Screw-On Boot, Lock Boot, N.P.B., Single-mode
M83522/17-NY-B	MIL-ST Adapter, Multi- or Single-mode, N.P.B.
SVSTB21A0	N.P.B. COTS-ST Adapter, Ceramic Split Sleeve
SVSTP21A0	N.P.B Metal ST Dust Cover with Lanyard
SVSTQ21A0	N.P.B Metal ST Adapter Dust Cover with Lanyard

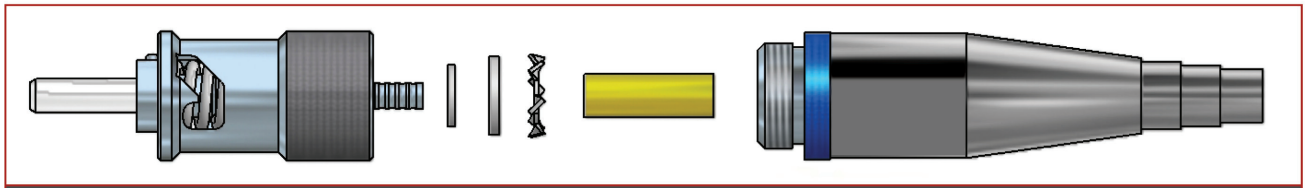
STAINLESS STEEL PRODUCTS	
PART NUMBER	DESCRIPTION
M83522/16-DNX-S	MIL-ST, Screw-On Boot, Non-Locking, Multimode, S.S.
M83522/16-DNY-S	MIL-ST, Screw-On Boot, Non-Locking, Single-mode, S.S.
SVST6012AL	COTS-ST, Screw-On Boot, Multimode, S.S.
SVST6022AL	COTS-ST, Screw-On Boot, Single-mode, S.S.
SVST5012AL	COTS-ST, Screw-On Boot, Lock Boot, S.S., Multimode
SVST5022AL	COTS-ST, Screw-On Boot, Lock Boot, S.S., Single-mode
M83522/17-NY-S	MIL-ST Adapter, Multi- or Single-mode, S.S.
SVSTB22A0	S.S. COTS-ST Adapter, Ceramic Split Sleeve
SVSTP22A0	S.S. Metal ST Dust Cover with Lanyard
SVSTQ22A0	S.S. Metal ST Adapter Dust Cover with Lanyard



M83522/16-DNX, DNY, COTS, NON-LOCKING BOOT



M83522/17-NY ST ADAPTER


M83522/16-ANX, ANY, COTS, LOCKING BOOT

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