

SMP



SMP

CRISTEK
INTERCONNECTS, INC.

SMP High Frequency Push-on

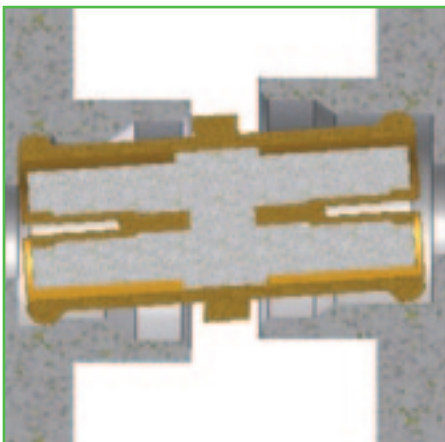
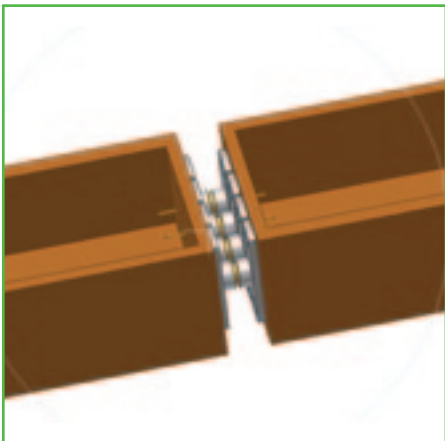
The SMP connector is a multi-functional, miniature, high frequency, push-on connector that can be adaptable for use in wide variety of high reliability applications. This connector is suitable for applications ranging from hermetic modules to backplanes. The multitude of configurations and styles provide specifically tailored solutions for a wide range of cabled and module to module assemblies. A unique feature of this connector is the ability to install cable assemblies with minimal movement. The floating connector feature provide a maximum allowance for misalignment. Unlike other push-on type connectors, the frequency range of the connector is not self limited by its push-on, blind mate features. These robust connectors are designed to mate tightly and maintain performance through 40 GHz.

Module to Module (board to board)

One of the benefits of the SMP connector is its ability to join two RF/ Microwave Modules or PC Boards to each other without the use of cables and the attendant insertion loss penalty. In the past, this was difficult and costly due to the necessary tolerances to ensure good alignment between modules or boards. The key component used in these applications is an inseries, female to female, SMP adapter called a "Bullet". The bullet is a unique connector, when placed between two SMP male connectors or shrouds, is used to join two microwave modules or boards. This method produces a tight compact arrangement with good performance characteristics from DC to 40 GHz.

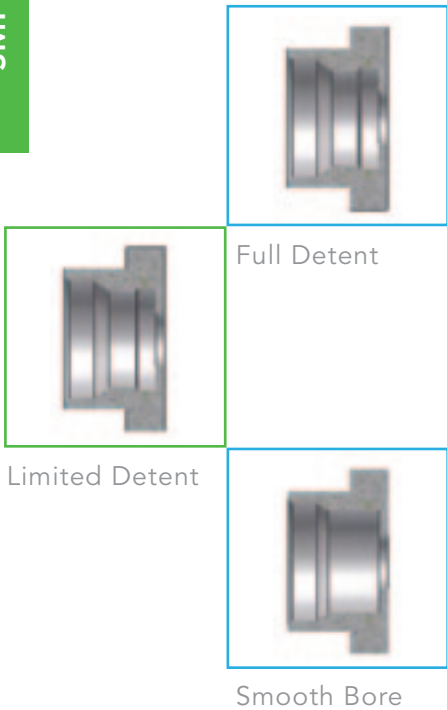
Misalignment

The SMP's ability to tolerate axial and radial misalignment while maintaining microwave performance is one of the driving forces behind its widespread industry success. The SMP allows for axial and radial misalignment without the use of bulky springs or other alignment tools. This is why it is possible to use these connectors in module to module (board to board) applications. Although the bullet fits tightly into the shroud, by design it has the ability to move slightly while maintaining its performance. This slight radial and axial movement gives the SMP bullet its "Float". When installed properly, the SMP bullet/shroud combination can withstand .010"(.25mm) axial and \pm .010"(.25mm) radial float.



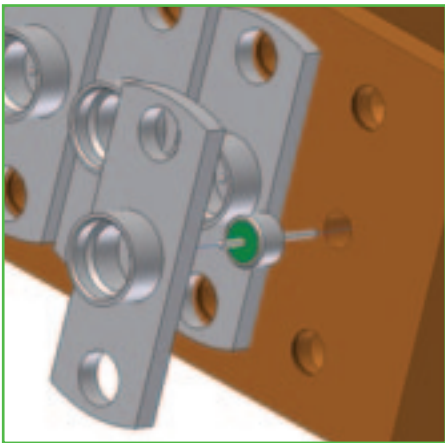
Detents

The SMP male connector is available in three standard detents specified in MIL-STD-348 to provide the proper amount of mating and retention force for its selected applications. These are defined as the “full”, “limited”, and “smooth bore”. The full detent provides the highest insertion and withdrawal forces and the smooth bore, the least. The user selects the detent most suitable for his or her application. The smooth bore is used on many blindmate applications where increased axial and radial float is needed. To ensure the bullet will stay on one of the modules, the limited or full detent SMP male shroud is used on one module and a smooth bore shroud is used on the other. When the modules are taken apart the bullet will then remain captivated within limited or full detent shroud. The limited detent shroud is often used when some captivation of the bullet is needed but there is risk that the higher forces may damaged the component. One example is the potential risk of cracking a printed circuit board and damaging the solder joints on the mating, PCB mounted connector. Full detents are used when retention forces need to be high, such as in a cable application



Hermetic Seals

In some case it is necessary to have a hermetic module, thus creating high expense and extreme difficulties for most connectors. In the case of the SMP, it is an easy process to create a hermetic module. All that is needed is an .015” glass feed through and shroud. The glass feed through is fired or soldered in the housing just as any other feed through, then the shroud is placed around the feed through, creating the SMP male connector. A wide variety of shrouds are available to suit many customer preferences. Performance is improved over other hermetic seals since the center pin of the feed through is the male contact and no additional contacts or insulators are needed.



Cable Connectors

The SMP also can be used for cable assemblies. These assemblies have the advantage of being quick disconnects while still maintaining performance at frequency ranges higher than other push on type connectors. The full detent is used when mating an SMP cable assembly so that it will maintain the maximum retention. Since a cable assembly does not need to have axial or radial float, several small changes are made to SMP female interface as defined by MIL-STD-348. This includes adding an anti-rock ring and EMI ring to improve performance of the connector and reduce RF leakage. The SMP connectors are available for use on both semi-rigid and flexible cable types.

Electrical

Impedance	50 Ohms
Operating Frequency	DC to 40 GHz
Center Contact Resistance	6.0 milliohms
Dielectric Withstanding Voltage (60 Hz)	
Sea level	500 Volts RMS Min.
70,000 ft	125 Volts RMS Min.
Corona Extinction Voltage (70,000ft)	190 Volts RMS Min.
RF High Potential Voltage (5MHz)	325 Volts RMS Min.
Insulation Resistance	5000 Megohms
Voltage Rating	
Sea level	335 Volts RMS Max.
70,000 ft	65 Volts RMS Max.
RF leakage	-80 dB to 3 GHz
	-65 dB to 26.5 GHz

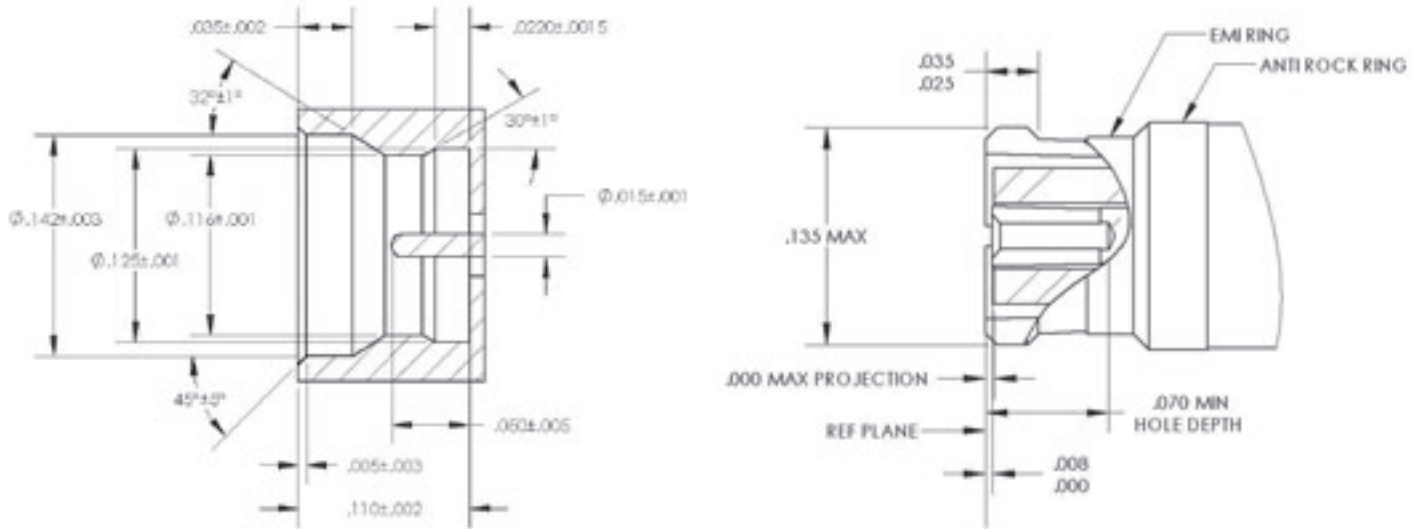
Mechanical

Axial Misalignment	.010" (.25mm) Max.
Radial Misalignment	±.010" (.25mm)
Durability	
Full Detent	100 Cycle
Limited Detent	500 Cycles
Smooth Bore	1000 Cycles
Force to Engage	
Full Detent	15 lbs (66.7N) Max.
Limited Detent	10 lbs (44.5 N) Max.
Smooth Bore	2 lbs (8.9N) Max.
Force to Disengage	
Full Detent	5 lbs (22.2N) Min.
Limited Detent	2 lbs (8.9N) Min.
Smooth Bore	0.5 (2.2N) Min.
Permeability	<2.0Mu

Environmental

Operating Temperature	-65°C to +165°C
Storage Temperature	-65°C to +200°C
Corrosion	MIL-STD-202, Method 101 Test Condition B, 5% Salt Solution
Vibration	MIL-STD-202, Method 204 Test Condition B, 15 min/axis
Random Vibration	MIL-STD-202, Method 214 Test Condition F, 15 min/axis
Mechanical Shock	MIL-STD-202, Method 213 Test Condition I, 100g's Sawtooth Axis
Thermal Shock	MIL-STD-202, Method 107 Test Condition B, +165°C High Temp.

* Individual connector may vary consult factory for specific specification



Materials

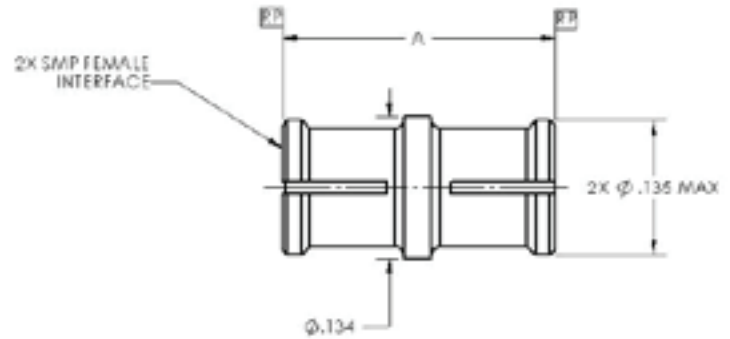
Beryllium Copper (BeCu)	Per ASTM B 196
Stainless Steel 303	Per ASTM A 484, ASTM A 582, ASTM A 555 or ASTM A 581
PTFE	Per ASTM D 1710
Brass	Per ASTM B 36, ASTM B 121, ASTM B 16 or ASTM B 16M
Kovar	Per ASTM F 15
Glass	Corning 7070

Standard Finish

Gold	Per MIL-DTL-45204, Type III, Grade C, Class 1
Nickel	Per SAE ASM 2404 or MIL-DLT-38999 Class 1
Passivate	Per ASTM A967 or SAE AMS 2700

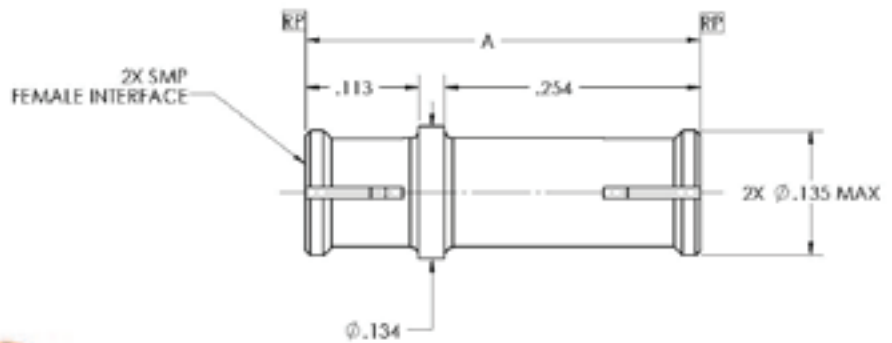
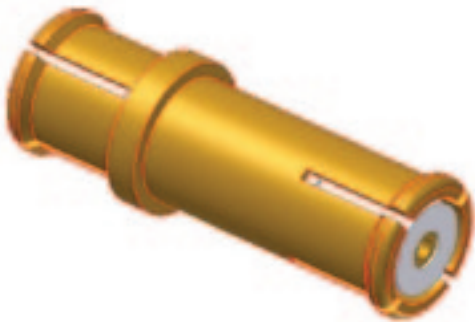
SMP INTERCONNECT (BULLET)

Cristek Part Number	Dim A
MBI-S254-SI	.254



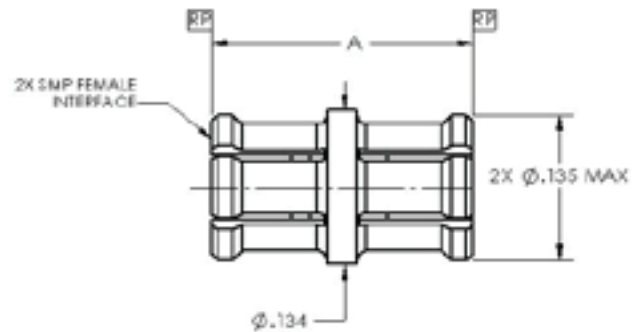
SMP INTERCONNECT (BULLET)

Cristek Part Number	Dim A
MBI-S395-SI	.395



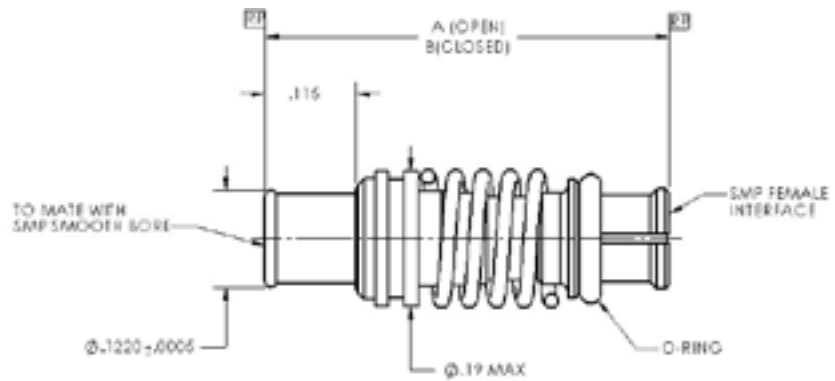
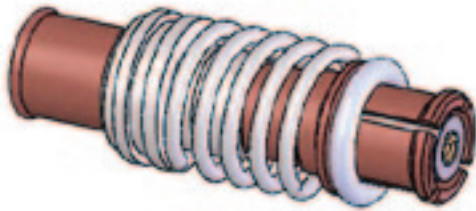
SMP INTERCONNECT (BULLET)

Cristek Part Number	Dim A
MD-SFSF-S-001	.224



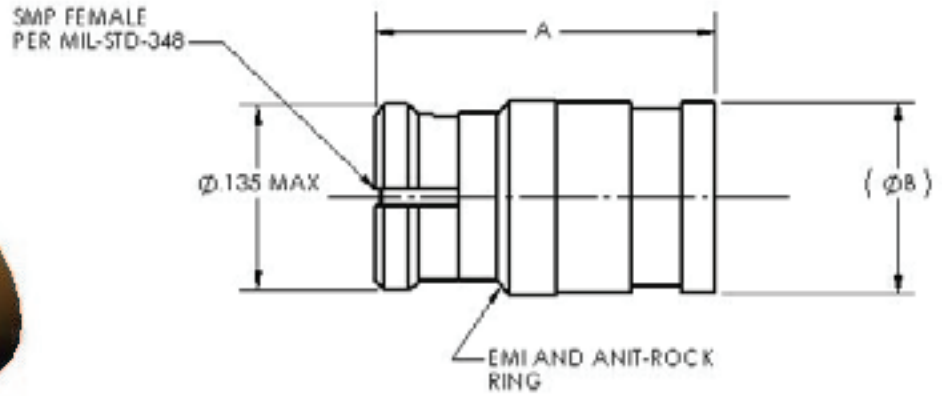
SMP INTERCONNECT (SPRING LOADED BULLET)

Cristek Part Number	Dim A OPEN	Dim B CLOSED
MD-SFSF-L-001	.500	.450
MD-SFSF-L-002	.650	.600
MD-SFSF-L-003	.750	.700
MD-SFSF-L-004	1.000	.950
MD-SFSF-L-005	1.250	1.200



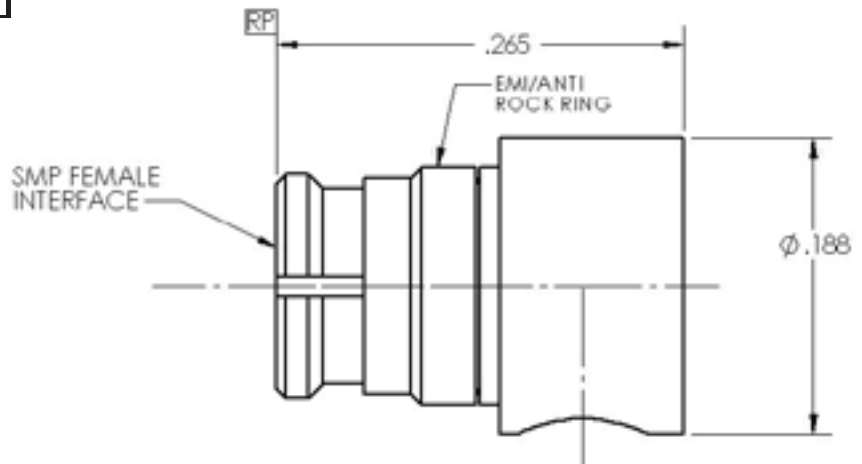
SMP FEMALE, STRAIGHT, SEMI-RIGID CABLE

Cable Type	Cristek Part Number	Dim A	DIM B
SR .086	MA1-SFCS-001	.250	.134
SR .047	MA1-SFCS-002	.250	.085



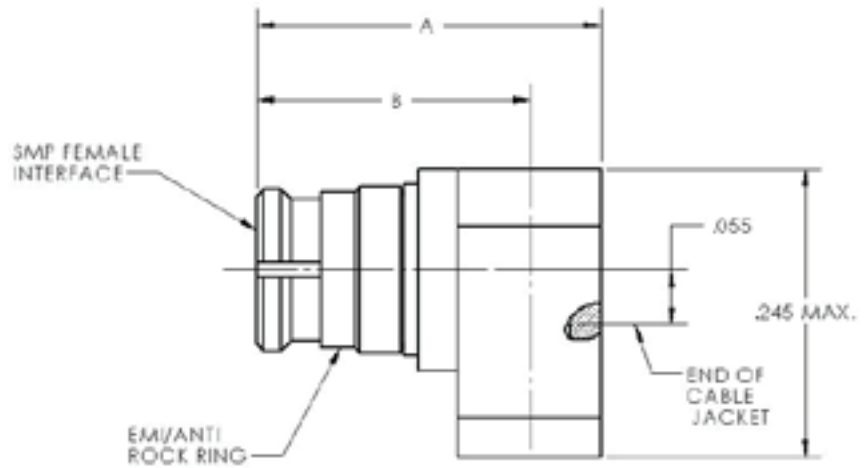
SMP FEMALE, RIGHT ANGLE, SEMI-RIGID CABLE

Cable Type	Cristek Part Number
SR .086	MA1-SFCR-01-001
SR .047	MA1-SFCR-02-001



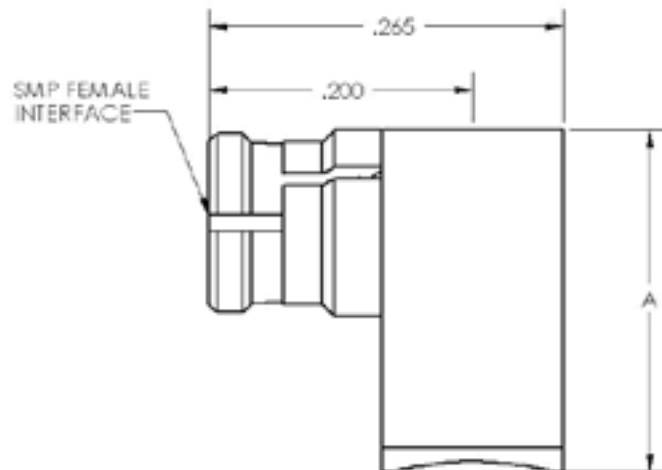
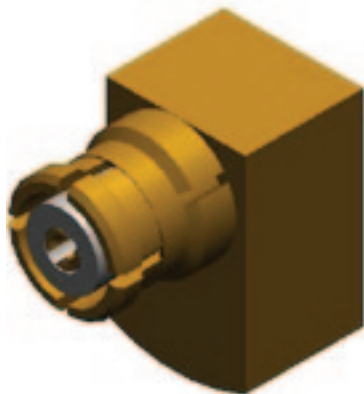
SMP FEMALE, RIGHT ANGLE, SEMI-RIGID CABLE

Cable Type	Cristek Part Number	Dim A	Dim B
SR .086	MA1-SFCR-003	.265	.210
SR .047	MA1-SFCR-004	.230	.192



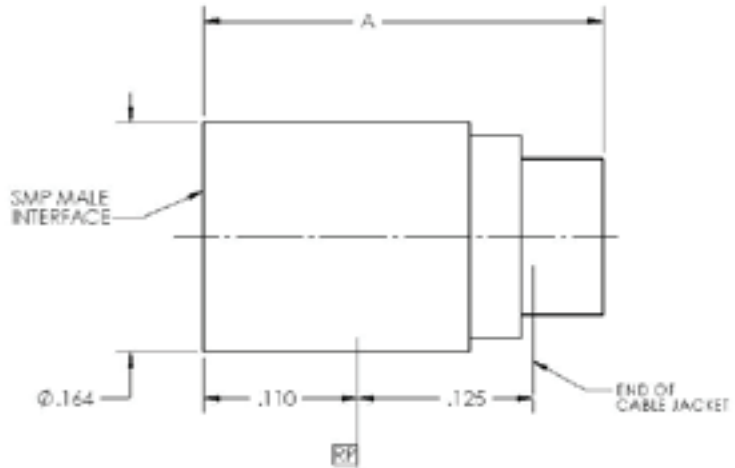
SMP FEMALE, RIGHT ANGLE, SEMI-RIGID CABLE, 26 GHz

Cable Type	Cristek Part Number	Dim A
SR .086	MA-SFCN-01-001	.250
SR .047	MA-SFCN-02-001	.285



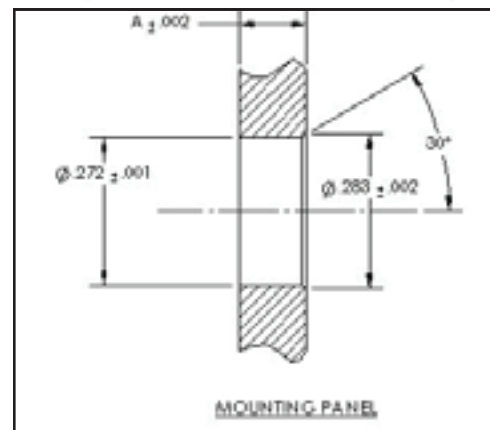
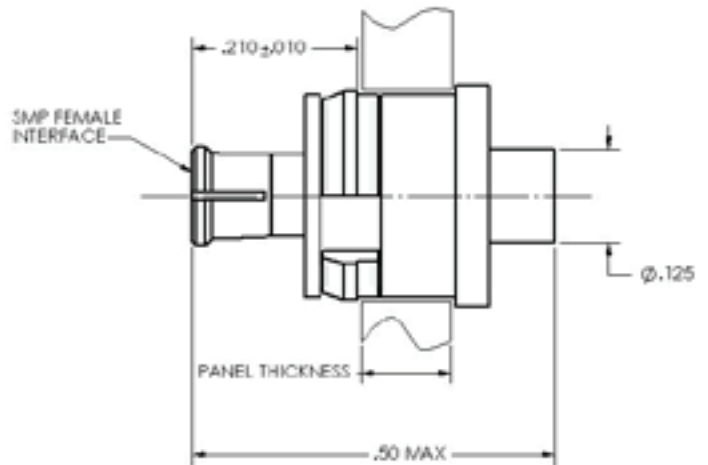
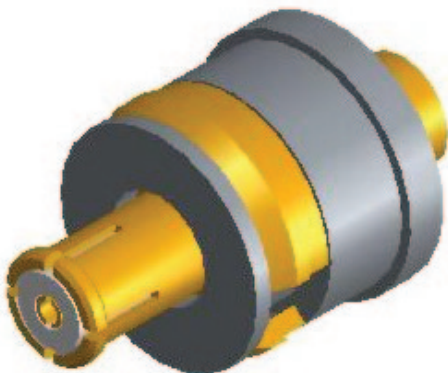
SMP STRAIGHT SHROUD, SEMI-RIGID CABLE

Cable Type	Cristek Part Number	Dim A
SR .086	MA1-SMCS-001	.300
SR .047	MA1-SMCS-002	.285



SMP FEMALE, SNAP IN FLOAT MOUNT, SEMI RIGID CABLE

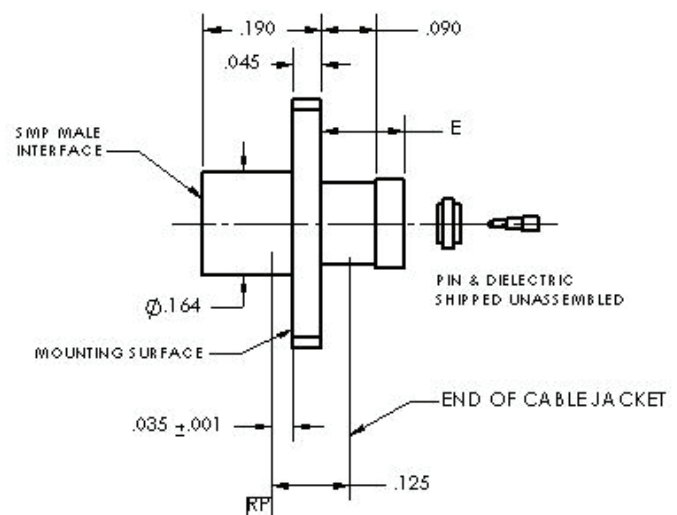
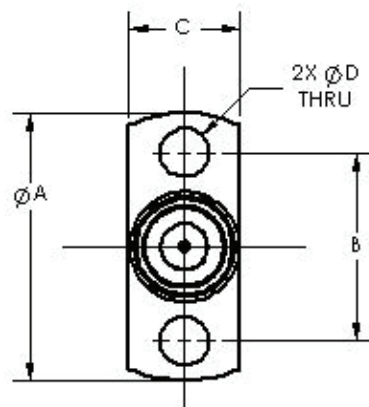
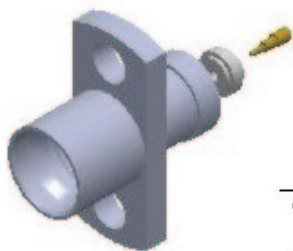
Cable Type	Cristek Part Number	Dim A
SR .086	MA-SFCM-01-001	.093
SR .047	MA-SFCM-02-001	.093
SR .086	MA-SFCM-01-002	.125
SR .047	MA-SFCM-02-002	.125



SMP FLANGE MOUNT SHROUDS, SEMI-RIGID CABLE, NON HERMETIC

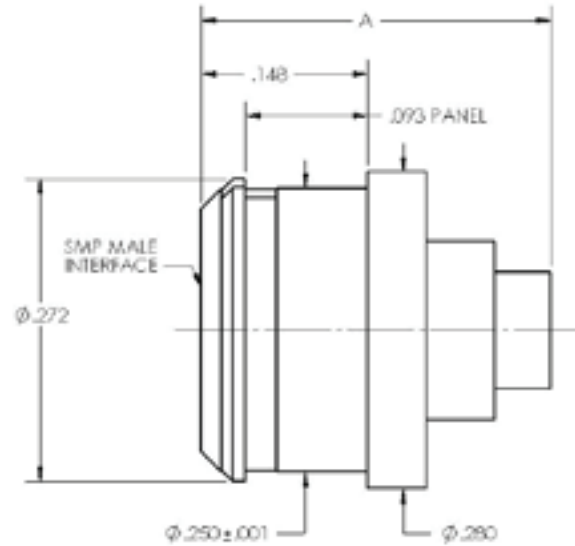
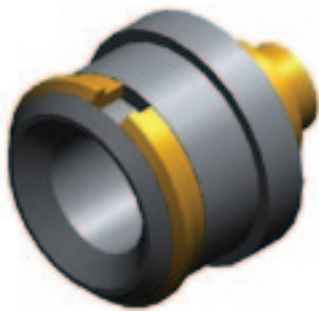
SMP

Cable Type	Cristek Part Number	Detent	Dim A	Dim B	Dim C	Dim D	Dim E
SR .086	MA-SMCF-01-001-FD	FD	Ø.400	.282	.165	Ø.073	.135
SR .086	MA-SMCF-01-001-LD	LD	Ø.400	.282	.165	Ø.073	.135
SR .086	MA-SMCF-01-001-SB	SB	Ø.400	.282	.165	Ø.073	.135
SR .047	MA-SMCF-02-001-FD	FD	Ø.400	.282	.165	Ø.073	.095
SR .047	MA-SMCF-02-001-LD	LD	Ø.400	.282	.165	Ø.073	.095
SR .047	MA-SMCF-02-001-SB	SB	Ø.400	.282	.165	Ø.073	.095
SR .086	MA-SMCF-01-002-FD	FD	Ø.480	.328	.186	Ø.098	.135
SR .086	MA-SMCF-01-002-LD	LD	Ø.480	.328	.186	Ø.098	.135
SR .086	MA-SMCF-01-002-SB	SB	Ø.480	.328	.186	Ø.098	.135
SR .047	MA-SMCF-02-002-FD	FD	Ø.480	.328	.186	Ø.098	.095
SR .047	MA-SMCF-02-002-LD	LD	Ø.480	.328	.186	Ø.098	.095
SR .047	MA-SMCF-02-002-SB	SB	Ø.480	.328	.186	Ø.098	.095
SR .086	MA-SMCF-01-003-FD	FD	Ø.625	.481	.223	Ø.102	.135
SR .086	MA-SMCF-01-003-LD	LD	Ø.625	.481	.223	Ø.102	.135
SR .086	MA-SMCF-01-003-SB	SB	Ø.625	.481	.223	Ø.102	.135
SR .047	MA-SMCF-02-003-FD	FD	Ø.625	.481	.223	Ø.102	.095
SR .047	MA-SMCF-02-003-LD	LD	Ø.625	.481	.223	Ø.102	.095
SR .047	MA-SMCF-02-003-SB	SB	Ø.625	.481	.223	Ø.102	.095



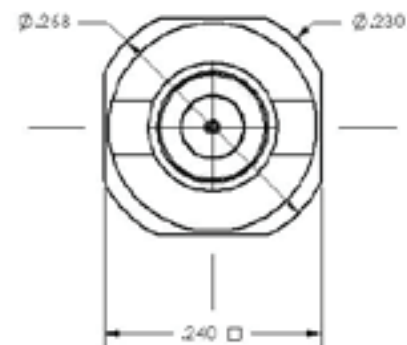
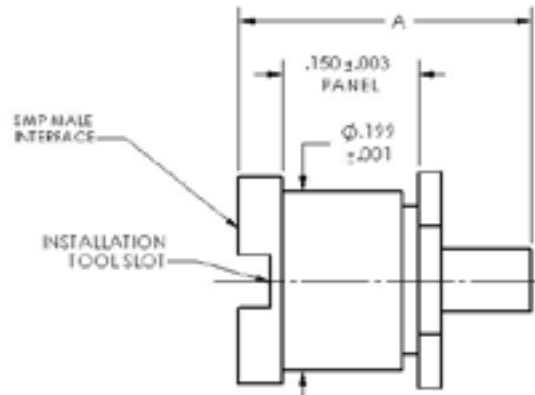
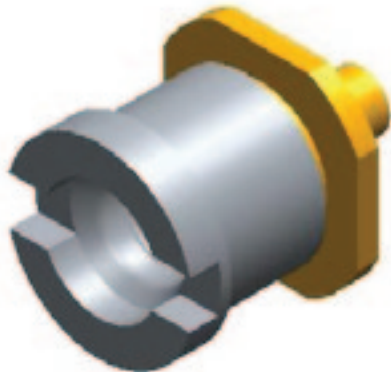
SMP SNAP IN SHROUD, PANEL MOUNT, SEMI-RIGID CABLE

Cable Type	Cristek Part Number	Detent	Dim A
SR .086	MA-SMCJ 01-001-FD	FD	.350
SR .047	MA-SMCJ-02-001-FD	FD	.310
SR .086	MA-SMCJ 01-001-LD	LD	.350
SR .047	MA-SMCJ-02-001-LD	LD	.310
SR .086	MA-SMCJ 01-001-SB	SB	.350
SR .047	MA-SMCJ-02-001-SB	SB	.310



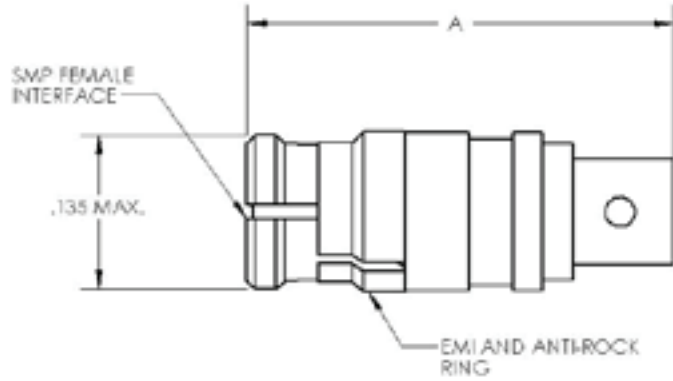
SMP THREADED SHROUD, BULKHEAD MOUNT, SEMI-RIGID CABLE

Cable Type	Cristek Part Number	Detent	Dim A
SR .086	MA-SMCK-01-001-FD	FD	.323
SR .047	MA-SMCK-02-001-FD	FD	.283
SR .086	MA-SMCK-01-001-LD	LD	.323
SR .047	MA-SMCK-02-001-LD	LD	.283
SR .086	MA-SMCK-01-001-SB	SB	.323
SR .047	MA-SMCK-02-001-SB	SB	.283
SR .086	MA-SMCK-01-001-CM	CM	.323
SR .047	MA-SMCK-02-001-CM	CM	.283



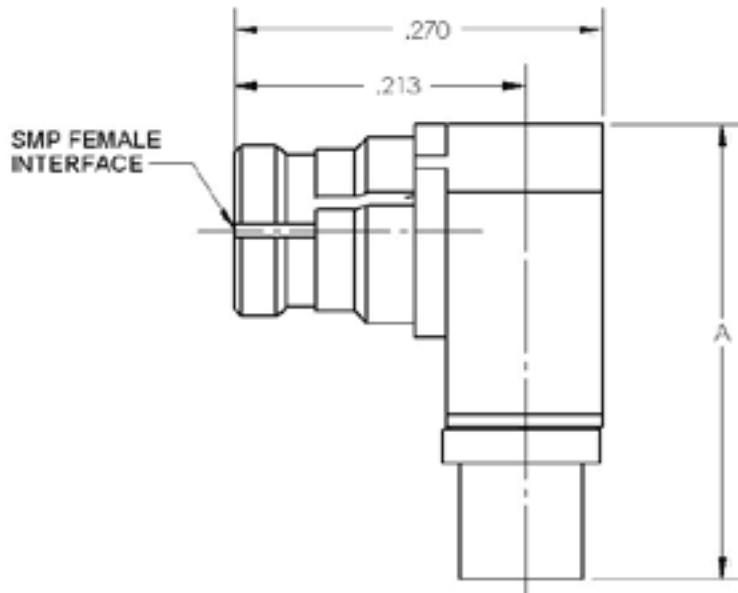
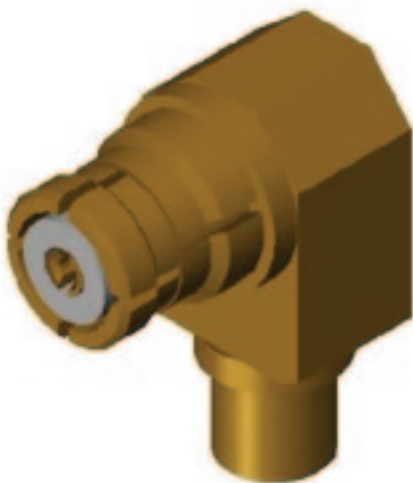
SMP FEMALE, STRAIGHT, FLEXIBLE CABLE

Cable Type	Cristek Part Number	Dim A
RG178	MA-SFCS-05-001	.300
RG316	MA-SFCS-06-001	.300



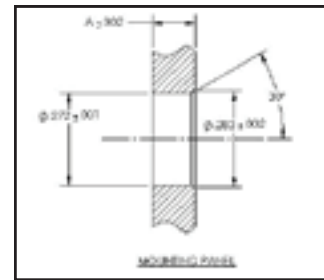
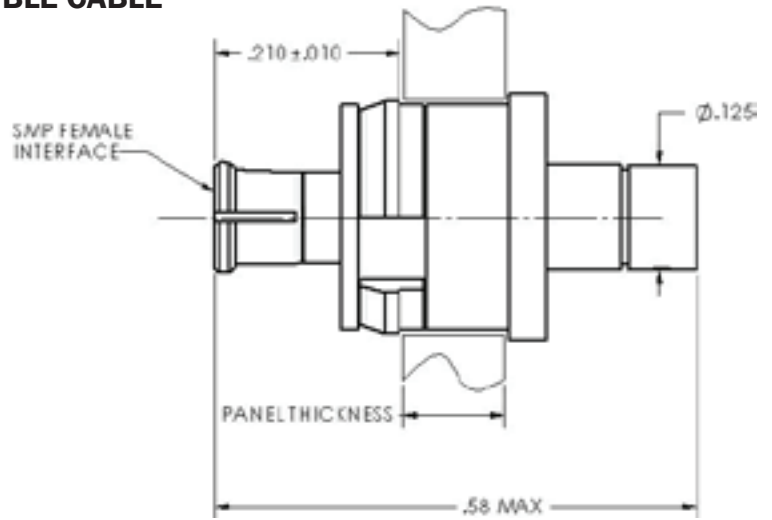
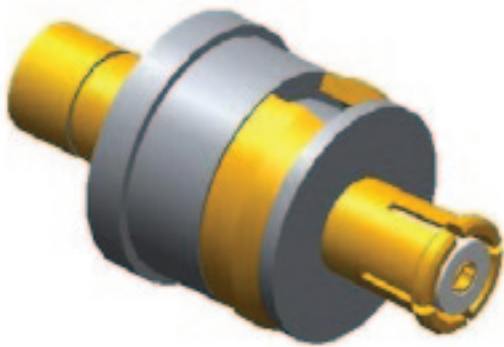
SMP FEMALE, RIGHT ANGLE, FLEXIBLE CABLE

Cable Type	Cristek Part Number	Dim A
RG178	MA-SFCR-05-001	.265
RG316	MA-SFCR-06-001	.230



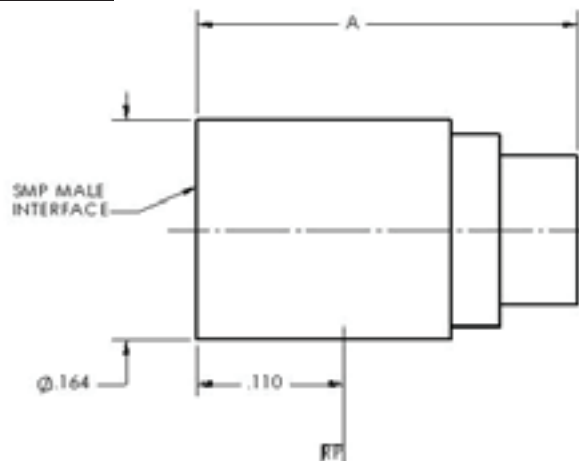
SMP FEMALE, SNAP IN FLOAT MOUNT, FLEXIBLE CABLE

Cable Type	Cristek Part Number	Dim A
RG178	MA-SFCM-05-001	.093
RG178	MA-SFCM-05-002	.125
RG316	MA-SFCM-06-001	.093
RG316	MA-SFCM-06-002	.125



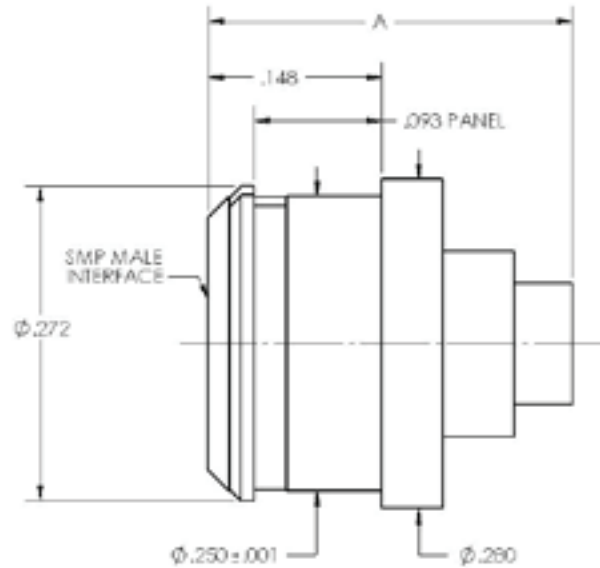
SMP STRAIGHT SHROUD, FLEXIBLE CABLE

Cable Type	Cristek Part Number	Dim A	Detent
RG178	MA-SMCS-05-001	.285	FD
RG316	MA-SMCS-06-001	.285	FD



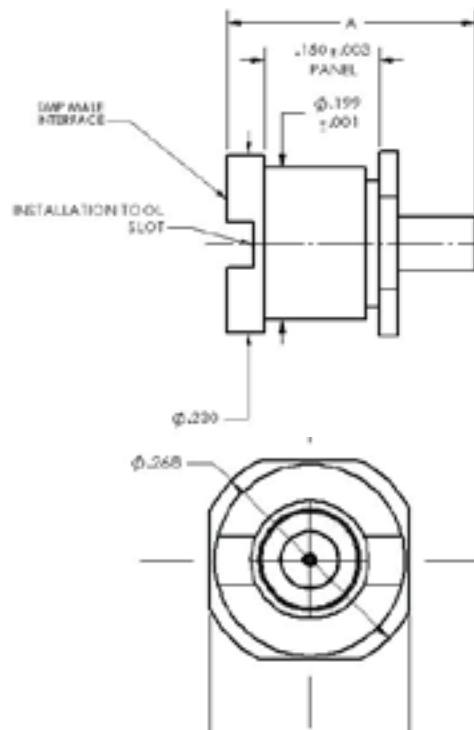
SMP SNAP IN SHROUD, PANEL MOUNT, FLEXIBLE CABLE

Cable Type	Cristek Part Number	Dim A	Detent
RG178	MA-SMCJ-05-001-FD	.380	FD
RG178	MA-SMCJ-05-001-LD	.380	LD
RG178	MA-SMCJ-05-001-CM	.380	CM
RG316	MA-SMCJ-06-002-FD	.400	FD
RG316	MA-SMCJ-06-002-LD	.400	LD
RG316	MA-SMCJ-06-002-CM	.400	CM



SMP THREADED SHROUD, BULKHEAD MOUNT, FLEXIBLE CABLE

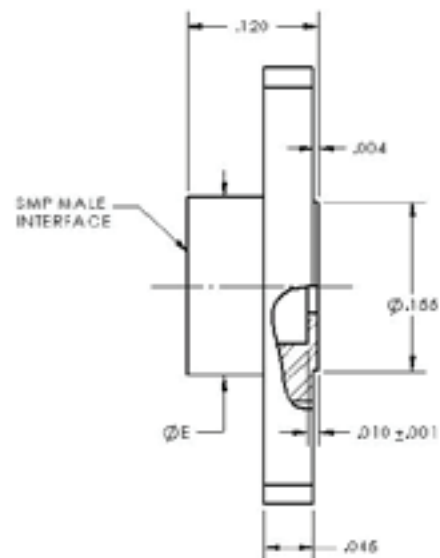
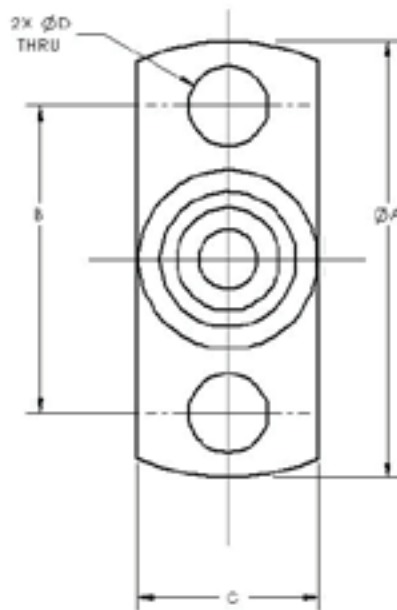
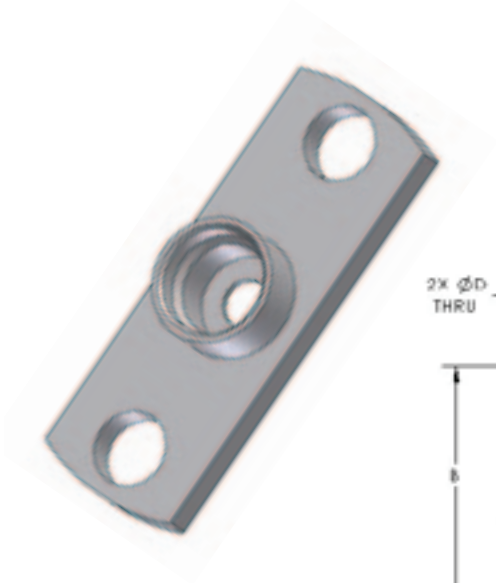
Cable Type	Cristek Part Number	Dim A	Detent
RG178	MA-SMCK-05-001-FD	.410	FD
RG178	MA-SMCK-05-001-LD	.410	LD
RG178	MA-SMCK-05-001-CM	.410	CM
RG316	MA-SMCK-06-002-FD	.450	FD
RG316	MA-SMCK-06-002-LD	.450	LD
RG316	MA-SMCK-06-002-CM	.450	CM



SMP FLANGE MOUNT SHROUD

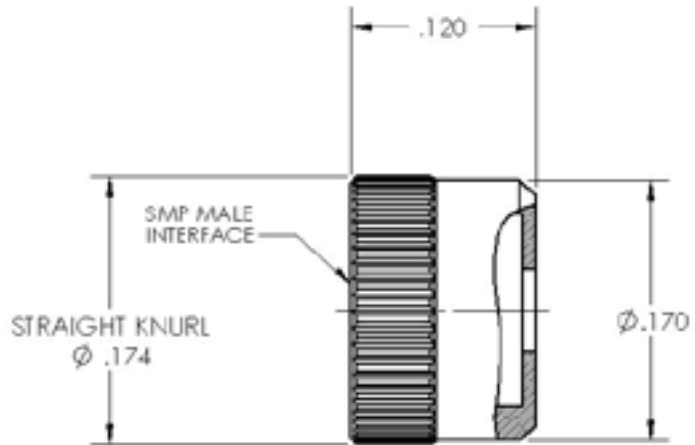
SMP

Cristek Part Number	Detent	Dim A	Dim B	Dim C	Dim D	DIM E
MA1-SMMF-001-FD	FD	Ø.400	.282	.165	Ø.073	.170 MAX
MA1-SMMF-001-LD	LD	Ø.400	.282	.165	Ø.073	.170 MAX
MA1-SMMF-001-SB	SB	Ø.400	.282	.165	Ø.073	.170 MAX
MA1-SMMF-002-FD	FD	Ø.480	.328	.186	Ø.098	.170 MAX
MA1-SMMF-002-LD	LD	Ø.480	.328	.186	Ø.098	.170 MAX
MA1-SMMF-002-SB	SB	Ø.480	.328	.186	Ø.098	.170 MAX
MA1-SMMF-003-FD	FD	Ø.625	.481	.223	Ø.102	.170 MAX
MA1-SMMF-003-LD	LD	Ø.625	.481	.223	Ø.102	.170 MAX
MA1-SMMF-003-SB	SB	Ø.625	.481	.223	Ø.102	.170 MAX
MA1-SMMF-007-CM	CM	Ø.470	.352	.235	Ø.073	.240 MAX



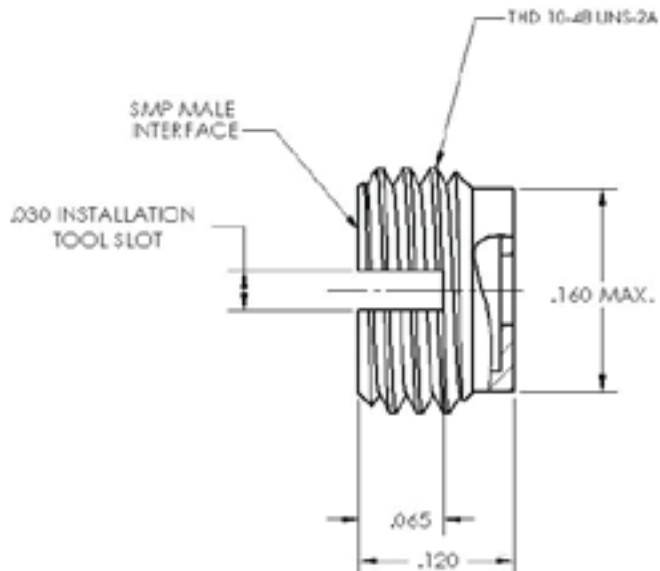
SMP PRESS IN SHROUD

Cristek Part Number	Detent
MA1-SMMP-001-FD	FD
MA1-SMMP-001-LD	LD
MA1-SMMP-001-SB	SB



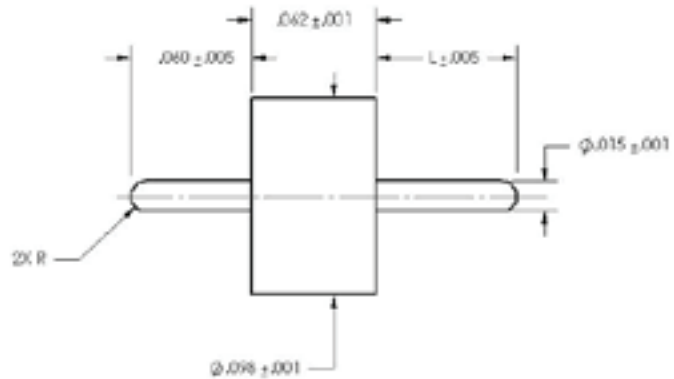
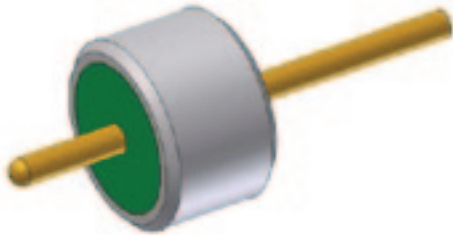
SMP THREAD IN SHROUD

Cristek Part Number	Detent
MA1-SMMT-001-FD	FD
MA1-SMMT-001-LD	LD
MA1-SMMT-001-SB	SB



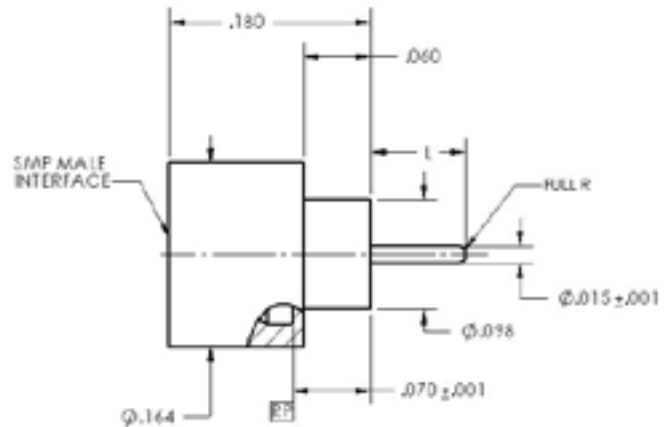
SMP HERMETIC FEED THRU, .015 DIAMETER PIN

Cristek Part Number	"L"
MA-MH-001-070	.070
MA-MH-001-090	.090
MA-MH-001-120	.120
MA-MH-001-150	.150



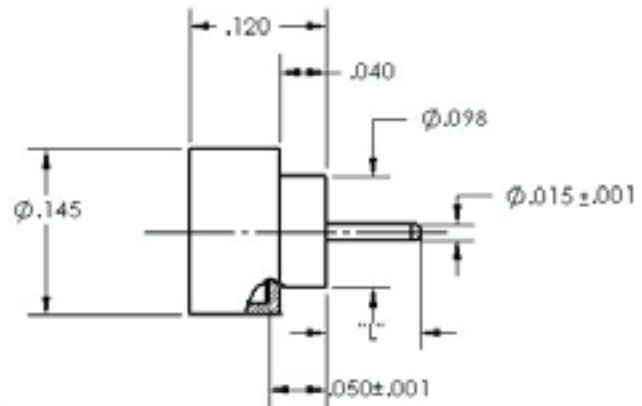
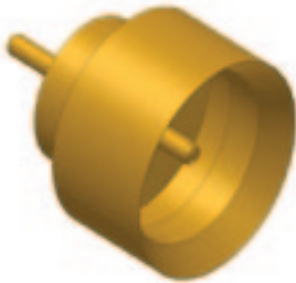
SMP HERMETIC FEED THRU SHROUDED, STANDARD PROFILE

Cristek Part Number	Detent	"L"
MA1-SMZH-001-FD-050	FD	.050
MA1-SMZH-001-LD-050	LD	.050
MA1-SMZH-001-SB-050	SB	.050
MA1-SMZH-001-FD-070	FD	.070
MA1-SMZH-001-LD-070	LD	.070
MA1-SMZH-001-SB-070	SB	.070
MA1-SMZH-001-FD-090	FD	.090
MA1-SMZH-001-LD-090	LD	.090
MA1-SMZH-001-SB-090	SB	.090



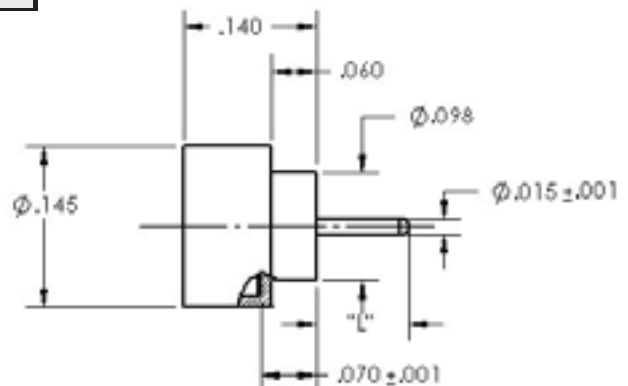
SMP HERMETIC FEED THRU, SHROUDED, LOW PROFILE .120

Cristek Part Number	Detent	"L"
MA1-SMZH-002-FD-050	FD	.050
MA1-SMZH-002-LD-050	LD	.050
MA1-SMZH-002-SB-050	SB	.050
MA1-SMZH-002-FD-070	FD	.070
MA1-SMZH-002-LD-070	LD	.070
MA1-SMZH-002-SB-070	SB	.070
MA1-SMZH-002-FD-090	FD	.090
MA1-SMZH-002-LD-090	LD	.090
MA1-SMZH-002-SB-090	SB	.090



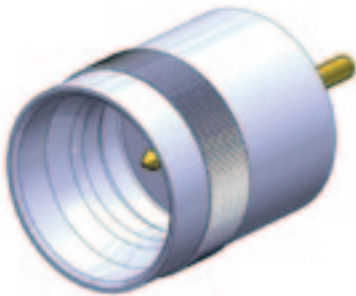
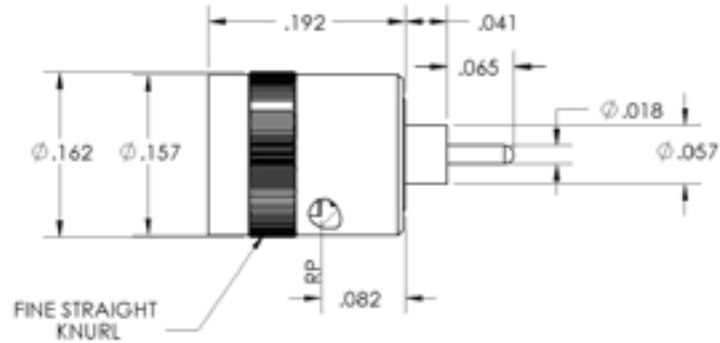
SMP HERMETIC FEEDTHRU, SHROUDED LOW PROFILE .140

Cristek Part Number	Detent	"L"
MA1-SMZH-003-FD-050	FD	.050
MA1-SMZH-003-LD-050	LD	.050
MA1-SMZH-003-SB-050	SB	.050
MA1-SMZH-003-FD-070	FD	.070
MA1-SMZH-003-LD-070	LD	.070
MA1-SMZH-003-SB-070	SB	.070
MA1-SMZH-003-FD-090	FD	.090
MA1-SMZH-003-LD-090	LD	.090
MA1-SMZH-003-SB-090	SB	.090



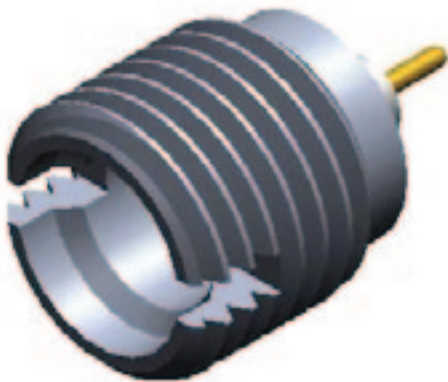
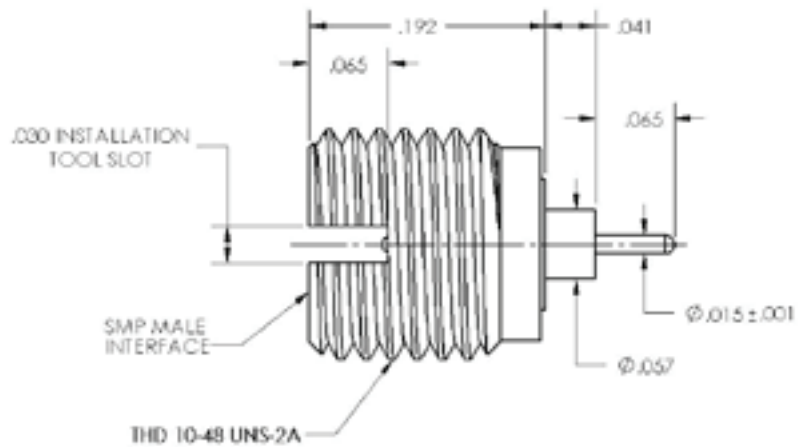
SMP PRESS IN “SPARK PLUG”, NON HERMETIC

Cristek Part Number	Detent
MA1-SMZP-001-FD	FD
MA1-SMZP-001-LD	LD
MA1-SMZP-001-SB	SB



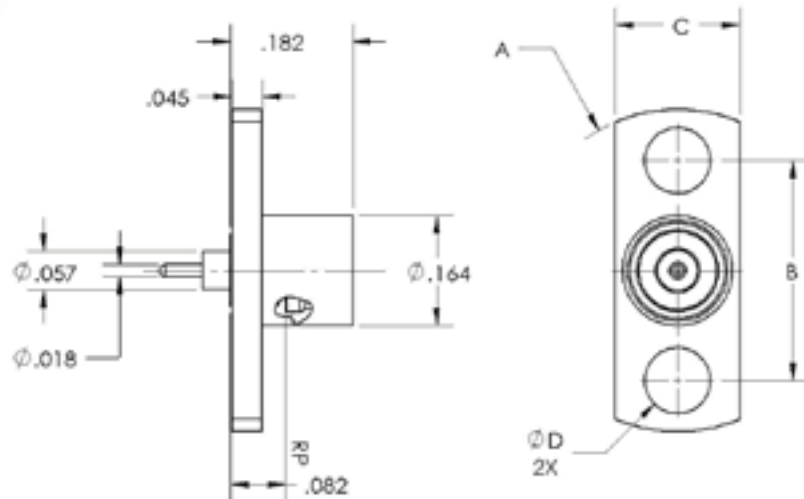
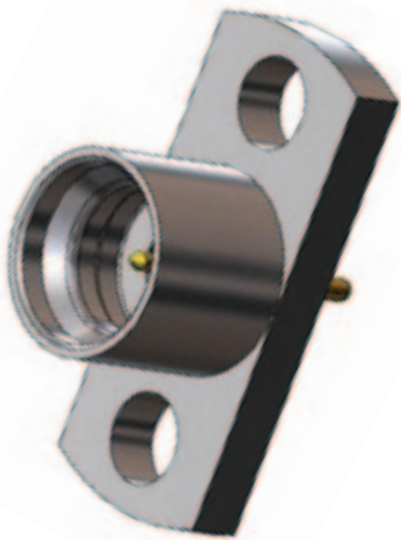
SMP THREAD IN, “SPARK PLUG”, NON HERMETIC

Cristek Part Number	Detent
MA-SMZT-001-FD	FD
MA-SMZT-001-LD	LD
MA-SMZT-001-SB	SB



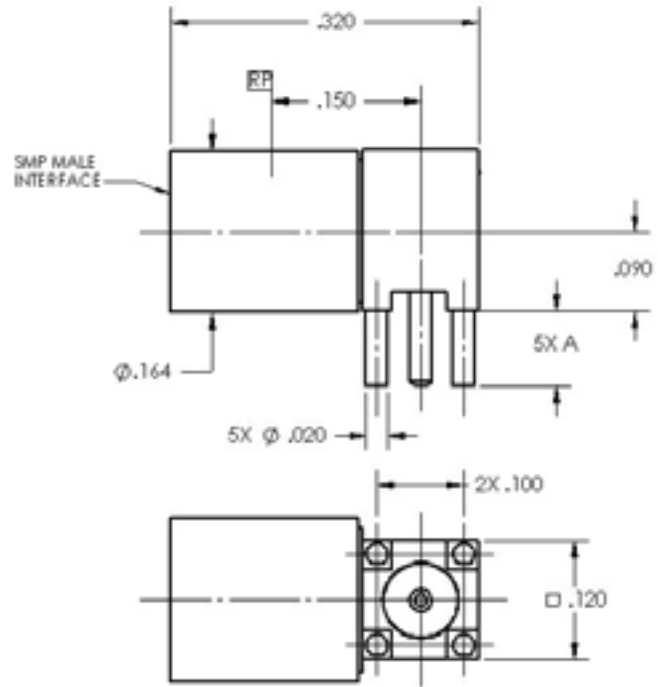
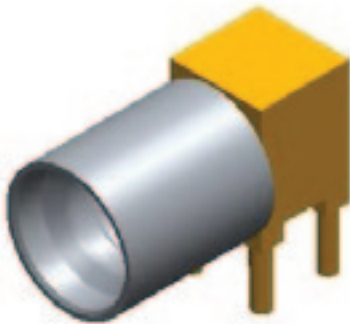
SMP FEED THRU, FLANGE MOUNT, SHROUDED LAUNCH

Cristek Part Number	Detent	Dim A	Dim B	Dim C	Dim D
MA1-SMZP-001-FD	FD	Ø.400	.282	.165	Ø.073
MA1-SMZP-001-LD	LD	Ø.400	.282	.165	Ø.073
MA1-SMZP-001-SB	SB	Ø.400	.282	.165	Ø.073
MA1-SMZP-002-FD	FD	Ø.480	.328	.186	Ø.098
MA1-SMZP-002-LD	LD	Ø.480	.328	.186	Ø.098
MA1-SMZP-002-SB	SB	Ø.480	.328	.186	Ø.098
MA1-SMZP-003-FD	FD	Ø.625	.481	.223	Ø.102
MA1-SMZP-003-LD	LD	Ø.625	.481	.223	Ø.102
MA1-SMZP-003-SB	SB	Ø.625	.481	.223	Ø.102



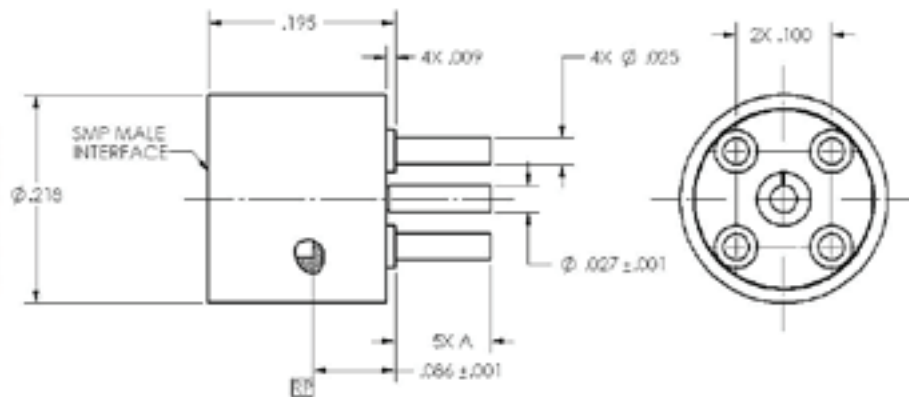
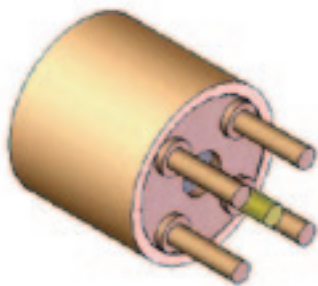
SMP MALE, RIGHT ANGLE, THRU HOLE, PCB

Cristek Part Number	Dim A	Detent
MA1-SMDR-001-FD	.096	FD
MA1-SMDR-001-LD	.096	LD
MA1-SMDR-001-SB	.096	SB
MA1-SMDR-002-FD	.140	FD
MA1-SMDR-002-LD	.140	LD
MA1-SMDR-002-SB	.140	SB



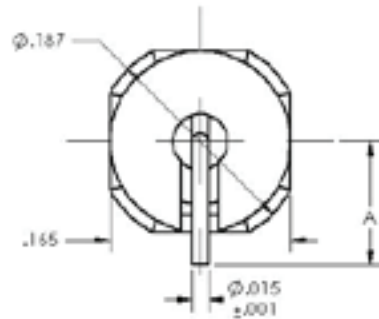
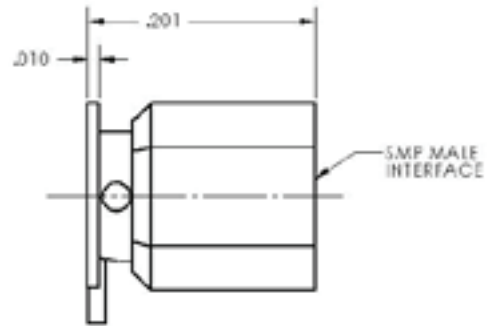
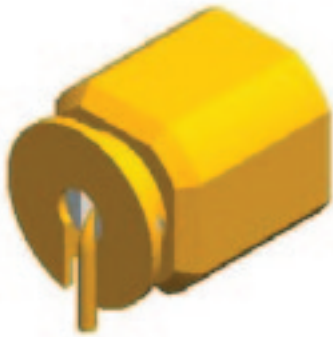
SMP MALE, VERTICAL, THRU HOLE, PCB

Cristek Part Number	Dim A	Detent
MA1-SMDS-001-FD	.100	FD
MA1-SMDS-001-LD	.100	LD
MA1-SMDS-001-SB	.100	SB
MA1-SMDS-002-FD	.140	FD
MA1-SMDS-002-LD	.140	LD
MA1-SMDS-002-SB	.140	SB



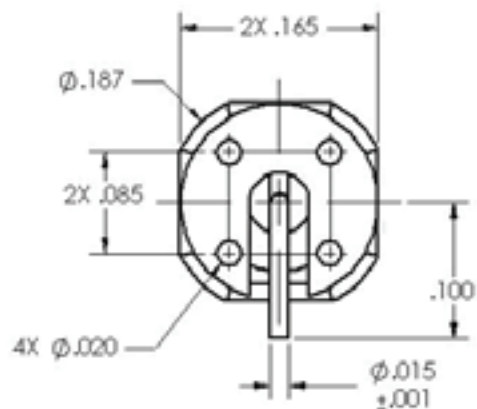
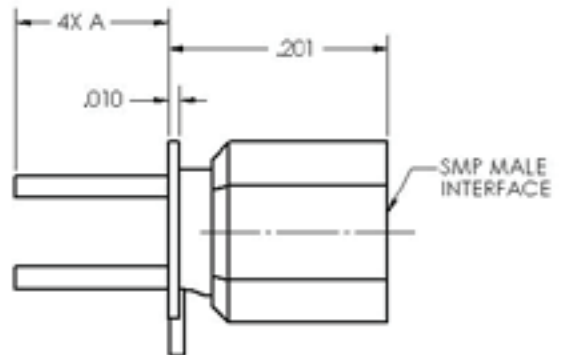
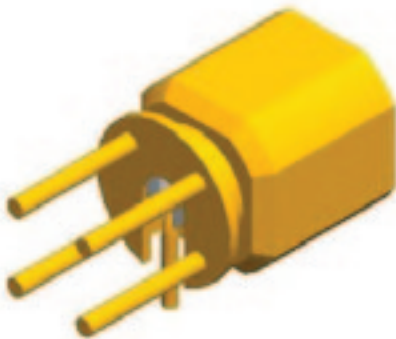
SMP MALE, VERTICAL, SURFACE MOUNT, PCB

Cristek Part Number	Dim A	Detent
MA-SMUN-001-FD	.100	FD
MA-SMUN-001-LD	.100	LD
MA-SMUN-001-SB	.100	SB



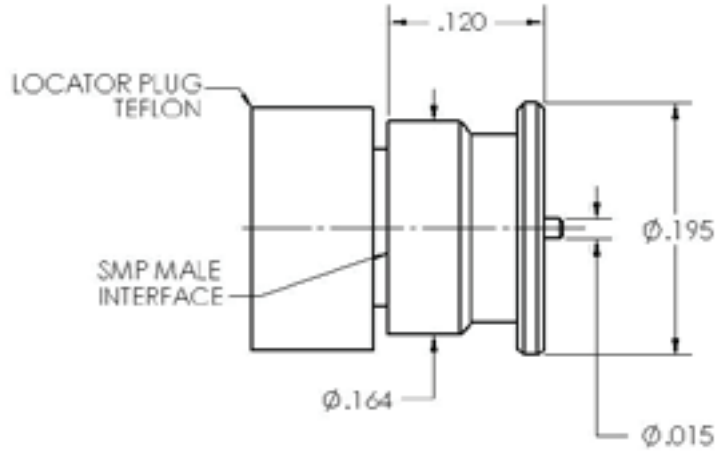
SMP MALE, VERTICAL, SURFACE MOUNT WITH THRU LEGS, PCB

Cristek Part Number	Dim A	Detent
MA-SMUN-004-FD	.140	FD
MA-SMUN-004-LD	.140	LD
MA-SMUN-004-SB	.140	SB



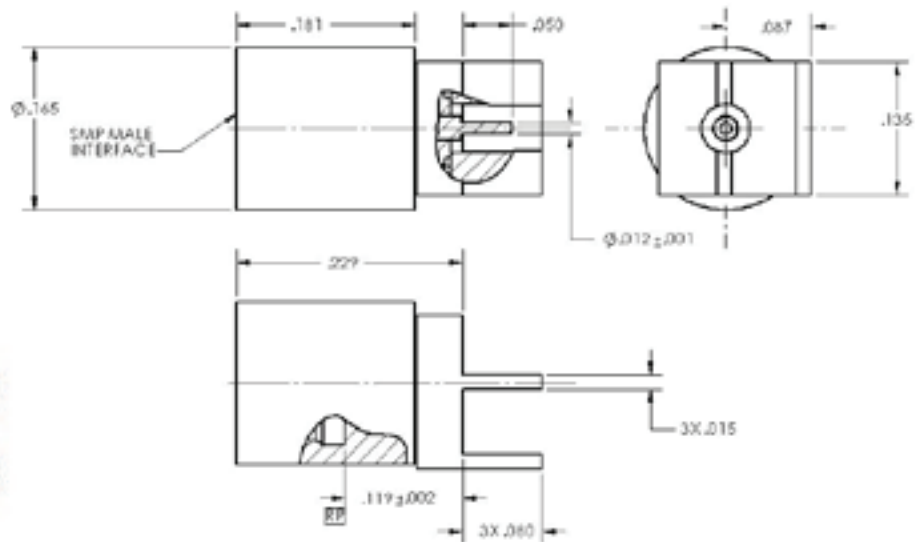
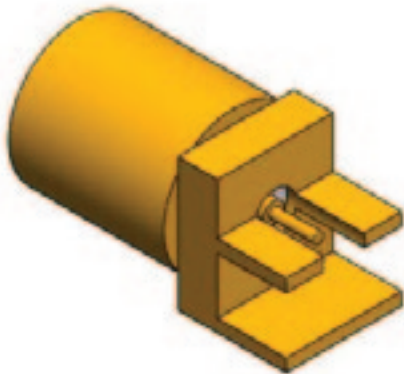
SMP MALE, VERTICAL, SURFACE MOUNT, PCB

Cristek PN	Detent
MA-SMUS-002-FD	FD
MA-SMUS-002-LD	LD
MA-SMUS-002-SB	SB



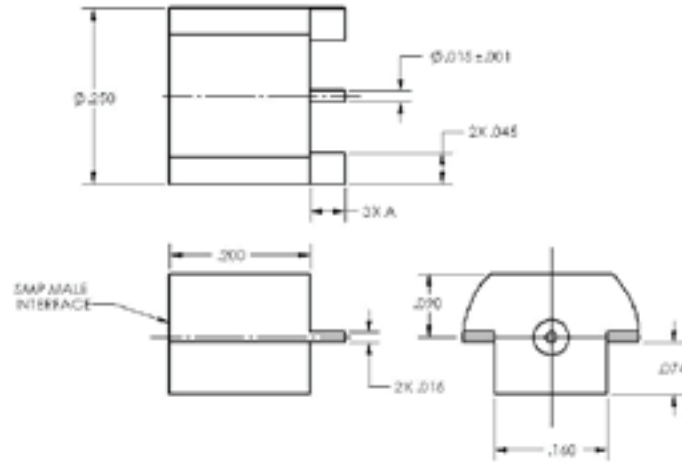
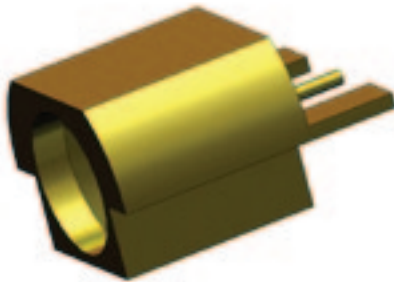
SMP MALE, EDGE LAUNCH, PCB

Cristek PN	Detent
MA1-SMZE-001-FD	FD
MA1-SMZE-001-LD	LD
MA1-SMZE-001-SB	SB



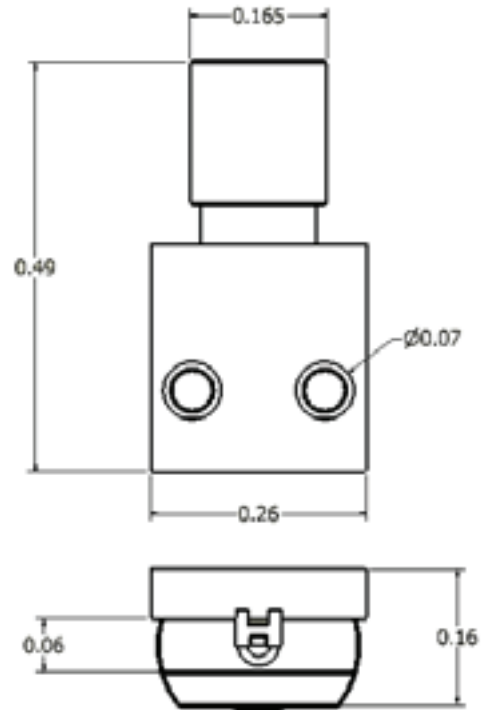
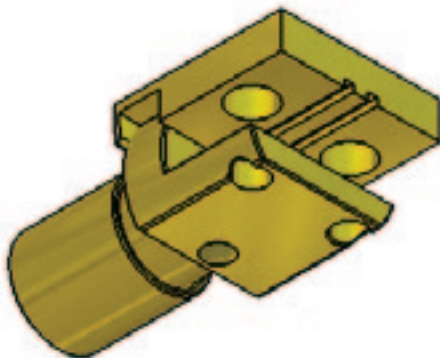
SMP MALE, NOTCH EDGE LAUNCH, PCB

Cristek PN	Dim A	Detent
MA-SMZE-002-FD	.090	FD
MA-SMZE-002-LD	.090	LD
MA-SMZE-002-SB	.090	SB



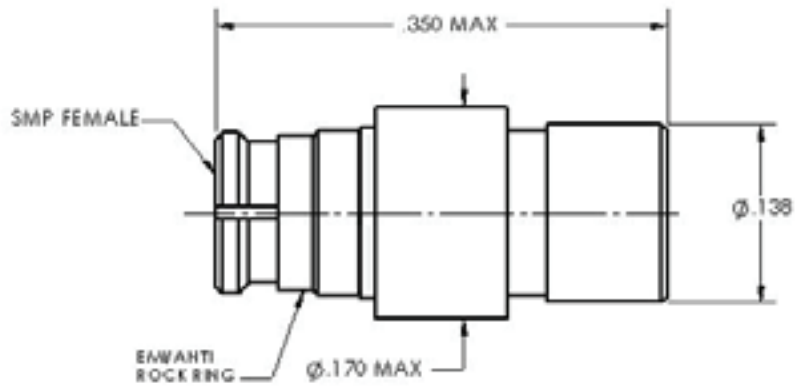
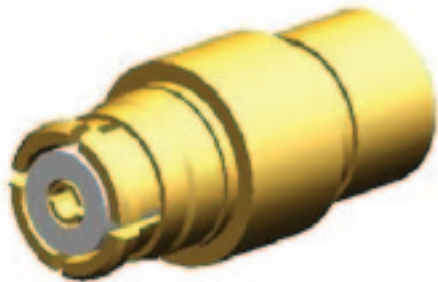
SMP MALE, SOLDERLESS EDGE LAUNCH, PCB

Cristek PN	BOARD THICKNESS	Detent
MA-SMNJ-001-FD	.020	FD
MA-SMNJ-001-LD	.020	LD
MA-SMNJ-001-SB	.020	SB
MA-SMNJ-002-FD	.030	FD
MA-SMNJ-002-LD	.030	LD
MA-SMNJ-002-SB	.030	SB



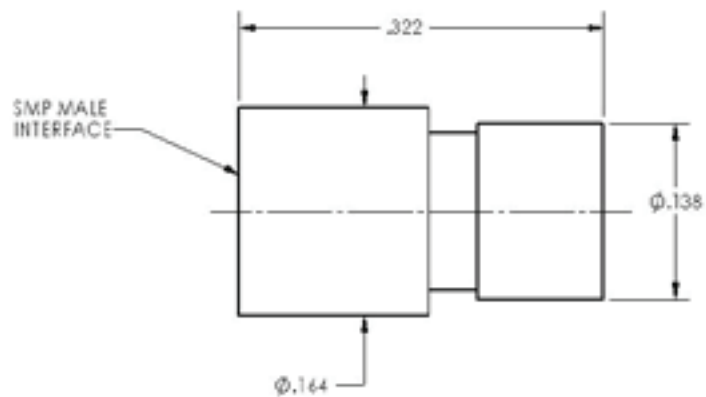
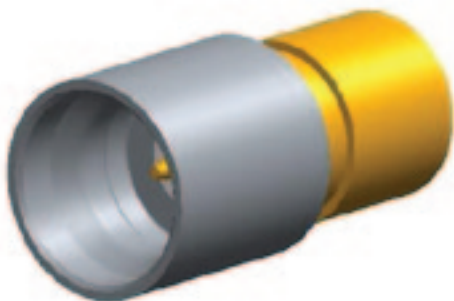
SMP FEMALE, 50 OHM, FIELD GRADE TERMINATION

Cristek PN	VSWR MAX.	FREQUENCY RANGE	POWER MAX.
MA1-SFTS-002	1.15:1 1.30:1	DC to 18 GHz 18 to 40 GHz	.25 Watts



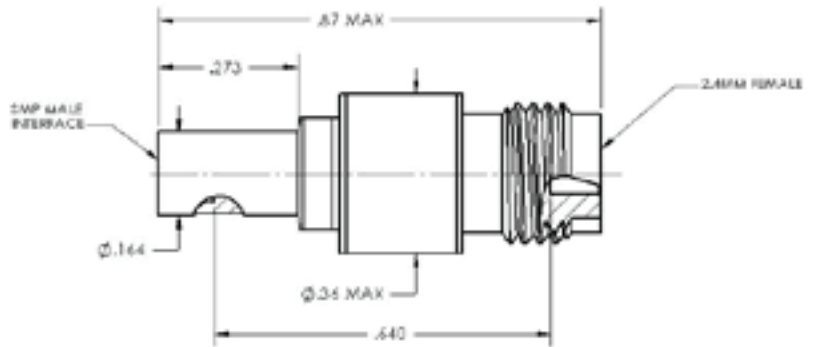
SMP MALE, 50 OHM, FIELD GRADE TERMINATION

Cristek PN	Detent	VSWR MAX	FREQUENCY RANGE	POWER MAX.
MA1-SMTS-002-FD	Full	1.15:1 1.30:1	DC TO 18 GHZ 18 TO 40 GHZ	.25 WATTS
MA1-SMTS-002-LD	Limited			
MA1-SMTS-002-SB	Smooth			



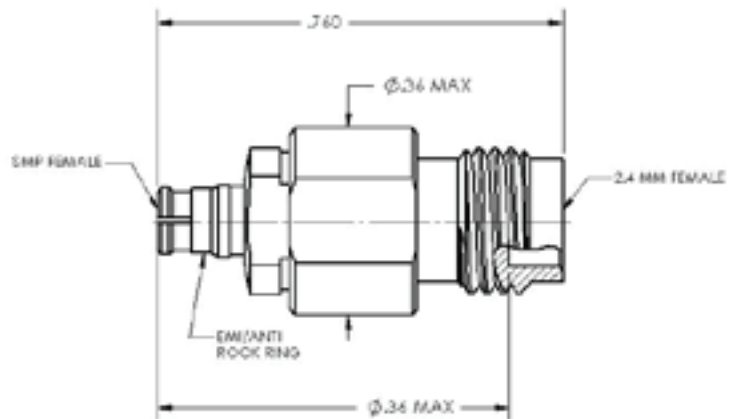
SMP MALE TO 2.4MM JACK ADAPTER

Cristek Part Number	VSWR MAX	FREQUENCY RANGE	DETENT
MD1-FJSD-SS-001	1.2:1	DC TO 40 GHZ	Full
MD1-FJSL-SS-001	1.2:1	DC TO 40 GHZ	Limited
MD1-FJSS-SS-001	1.2:1	DC TO 40 GHZ	Smooth



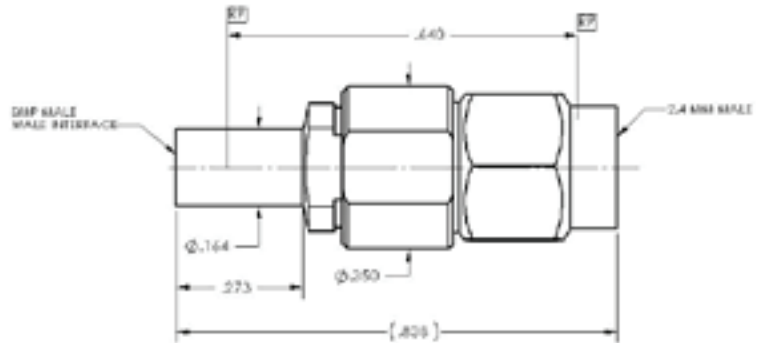
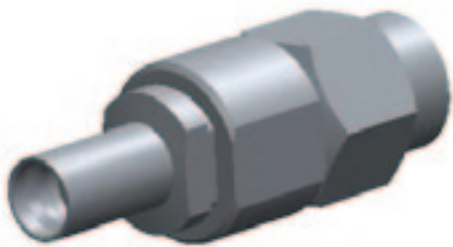
SMP FEMALE TO 2.4MM JACK ADAPTER

Cristek Part Number	VSWR MAX	FREQUENCY RANGE
MD1-FJSF-SS-001	1.2:1	DC TO 40 GHZ



SMP MALE TO 2.4MM PLUG ADAPTER

Cristek Part Number	VSWR MAX	FREQUENCY RANGE	DETENT
MD1-FPSD-SS-001	1.2:1	DC TO 40 GHZ	Full
MD1-FPSL-SS-001	1.2:1	DC TO 40 GHZ	Limited
MD1-FPSS-SS-001	1.2:1	DC TO 40 GHZ	Smooth



SMP FEMALE TO 2.4MM PLUG ADAPTER

Cristek Part Number	VSWR MAX	FREQUENCY RANGE
MD1-FPSF-SS-001	1.2:1	DC TO 40 GHZ

