

# EPsMA™ Connectors



**EPsMA™**  
Enhanced Performance



EPsMA™ Connectors H5638-3CCSF, H5771-6CCSF, H5959-6CCSF, H5696-5CCSF and H5772-6CCSF

## INTRODUCTION

The EPsMA™ (Enhanced Performance) connector series improves upon the performance of the ubiquitous standard SMA connector. Carlisle's EPsMA™ connectors are designed and tuned to provide ultra low VSWR (typically 1.15:1) and mode free operation to 27 GHz. The current product offering consists of field replaceable styles with industry standard flange configurations and pin sizes. In addition, we provide SMA cable assemblies in different configurations to match the frequency coverage of the EPsMA™ product line.

The EPsMA™ product line is ideal for use in high performance military systems and test & measurement applications where improved match and frequency coverage are desired. The EPsMA™ connector series is designed with a thicker outer wall that increases the durability for repeated matings, making this an excellent choice for harsh military and defense applications.

## FEATURES

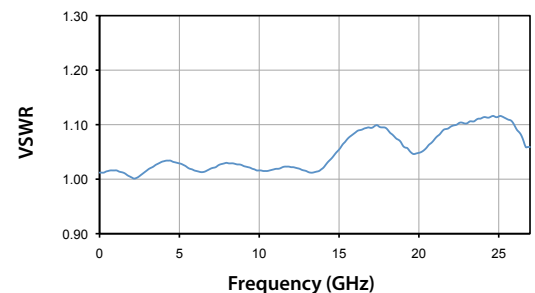
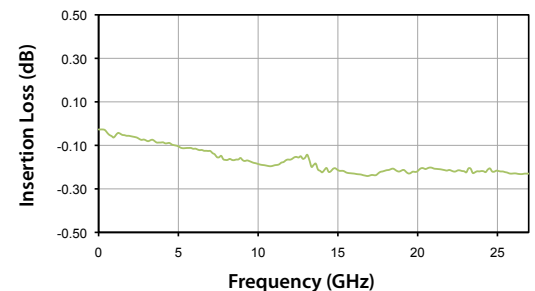
- » Frequency range: DC to 27 GHz
- » Low VSWR (1.15:1 max to 27 GHz)
- » 2-Hole and 4-Hole flange mount field replaceable configurations
- » Low RF leakage (less than 90 dB)
- » MIL-STD 348 compliant interface

## SPECIFICATIONS

Parameter	Specification
Impedance	50 Ohms
Frequency Range	DC-27 GHz
VSWR	DC - 18 GHz: 1.10.1 (max) 18 - 27 GHz: 1.15.1 (max)
Insertion Loss	.035 x $\sqrt{f}$ (GHz)
RF Leakage	-(100 - f(GHz))
Working Voltage	335 Vrms Max at Sea-Level
Dielectric Withstanding Voltage	1000 Vrms min
RF HiPot Voltage	670 Vrms min at 5 MHz
Corona Level	250 Vrms at 70,000 ft
Center Contact Captivation - Axial Force from Interface	6 lbs (min)
Rotational Captivation - Torque	4 in-oz (min)
Coupling Proof Torque	15 in-lbs (min)
Coupling Mech. Retention	60 lbs (min)
Temperature Range	-65°C to +165°C
Environmental	Meets MIL-STD-202 for Corrosion, Vibration Moisture Resistance, Thermal and Mechanical Shock

## TYPICAL PERFORMANCE DATA

Insertion Loss and VSWR measurement on a mated pair of H5773-6CCSF



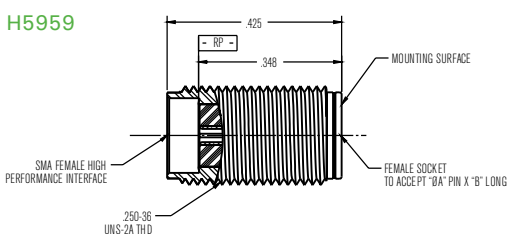
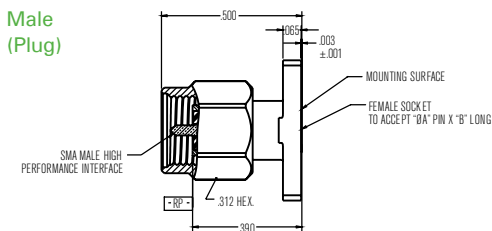
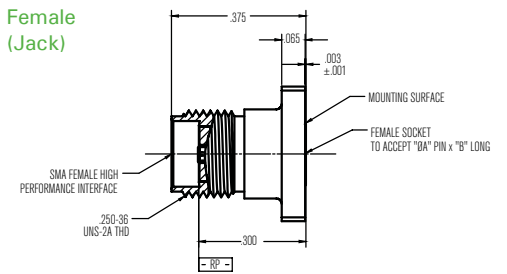
## ORDERING INFORMATION

Common configurations are in stock and available for immediate delivery.

Configuration	Part Number	Description	Options
4 Hole Flange mount	H5774 -	0.5" SQ w/ SMA (male)	<p><b>Add one of the following suffixes to the selected part number based on pin diameter:</b></p> <ul style="list-style-type: none"> <li>-1CCSF (rear socket accepts 0.009" diameter pin)</li> <li>-2CCSF (rear socket accepts 0.012" diameter pin)</li> <li>-3CCSF (rear socket accepts 0.015" diameter pin)</li> <li>-4CCSF (rear socket accepts 0.018" diameter pin)</li> <li>-5CCSF (rear socket accepts 0.020" diameter pin)</li> <li>-6CCSF (rear socket accepts 0.036" diameter pin)</li> </ul> <p>All parts have a captivated center contact pin and a stainless steel finish</p>
	H5610 -	0.5" SQ w/ SMA (female)	
4 Hole Flange mount	H5772 -	0.375" SQ w/ SMA (male)	
	H5638 -	0.375" SQ w/ SMA (female)	
4 Hole Flange mount	H5773 -	0.5" X 0.375" w/ SMA (male)	
	H5639 -	0.5" X 0.375" w/ SMA (female)	
2 Hole Flange mount	H5771 -	0.223" X 0.625" L w/ SMA (male)	
	H5637 -	0.223" X 0.625" L w/ SMA (female)	
2 Hole Flange mount	H5770 -	0.190" X 0.550" L w/ SMA (male)	
	H5636 -	0.190" X 0.550" L w/ SMA (female)	
2 Hole Flange mount	H5695 -	0.190" X 0.500" L w/ SMA (male)	
	H5696 -	0.190" X 0.500" L w/ SMA (female)	
Thread-in	H5955 -	SMA (male) thread-in	
	H5959 -	SMA (female) thread-in	

## OUTLINE DRAWINGS

### EPsMA™ Connector Interfaces



### Flange Configurations

