



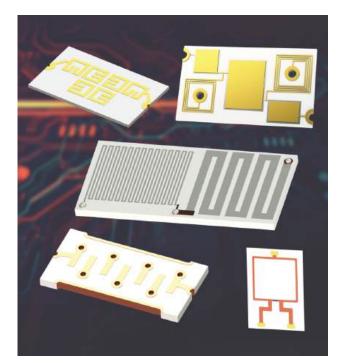
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# CUSTOM BUILD THIN FILM

# **GENERAL DESCRIPTION**

KYOCERA AVX is pleased to introduce custom Thin Film products produced at our Myrtle Beach facility in South Carolina. We offer a wide range of capabilities for integrated passive devices, manufactured using our thin film process for a variety of RF capable devices. For **Build-to-Print**, **Build-to-Spec** or **Custom Design** services, our six-inch (150 mm) wafer technology offers a wide range of device capabilities in a broad spectrum of frequencies for the most demanding application requirements, meeting ITAR and MIL spec requirements.

Our process allows for a large family of devices available to be manufactured. Custom discrete components including Trimmed Resistors, RF Capacitors, RF Inductors. Also, hybrid Circuits, including integrated passive LC, RC, and distributed filters. For applications utilizing chiplet, SOC or other modular designs, custom thin film components can be manufactured as a basis on a variety of substrates for IC's, including AIN, Alumina, Silicon, Glass, Quartz plus more; with sputtered and plating materials: Au, Cu, Al, and Ni.



# MARKETS AND APPLICATIONS

#### Military, Aerospace, and Space:

- RF and Microwave filters
- Precision resistors
- MOS capacitors
- Circulators, Splitters
- Specialized modules
- Custom integrated substrates

## Medical and Instrumentation:

- Precision resistor networks
  and arrays
- · In-circuit trimmed designs
- Telemetry filters
- Miniature circuits and assemblies
- Non-magnetic materials
  available

## **Broadband Infrastructure:**

- Laser diode mounts and heat sinks
- Optoelectronic converters
- RF and DC fan-outs

#### Instrumentation:

Ultra-precision reference capacitors and resistors

# **CUSTOM BUILD THIN FILM**



# CUSTOM DESIGN OPTIONS OVERVIEW

#### **Available Devices for Manufacturing:**

- Filters
- Dividers
- Splitters
- Integrated Passive Devices
- Resistor Dividers
- Stackable Filters

# Substrates Available Include:

- AIN
- Alumina Silicon
- Glass
- Quartz

#### **Thin Film Sputtered and Plated** Metals Available Include:

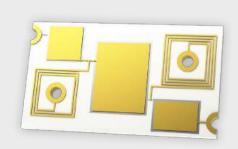
- Au
- Cu
- AI
- Ni

# **HYBRID CIRCUITS**



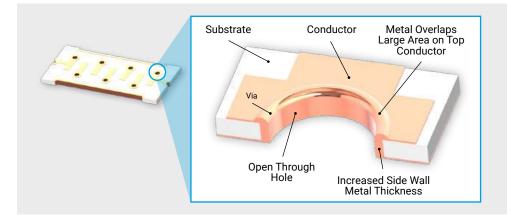
Custom Designs for advanced, highly reliable/ repeatable RF products including lumped element and distributed filters and more. At a large range of frequencies.

Manufactured in the USA to be ITAR compliant.



Inductors and traces with line widths and spacing as low as 10µm

Capacitors designed and built in the pF value range



## **KYOCERA AVX Enhanced** Via<sup>™</sup> Available

- Through AIN or Alumina
- As small as 125µm Diameter

#### **Plated for Electrical Connectivity Available**

**Precision Wraparounds &** Castellations

# **DISCRETE COMPONENTS**



**Resistors available with TaN and SiCr** metallization and trimmed to tight tolerance Matched resistors with low TCR variance

**Several Termination Types Available**