

## SMA Fixed Attenuators Commercial Series



**Emerson Network Power Connectivity Solutions** extends the Johnson line of products with the introduction of a range of SMA Fixed Commercial Attenuators. This range of attenuators is manufactured from non-inductive resistors making it an ideal choice for customers who need to precisely adjust signal levels, in applications that are under 2 watts. These attenuators are currently available in stock in 1, 2, 3, 6 and 10 db, and available in other values on a made to order basis.

The important parameters associated with fixed attenuators include the level of attenuation, the flatness over a specified frequency range, VSWR, power-handling capability, package size, and performance over a given temperature range. The average power limit decreases linearly as temperature increases.

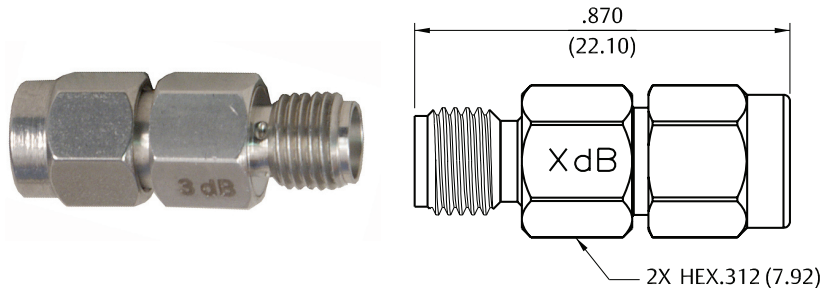
The Johnson line of rugged stainless steel fixed attenuators offers industry leading quality and performance in addition to being competitively priced.

### Key Features & Benefits

- SMA connectors per MIL-STD-348A
- Rugged Stainless Steel Construction
- Hex body for torque wrench tightening
- Excellent VSWR and Flatness
- Compact design
- Ideal for automated test applications

ISO 9001:2000



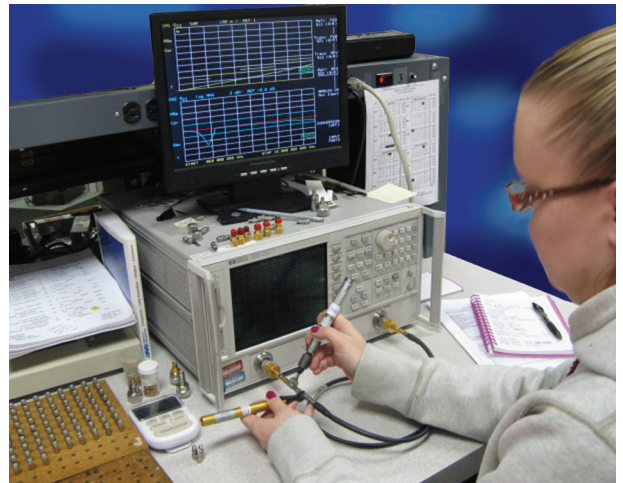


## Technical Specifications

| Attenuation (dB Normal) * | Frequency Range | Stainless Steel Passivated |
|---------------------------|-----------------|----------------------------|
| 1                         | (0-6 GHz)       | 141-3901-801               |
| 2                         | (0-6 GHz)       | 141-3901-802               |
| 3                         | (0-6 GHz)       | 141-3901-803               |
| 6                         | (0-6 GHz)       | 141-3901-806               |
| 10                        | (0-6 GHz)       | 141-3901-810               |

\* Standard values shown. Contact factory for other requirements.

\* Inches (millimeters)



## Electrical Specifications

**Impedance:** 50 Ohms

**Frequency Range:** 0-6 GHz

**Attenuation Values:** 1, 2, 3, 6, and 10 dB Nominal\*

**Attenuation Accuracy:**

| dB * | 0 - 4 GHz | 4 - 6 GHz |
|------|-----------|-----------|
| 1-3  | ±0.3      | ±0.5      |
| 4-6  | ±0.4      | ±0.5      |
| 7-10 | ±0.5      | ±0.5      |

**VSWR Max:**

| dB * | 0 - 2.5 GHz | 2.5 - 4 GHz | 4 - 6 GHz |
|------|-------------|-------------|-----------|
| 1-3  | 1.15 : 1    | 1.20 : 1    | 1.25 : 1  |
| 4-6  | 1.15 : 1    | 1.20 : 1    | 1.25 : 1  |
| 7-10 | 1.15 : 1    | 1.25 : 1    | 1.30 : 1  |

**Average Input Power:** 2 W Max @ +25°C  
Derated Linearly to 0.5W at +125°C

\*Other values available, please contact Factory

## Environmental Specifications

**Temperature Range:** -55°C to +125°C

**Thermal Shock:** MIL-STD-202, Method 107, Condition B except +100°C high temperature)

**Shock:** MIL-STD-202, Method 213, Condition I

**Vibration:** MIL-STD-202, Method 204, Condition D

## Mechanical Specifications

**SMA Connectors:** Per MIL-STD-348A

## Material Specifications

|                        |                                                                          |
|------------------------|--------------------------------------------------------------------------|
| <b>Connector Body</b>  | 303 Stainless Steel per ASTM A582, Passivated per MIL-F-14-72 (EL 300)   |
| <b>Coupling Nut</b>    | 303 Stainless Steel per ASTM A582, Passivated per MIL-F-14-72 (EL 300)   |
| <b>Retaining Ring</b>  | Beryllium Copper per ASTM B196, Unplated                                 |
| <b>SMA Plug Gasket</b> | Silicone Rubber per ZZ-R-765                                             |
| <b>Male Contact</b>    | Brass per ASTM B16, Gold Plated per MIL-G-45204 (.00003 min)             |
| <b>Female Contact</b>  | Beryllium Copper per ASTM B196, Gold Plated per MIL-G-45204 (.00003 min) |
| <b>Insulators</b>      | PTFE per ASTM D1710                                                      |
| <b>Attenuator Card</b> | Alumina per Mil-I-10, RoHS Compliant Terminals                           |

## Competitor Cross Reference

| Emerson      | Aeroflex/Inmet | Huber+Suhner  | XMA          |
|--------------|----------------|---------------|--------------|
| 141-3901-801 | 1AHC-1         | 6601_SMA-50-2 | 2082-6346-01 |
| 141-3901-802 | 1AHC-2         | 6602_SMA-50-2 | 2082-6346-02 |
| 141-3901-803 | 1AHC-3         | 6603_SMA-50-2 | 2082-6346-03 |
| 141-3901-806 | 1AHC-6         | 6606_SMA-50-2 | 2082-6346-06 |
| 141-3901-810 | 1AHC-10        | 6610_SMA-50-2 | 2082-6346-10 |

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