

SFAP Attenuator Series

Description

SemiGen RF/microwave fixed attenuator pads feature precise resistor films and superior metallization resulting in superior performance and consistency. Our advanced thin-film technology allows our parts to have full side wraps for SMT installation and a complete grounding backside for ease in attachment, as no ground bonding is required. Wire bondable top side contacts for RF in/out make these ideal for standard RF/microwave assembly techniques.

They are available as commercial or screened to MIL-PRF-38534 Class H&K. Custom values are easy to fabricate and design allowing users to design in a specific value of choice.

Features

- Oxide-nitride passivated
- Power Handling to 2W CW
- Flat Response from DC to 20 GHz
- Return Loss >18 dB DC to 14 GHz
- Return Loss >16 dB 15 GHz to 20 GHz
- Temp Stable TCR <100 PPM
- Available up screened MIL-PRF-38534 Class H&K

Applications

These attenuator pads are the perfect solution for a wide range of applications including microwave radio, military subsystems, fiber optics, scientific instruments and sensor applications up to 20 GHz.

Absolute Maximum Ratings^{1,2}

| Parameter | Absolute Maximum | |
|-----------------------------|------------------|--|
| Rated Voltage | 50VDC | |
| Operating Temperature | -55°C to +150°C | |
| Storage Temperature | -65°C to +200°C | |
| Moisture Sensitivity Rating | MSL 1 | |

1. Exceeding any one or combination of these limits may cause permanent damage to this device.

 SemiGen does not recommend sustained operation near these survivability limits.

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Static Sensitivity

Moisture Sensitivity

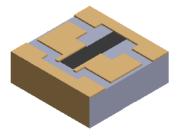
SemiGen attenuators are MSL 1.

electronic devices are sensitive

electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these devices.

These

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Available Parts

| Part Number | Attenuation (dB) | Flatness | Return Loss (dB) | Outline |
|-------------|------------------|----------|------------------|------------|
| SFAP-0dB | 0 | +/20 | >18 | <u>PDF</u> |
| SFAP-1dB | 1 | +/20 | >18 | <u>PDF</u> |
| SFAP-2dB | 2 | +/20 | >18 | <u>PDF</u> |
| SFAP-3dB | 3 | +/20 | >18 | <u>PDF</u> |
| SFAP-4dB | 4 | +/20 | >18 | <u>PDF</u> |
| SFAP-5dB | 5 | +/20 | >18 | <u>PDF</u> |
| SFAP-6dB | 6 | +/25 | >18 | <u>PDF</u> |
| SFAP-7dB | 7 | +/25 | >18 | <u>PDF</u> |
| SFAP-8dB | 8 | +/25 | >18 | <u>PDF</u> |
| SFAP-9dB | 9 | +/25 | >18 | <u>PDF</u> |
| SFAP-10dB | 10 | +/25 | >18 | <u>PDF</u> |
| SFAP-11dB | 11 | +/30 | >18 | |
| SFAP-12dB | 12 | +/30 | >18 | <u>PDF</u> |
| SFAP-13dB | 13 | +/30 | >18 | <u>PDF</u> |
| SFAP-14dB | 14 | +/30 | >18 | <u>PDF</u> |
| SFAP-15dB | 15 | +/30 | >18 | <u>PDF</u> |
| SFAP-16dB | 16 | +/40 | >18 | <u>PDF</u> |
| SFAP-17dB | 17 | +/40 | >18 | <u>PDF</u> |
| SFAP-18dB | 18 | +/40 | >18 | <u>PDF</u> |
| SFAP-19dB | 19 | +/40 | >18 | <u>PDF</u> |
| SFAP-20dB | 20 | +/40 | >18 | <u>PDF</u> |
| SFAP-21dB | 21 | +/50 | >18 | |
| SFAP-22dB | 22 | +/50 | >18 | <u>PDF</u> |
| SFAP-23dB | 23 | +/50 | >18 | |
| SFAP-24dB | 24 | +/50 | >18 | |
| SFAP-25dB | 25 | +/50 | >18 | <u>PDF</u> |
| SFAP-26dB | 26 | +/60 | >18 | |
| SFAP-27dB | 27 | +/60 | >18 | |
| SFAP-28dB | 28 | +/60 | >18 | <u>PDF</u> |
| SFAP-29dB | 29 | +/60 | >18 | <u>PDF</u> |
| SFAP-30dB | 30 | +/60 | >18 | <u>PDF</u> |

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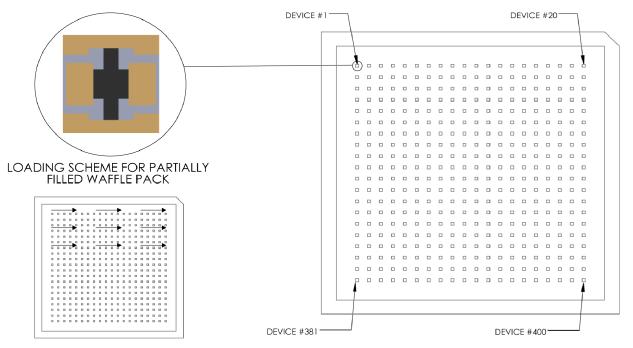
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Device Orientation Within Packaging



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