

Digital Variable Attenuator

RFDVA07-10 is a digital variable attenuator operates from DC - 7 GHz and can be used in low power S, C band application or variable gain amplifier. The attenuator provides low insertion loss: 0.9dB, 3dB, 6dB, 9dB. The input and output are matched to 50 ohms with on-chip DC blocking capacitors. The device is specifically designed for use in DC - 7 GHz frequency in point-to-point radios for cellular backhaul Application, 5G RF Transceiver & SATCOM. The technology used to design DVA is 0.1um GaAs pHEMT Process. Results are shown in datasheet with all parasitic & coupling effects at desired frequency.

Features:

- RF Frequency: DC-7 GHz
- Insertion loss: of 0.9dB,3dB,6dB,9dB
- 0-8dB of attenuation @ 18-30 GHz
- Bias Voltage = 4/-4V
- 0.1um GaAs pHEMT Technology.
- Die Size: 0.8 mm x 1.2 mm.

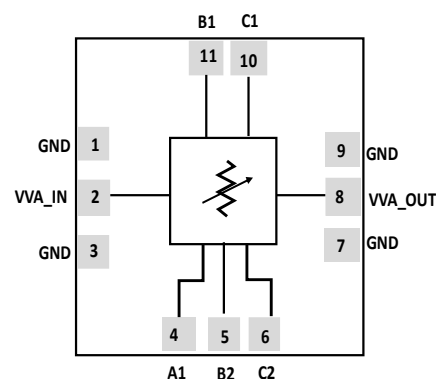
Application:

- 5G mobile system.
- Satellite Communication.
- Point to point communication system.
- Wi-Fi.
- IoT.

Tech Specs:

- Part Number: RFDVA07-10
- Provider: RFIC Solutions Inc.
- Foundry node: 0.1um GaAs pHEMT Win Semiconductors
- Porting: IP can be ported to 65nm Si / CMOS node
- Maturity: IC is fabricated and tested.
- Availability: Now

Functional Block Diagram:



Deliverables:

- Schematic and Netlist
- Abstract Model (.lib file)
- Layout View(Optional)
- Behavioral model (Circuit & EM simulation)
- Extracted View(Optional)
- GDSII
- DRC, LVS, Antenna report
- Test bench with configuration(Optional)
- Documentation

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