

# Voltage Variable Absorptive Attenuator

## DC - 5 GHz

AT-201

V 2.00

### Features

- Miniature Ceramic Package
- Fast Switching Speed, 4 ns Typical
- Ultra Low DC Power Consumption

### Guaranteed Specifications \*

(From -55°C to +85°C)

| Frequency Range             | DC - 5 GHz      |              |
|-----------------------------|-----------------|--------------|
| Insertion Loss              | DC - 5 GHz      | 2.5 dB Max   |
|                             | DC - 3 GHz      | 1.3 dB Max   |
|                             | DC - 2 GHz      | 1.5 dB Max   |
| VSWR                        | DC - 5 GHz      | 2.0:1 dBMax  |
|                             | DC - 3 GHz      | 1.5:1 dB Max |
|                             | DC - 2 GHz      | 1.5:1 dB Max |
| Attenuation                 | DC - 4 GHz      | 20 dB Max    |
|                             | DC - 5 GHz      | 18 dB Max    |
| Flatness<br>(Peak to Peak)  | *DC - 5 GHz     | 2.5 dB Max   |
|                             | DC - 3 GHz      | 1.5 dB Max   |
|                             | DC - 2 GHz      | 1.0 dB Max   |
| Attenuation vs. Temperature | 0 to 10 dB Att. | ±0.6 dB      |
|                             | 20 dB Att.      | ±2.5 dB      |

\* To 15 dB attenuation

### Operating Characteristics

|                                                                            |                           |       |         |
|----------------------------------------------------------------------------|---------------------------|-------|---------|
| Impedance                                                                  | 50 Ohms Nominal           |       |         |
| Switching Characteristics                                                  |                           |       |         |
| Trise, Tfall (10% to 90%)                                                  | 4 ns Typ                  |       |         |
| Ton, Toff (50% C+L to 90%/10% RF)                                          | 8 ns Typ                  |       |         |
| Transients (in band)                                                       | 10 mv Typ                 |       |         |
| Input Power for 1 dB Compression                                           |                           |       |         |
| Attenuation Level                                                          | 0 dB                      | 20 dB |         |
| .05 GHz to 5 GHz                                                           | +16                       | +11   | dBm Typ |
| Intermodulation Intercept Point<br>(for two-tone input power up to +5 dBm) |                           |       |         |
| Intercept Points                                                           | IP2                       | IP3   |         |
| .05 GHz to 5 GHz                                                           | +25                       | +13   | dBm Typ |
| Control Voltages                                                           |                           |       |         |
| A Input (Shunt FETS)                                                       | -1.5 to -4 V @ 100 μA Max |       |         |
| B Input (Series FETS)                                                      | 0 to -4 V @ 100 μA Max    |       |         |
| Environmental                                                              |                           |       |         |
| See Appendix for MIL-STD-883 screening option.                             |                           |       |         |

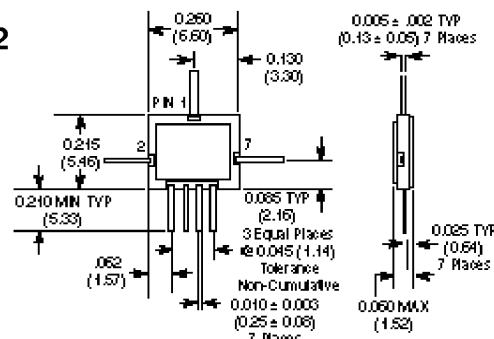
\* All specifications apply with 50 ohm connected to all RF ports.

† Faster switching speed can be achieved with enhanced driver waveform.  
Switching speed is measured between 20 dB and 2 dB attenuation levels.

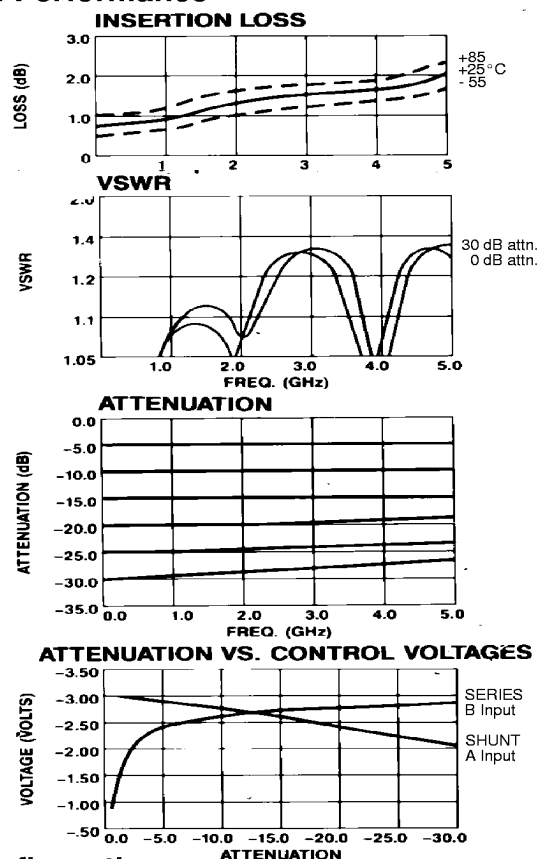
### Ordering Information

| Model No.  | Package |
|------------|---------|
| AT-201 PIN | Ceramic |

### CR-2



### Typical Performance



### Pin Configuration

