

## VOLTAGE VARIABLE ATTENUATORS (Narrowband models)

| Model Number | Frequency,<br>Center (MHz) | Bandwidth<br>Min (%) | Ins. Loss<br>Typ/Max (db) | Attenuation<br>Range, Min (dB) | Ret Loss<br>Typ/Min (dB) | Package |
|--------------|----------------------------|----------------------|---------------------------|--------------------------------|--------------------------|---------|
| ATV/30A-05   | 30                         | 10                   | 0.8/1.6                   | 25                             | 22/14                    | 05      |
| ATV/70A-05   | 70                         | 10                   | 0.8/1.6                   | 25                             | 22/14                    | 05      |
| ATV/140A-05  | 140                        | 10                   | 0.8/1.6                   | 25                             | 22/14                    | 05      |
| ATV/260B-05  | 260                        | 10                   | 0.8/1.6                   | 22                             | 22/14                    | 05      |
| ATV/500B-05  | 500                        | 10                   | 0.8/1.6                   | 20                             | 20/13                    | 05      |
| ATV/750C-05  | 750                        | 10                   | 0.8/1.6                   | 15                             | 20/13                    | 05      |
| ATV/850D-05  | 850                        | 10                   | 0.8/1.6                   | 12                             | 18/12                    | 05      |
| ATV/950E-05  | 950                        | 10                   | 0.8/1.6                   | 10                             | 18/12                    | 05      |
| ATV/1000E-05 | 1000                       | 10                   | 0.8/1.6                   | 10                             | 18/12                    | 05      |
| ATV/1200C-63 | 1200                       | 15                   | 1.2/1.8                   | 15                             | 18/14                    | 63      |
| ATV/1400C-63 | 1400                       | 15                   | 1.2/1.8                   | 15                             | 18/14                    | 63      |
| ATV/1600C-63 | 1600                       | 15                   | 1.3/2.0                   | 15                             | 16/12                    | 63      |
| ATV/1800C-63 | 1800                       | 15                   | 1.3/2.0                   | 15                             | 16/10                    | 63      |
| ATV/1900C-63 | 1900                       | 15                   | 1.3/2.0                   | 15                             | 16/10                    | 63      |
| ATV/2000C-63 | 2000                       | 15                   | 1.3/2.0                   | 15                             | 16/10                    | 63      |
| ATV/2200C-63 | 2200                       | 15                   | 1.3/2.0                   | 15                             | 14/9                     | 63      |
| ATV/2400D-63 | 2400                       | 15                   | 1.3/2.2                   | 12                             | 14/9                     | 63      |
| ATV/2500D-63 | 2500                       | 15                   | 1.3/2.2                   | 12                             | 14/9                     | 63      |
| ATV/2800D-63 | 2800                       | 15                   | 1.4/3.0                   | 12                             | 14/9                     | 63      |
| ATV/3000D-63 | 3000                       | 15                   | 1.4/3.0                   | 12                             | 14/9                     | 63      |
| ATV/30A-30   | 30                         | 10                   | 1.3/2.3                   | 40                             | 19/12                    | 30      |
| ATV/70A-30   | 70                         | 10                   | 1.3/2.4                   | 40                             | 19/12                    | 30      |
| ATV/140A-30  | 140                        | 10                   | 1.3/2.7                   | 35                             | 19/12                    | 30      |
| ATV/260A-30  | 260                        | 10                   | 1.3/2.9                   | 35                             | 19/12                    | 30      |
| ATV/500A-30  | 500                        | 10                   | 1.5/3.0                   | 30                             | 19/12                    | 30      |
| ATV/750A-30  | 750                        | 10                   | 1.8/3.2                   | 25                             | 19/12                    | 30      |
| ATV/850B-30  | 850                        | 10                   | 2.0/3.3                   | 20                             | 19/12                    | 30      |
| ATV/950B-30  | 950                        | 10                   | 1.6/3.3                   | 20                             | 19/12                    | 30      |
| ATV/1000B-30 | 1000                       | 10                   | 1.6/3.3                   | 20                             | 19/12                    | 30      |
| ATV/30A-32   | 30                         | 10                   | 0.9/1.7                   | 25                             | 22/14                    | 32      |
| ATV/70A-32   | 70                         | 10                   | 0.9/1.7                   | 25                             | 22/14                    | 32      |
| ATV/140A-32  | 140                        | 10                   | 0.9/1.7                   | 25                             | 22/14                    | 32      |
| ATV/260B-32  | 260                        | 10                   | 0.9/1.7                   | 22                             | 22/14                    | 32      |
| ATV/500B-32  | 500                        | 10                   | 0.9/1.7                   | 20                             | 20/13                    | 32      |
| ATV/750C-32  | 750                        | 10                   | 0.9/1.7                   | 15                             | 20/13                    | 32      |
| ATV/850D-32  | 850                        | 10                   | 0.9/1.7                   | 12                             | 18/12                    | 32      |
| ATV/950E-32  | 950                        | 10                   | 0.9/1.7                   | 10                             | 18/12                    | 32      |
| ATV/1000E-32 | 1000                       | 10                   | 0.9/1.7                   | 10                             | 18/12                    | 32      |

**Notes for Narrowband Variable Attenuators:**

Many other frequencies, packages, input power, and bandwidth choices are available. Please consult factory.

All models available on package style 05 are available in package styles 03, 12, 14, 15 (Hi-Rel version).

Common Specs: DC Bias: Not required; Input Power: +5 dBm max; Control voltage: 0 to +5V @ 20 mA max.

Standard Operating Temperature Range = -20 to +70, Storage Temperature Range = -40 to +100C

## VOLTAGE VARIABLE ATTENUATORS (Wideband models)

| Model Number  | Frequency, Range (MHz) | DC Bias (Volts) | Ins. Loss Typ/Max (dB) | Attenuation Range, Min (dB) | Ret Loss Typ/Min (dB) | Package |
|---------------|------------------------|-----------------|------------------------|-----------------------------|-----------------------|---------|
| ATV/2000A-64A | 50-2000                | +5V             | 3.5/5.0                | 30                          | 20/14                 | 64      |
| ATV/2000A-64B | 800-2000               | +5V             | 3.5/4.5                | 30                          | 20/14                 | 64      |
| ATV/1000A-64A | 100-1000               | +5V             | 3.5/5.0                | 30                          | 20/14                 | 64      |

**Notes for Variable Wideband Attenuators:**

All models are available in package styles 15, 16, 21 (High Rel), 30, and 32

Common Specifications : IP3= +45 dBm (typ), Control Voltage = 0 to +10 V, Min Atten at Max Control Voltage

## FIXED MODELS

| Model Number | Frequency, Range (GHz) | Nominal Attenuation (dB) | Attenuation Variation (dB) | Ret Loss Typ/Min (dB) | Input Power Max. (W) | Package |
|--------------|------------------------|--------------------------|----------------------------|-----------------------|----------------------|---------|
| ATF/1101     | DC-4.2                 | 1                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1102     | DC-4.2                 | 2                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1103     | DC-4.2                 | 3                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1104     | DC-4.2                 | 4                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1105     | DC-4.2                 | 5                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1106     | DC-4.2                 | 6                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1107     | DC-4.2                 | 7                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1108     | DC-4.2                 | 8                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1109     | DC-4.2                 | 9                        | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1110     | DC-4.2                 | 10                       | 0.25                       | 22/19.5               | 1                    | 68      |
| ATF/1112     | DC-4.2                 | 12                       | 0.30                       | 22/19.5               | 1                    | 68      |
| ATF/1115     | DC-4.2                 | 15                       | 0.40                       | 22/19.5               | 1                    | 68      |
| ATF/1120     | DC-4.2                 | 20                       | 0.50                       | 22/19.5               | 1                    | 68      |
| ATF/1122     | DC-4.2                 | 22                       | 0.60                       | 22/19.5               | 1                    | 68      |
| ATF/1125     | DC-4.2                 | 25                       | 0.80                       | 22/19.5               | 1                    | 68      |
| ATF/1130     | DC-4.2                 | 30                       | 1.00                       | 22/19.5               | 1                    | 68      |
| ATF/1801     | DC-1.5                 | 1                        | 0.20                       | 23/15                 | 2                    | 18      |
| ATF/1802     | DC-1.5                 | 2                        | 0.20                       | 23/15                 | 2                    | 18      |
| ATF/1803     | DC-1.5                 | 3                        | 0.20                       | 23/15                 | 2                    | 18      |
| ATF/1804     | DC-1.5                 | 4                        | 0.20                       | 23/15                 | 2                    | 18      |
| ATF/1805     | DC-1.5                 | 5                        | 0.30                       | 23/15                 | 2                    | 18      |
| ATF/1806     | DC-1.5                 | 6                        | 0.30                       | 23/15                 | 2                    | 18      |
| ATF/1807     | DC-1.5                 | 7                        | 0.30                       | 23/15                 | 2                    | 18      |
| ATF/1808     | DC-1.5                 | 8                        | 0.30                       | 23/15                 | 2                    | 18      |
| ATF/1809     | DC-1.5                 | 9                        | 0.40                       | 23/15                 | 2                    | 18      |
| ATF/1810     | DC-1.5                 | 10                       | 0.40                       | 23/15                 | 2                    | 18      |
| ATF/1812     | DC-1.5                 | 12                       | 0.40                       | 23/15                 | 2                    | 18      |
| ATF/1815     | DC-1.5                 | 15                       | 0.40                       | 23/15                 | 2                    | 18      |
| ATF/1820     | DC-1.5                 | 20                       | 0.40                       | 23/15                 | 2                    | 18      |
| ATF/1825     | DC-1.0                 | 25                       | 0.50                       | 23/15                 | 2                    | 18      |
| ATF/1830     | DC-1.0                 | 30                       | 0.50                       | 23/15                 | 2                    | 18      |
| ATF/1803/75* | DC-1.5                 | 3                        | 0.20                       | 23/15                 | 2                    | 18      |
| ATF/1806/75* | DC-1.5                 | 6                        | 0.30                       | 23/15                 | 2                    | 18      |
| ATF/1810/75* | DC-1.5                 | 10                       | 0.40                       | 23/15                 | 2                    | 18      |
| ATF/1815/75* | DC-1.5                 | 15                       | 0.40                       | 23/15                 | 2                    | 18      |
| ATF/1820/75* | DC-1.5                 | 20                       | 0.40                       | 23/15                 | 2                    | 18      |

**Notes for Fixed Attenuators:**

ATF/11XX series are drop-in replacements for PAT-X series, ATF/18XX series are drop-in replacements for AT-XX series

\*denotes a 75 ohm model.

Standard operating and Storage Temperature: -40 to +100C