

### AFT Series Miniature Amplifiers 0.1 to 18 GHz



#### Features

- Avanpak™ Package
- Removable Connectors (Miniature Series)
- 0.1 to 18.0 GHz (Octave/Multi-octave)
- Economically Priced (General Purpose)

#### AFT Avanpak Series

AFT amplifiers are general purpose amplifiers, suitable for a wide range of applications in commercial and military systems where low to medium gain "amplifier blocks" are required.

AFTs are compact and rugged and may be designed into commercial and military systems where stringent environments are encountered.

The Avanpak flatpak package is suitable for conventional chassis mounting using connectors and cables and, when the RF connectors are removed, is ideal for use in microstrip or stripline integration.

The AFT series is economically priced to facilitate its wide usage, and most models are readily available from stock from AVANTEK'S distributor network.

### AMT/AWT Series 0.5 to 20 GHz



#### Features

- High Performance, Wide Band
- 0.5 to 20 GHz
- Low Noise Figure
- Wide Dynamic Range

#### AMT/AWT Series

The AMT/AWT series provides premium performance over octave (AMT) and multi-octave (AWT) bands at 25°C. Temperature compensated amplifiers are specified over full military temperature ranges up to +100°C.

AMT/AWT series amplifiers are ideal for specification in performance driven applications in commercial and military systems. These amplifiers have a wide range of gain options, typically up to 45-50 dB, and are optimized for noise figure and dynamic range, consistent with the best technology available. A complete range of performance specifications is standard on these series and they are guaranteed over the specified temperature range.

The rugged I-series case is designed for chassis mounting and conventional connector/cable system integration.

The MA-series case is equivalent to the Avanpak flatpak package outline and is designed to withstand the same rugged environments as the I-series cases. They are suitable for conventional chassis mounting, using connectors and cables and, when the RF connectors are removed, are ideal for use in microstrip or stripline integration.

**AFT — Avanpak Series Amplifiers, Connectorized or Stripline Compatible**

**AWT — High Performance and Temperature Compensated Connectorized Amplifier Series**

**AFT Series — Silicon MMICs – Ultrawideband, Low Cost**

**Guaranteed Specifications @ 25°C Case Temperature**

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AFT-4001 | 0.1-4.0                             | 7                    | 8.0 Typ.          | 7.0/8.0                        | +6                                                      | 0.5                            | +17                                       | 2.0                                 | 2.0 | 50 Typ.                                                  | AS2       |
| AFT-4002 | 0.1-4.0                             | 14                   | 16.0 Typ.         | 7.0/8.0                        | +6                                                      | 0.9                            | +17                                       | 2.0                                 | 2.0 | 100 Typ.                                                 | AS2       |
| AFT-4003 | 0.1-4.0                             | 21                   | 24.0 Typ.         | 7.0/8.0                        | +6                                                      | 1.25                           | +17                                       | 2.0                                 | 2.0 | 150 Typ.                                                 | AS4       |

**AWT Series — GaAs FETs – Ultrawideband, High Performance**

**Guaranteed Specifications @ 25°C Case Temperature**

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AWT-4532 | 0.5-4.5                             | 18                   | 22                   | 3.5/3.8                        | +12                                                     | 0.75                           | +21                                       | 2.0                                 | 2.0 | 110                                                      | IS2       |
| AWT-4533 | 0.5-4.5                             | 27                   | 33                   | 3.5/3.8                        | +12                                                     | 1.0                            | +21                                       | 2.0                                 | 2.0 | 150                                                      | IS4       |
| AWT-4534 | 0.5-4.5                             | 36                   | 44                   | 3.5/3.8                        | +12                                                     | 1.0                            | +21                                       | 2.0                                 | 2.0 | 200                                                      | IS4       |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible**

**AWT—High Performance and Temperature Compensated Connectorized Amplifier Series**

**AFT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AFT-2031 | 0.5-2.0                             | 10                   | 10.5 Typ.         | 3.3/3.5                        | +11                                                     | 0.5                            | +21                                       | 2.0                                 | 2.0 | 60 Typ.                                                  | AS2       |
| AFT-2032 | 0.5-2.0                             | 20                   | 21.0 Typ.         | 3.5/3.7                        | +13                                                     | 0.7                            | +23                                       | 2.0                                 | 2.0 | 120 Typ.                                                 | AS2       |
| AFT-2033 | 0.5-2.0                             | 30                   | 32.0 Typ.         | 3.5/3.7                        | +13                                                     | 1.0                            | +23                                       | 2.0                                 | 2.0 | 180 Typ.                                                 | AS4       |
| AFT-2034 | 0.5-2.0                             | 40                   | 42.0 Typ.         | 3.5/3.7                        | +13                                                     | 1.5                            | +23                                       | 2.0                                 | 2.0 | 250 Typ.                                                 | AS4       |
| AFT-2061 | 0.5-2.0                             | 10                   | 10.5 Typ.         | 4.5/5.0                        | +20                                                     | 0.5                            | +29                                       | 2.0                                 | 2.0 | 180 Typ.                                                 | AS2       |
| AFT-2062 | 0.5-2.0                             | 20                   | 21.0 Typ.         | 3.5/3.7                        | +20                                                     | 0.7                            | +29                                       | 2.0                                 | 2.0 | 250 Typ.                                                 | AS2       |
| AFT-2063 | 0.5-2.0                             | 30                   | 32.0 Typ.         | 3.5/3.7                        | +20                                                     | 1.0                            | +29                                       | 2.0                                 | 2.0 | 300 Typ.                                                 | AS4       |
| AFT-2064 | 0.5-2.0                             | 40                   | 42.0 Typ.         | 3.5/3.7                        | +20                                                     | 1.5                            | +29                                       | 2.0                                 | 2.0 | 350 Typ.                                                 | AS4       |

**AWT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AWT-2071 | 0.5-2.0                             | 10                   | 13                   | 2.1/2.5                        | +11                                                     | 0.50                           | +20                                       | 2.0                                 | 2.0 | 75                                                       | IS2       |
| AWT-2072 | 0.5-2.0                             | 21                   | 26                   | 2.3/2.7                        | +11                                                     | 0.75                           | +20                                       | 2.0                                 | 2.0 | 150                                                      | IS2       |
| AWT-2073 | 0.5-2.0                             | 33                   | 40                   | 2.4/2.8                        | +20                                                     | 1.00                           | +29                                       | 2.0                                 | 2.0 | 260                                                      | IS4       |
| AWT-2032 | 0.5-2.0                             | 23                   | 27                   | 2.8/3.5                        | +13                                                     | 1.25                           | +21                                       | 2.0                                 | 2.0 | 100                                                      | IS2       |
| AWT-2033 | 0.5-2.0                             | 35                   | 40                   | 2.8/3.5                        | +13                                                     | 1.25                           | +21                                       | 2.0                                 | 2.0 | 160                                                      | IS4       |
| AWT-2034 | 0.5-2.0                             | 47                   | 53                   | 2.8/3.5                        | +13                                                     | 1.25                           | +21                                       | 2.0                                 | 2.0 | 200                                                      | IS4       |
| AWT-2053 | 0.5-2.0                             | 35                   | 40                   | 3.2/3.5                        | +20                                                     | 1.25                           | +28                                       | 2.0                                 | 2.0 | 260                                                      | IS4       |
| AWT-2054 | 0.5-2.0                             | 47                   | 53                   | 3.2/3.5                        | +20                                                     | 1.25                           | +28                                       | 2.0                                 | 2.0 | 310                                                      | IS4       |

**AWT Series—Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|          |         |    |    |         |     |      |     |     |     |     |     |
|----------|---------|----|----|---------|-----|------|-----|-----|-----|-----|-----|
| AWT-2082 | 0.5-2.0 | 19 | 23 | 3.6/4.0 | +13 | 1.50 | +21 | 2.0 | 2.0 | 170 | IS4 |
| AWT-2083 | 0.5-2.0 | 30 | 34 | 3.4/3.8 | +13 | 1.75 | +21 | 2.0 | 2.0 | 220 | IS4 |
| AWT-2084 | 0.5-2.0 | 41 | 46 | 3.4/3.8 | +13 | 2.00 | +21 | 2.0 | 2.0 | 260 | IS6 |
| AWT-2042 | 0.5-2.0 | 19 | 23 | 4.5/4.7 | +13 | 1.50 | +21 | 2.0 | 2.0 | 150 | IS4 |
| AWT-2043 | 0.5-2.0 | 30 | 34 | 4.2/4.5 | +13 | 1.75 | +21 | 2.0 | 2.0 | 200 | IS4 |
| AWT-2044 | 0.5-2.0 | 41 | 46 | 4.2/4.5 | +13 | 2.00 | +21 | 2.0 | 2.0 | 250 | IS6 |
| AWT-2063 | 0.5-2.0 | 30 | 34 | 4.2/4.5 | +20 | 1.75 | +28 | 2.0 | 2.0 | 275 | IS4 |
| AWT-2064 | 0.5-2.0 | 41 | 46 | 4.2/4.5 | +20 | 2.00 | +28 | 2.0 | 2.0 | 325 | IS6 |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible**  
**AMT—High Performance and Temperature Compensated Connectorized Amplifier Series**

### AFT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------------------|-----------|
| AFT-4231 | 2-4                                 | 11.5                 | 12.0 Typ.         | 3.6/4.0                        | +13                                                     | 1.0                            | +23                                       | 2.0 2.0                          | 75 Typ.                                                  | AS2       |
| AFT-4232 | 2-4                                 | 23.0                 | 24.0 Typ.         | 3.6/4.0                        | +13                                                     | 1.0                            | +23                                       | 2.0 2.0                          | 150 Typ.                                                 | AS2       |
| AFT-4233 | 2-4                                 | 35.0                 | 36.0 Typ.         | 3.6/4.0                        | +13                                                     | 1.0                            | +23                                       | 2.0 2.0                          | 225 Typ.                                                 | AS4       |
| AFT-4234 | 2-4                                 | 47.0                 | 48.0 Typ.         | 3.6/4.0                        | +13                                                     | 1.5                            | +23                                       | 2.0 2.0                          | 300 Typ.                                                 | AS4       |
| AFT-4261 | 2-4                                 | 10.0                 | 10.5 Typ.         | 4.7/5.0                        | +20                                                     | 1.0                            | +29                                       | 2.0 2.0                          | 175 Typ.                                                 | AS2       |
| AFT-4262 | 2-4                                 | 21.5                 | 22.5 Typ.         | 3.6/4.0                        | +20                                                     | 1.0                            | +29                                       | 2.0 2.0                          | 225 Typ.                                                 | AS2       |
| AFT-4263 | 2-4                                 | 34.0                 | 35.0 Typ.         | 3.6/4.0                        | +20                                                     | 1.0                            | +29                                       | 2.0 2.0                          | 275 Typ.                                                 | AS4       |
| AFT-4264 | 2-4                                 | 44.5                 | 46.0 Typ.         | 3.6/4.0                        | +20                                                     | 1.5                            | +29                                       | 2.0 2.0                          | 325 Typ.                                                 | AS4       |

### AMT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model               | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|---------------------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------------------|-----------|
| <b>NEW</b> AMT-4211 | 2-4                                 | 13.0                 | 16.0                 | 1.2/1.4                        | +9                                                      | 0.5                            | +17                                       | 2.0 2.0                          | 65                                                       | IS2       |
| <b>NEW</b> AMT-4212 | 2-4                                 | 27.0                 | 31.0                 | 1.2/1.4                        | +13                                                     | 0.75                           | +21                                       | 2.0 2.0                          | 115                                                      | IS2       |
| <b>NEW</b> AMT-4213 | 2-4                                 | 40.0                 | 45.0                 | 1.2/1.4                        | +20                                                     | 1.0                            | +28                                       | 2.0 2.0                          | 225                                                      | IS4       |
| AMT-4032            | 2-4                                 | 26.0                 | 30.0                 | 2.0/2.2                        | +12                                                     | 1.0                            | +20                                       | 2.0 2.0                          | 125                                                      | IS2       |
| AMT-4033            | 2-4                                 | 39.0                 | 44.0                 | 2.0/2.2                        | +20                                                     | 1.0                            | +28                                       | 2.0 2.0                          | 225                                                      | IS4       |
| AMT-4051            | 2-4                                 | 12.5                 | 15.5                 | 3.3/3.8                        | +20                                                     | 1.0                            | +28                                       | 2.0 2.0                          | 120                                                      | IS2       |
| AMT-4052            | 2-4                                 | 26.0                 | 30.0                 | 2.3/2.7                        | +20                                                     | 1.0                            | +28                                       | 2.0 2.0                          | 175                                                      | IS2       |
| AMT-4053            | 2-4                                 | 39.0                 | 44.0                 | 2.3/2.7                        | +20                                                     | 1.0                            | +28                                       | 2.0 2.0                          | 225                                                      | IS4       |
| AMT-4054            | 2-4                                 | 52.0                 | 58.0                 | 2.3/2.7                        | +20                                                     | 1.0                            | +28                                       | 2.0 2.0                          | 280                                                      | IS4       |

### AMT Series — Temperature Compensated

Guaranteed Specifications @ -54° to +100°C Case Temperature

|          |     |    |    |     |     |      |     |         |     |     |
|----------|-----|----|----|-----|-----|------|-----|---------|-----|-----|
| AMT-4082 | 2-4 | 22 | 26 | 3.2 | +15 | 1.50 | +23 | 2.0 2.0 | 225 | IS4 |
| AMT-4083 | 2-4 | 34 | 38 | 2.9 | +20 | 1.75 | +28 | 2.0 2.0 | 330 | IS4 |
| AMT-4084 | 2-4 | 46 | 51 | 2.9 | +20 | 2.00 | +28 | 2.0 2.0 | 380 | IS6 |
| AMT-4062 | 2-4 | 22 | 26 | 5.0 | +20 | 1.50 | +28 | 2.0 2.0 | 280 | IS4 |
| AMT-4063 | 2-4 | 34 | 38 | 3.8 | +20 | 1.75 | +28 | 2.0 2.0 | 330 | IS4 |
| AMT-4064 | 2-4 | 46 | 51 | 3.8 | +20 | 2.00 | +28 | 2.0 2.0 | 380 | IS6 |

#### Note

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible

AWT—High Performance and Temperature Compensated Connectorized Amplifier Series

### AFT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| AFT-6231 | 2-6                                 | 8.5                  | 9.0 Typ.          | 3.3/3.7                        | +10                                                     | 0.7                            | +20                                       | 2.0                              | 2.0 | 60 Typ.                                                  | AC2       |
| AFT-6232 | 2-6                                 | 18.0                 | 19.0 Typ.         | 3.6/4.0                        | +12                                                     | 1.0                            | +22                                       | 2.0                              | 2.0 | 125 Typ.                                                 | AC2       |
| AFT-6233 | 2-6                                 | 27.5                 | 28.5 Typ.         | 3.6/4.0                        | +12                                                     | 1.0                            | +22                                       | 2.0                              | 2.0 | 200 Typ.                                                 | AC4       |
| AFT-6234 | 2-6                                 | 37.0                 | 38.5 Typ.         | 3.6/4.0                        | +12                                                     | 1.5                            | +22                                       | 2.0                              | 2.0 | 275 Typ.                                                 | AC4       |
| AFT-6261 | 2-6                                 | 7.0                  | 8.0 Typ.          | 5.5/6.0                        | +20                                                     | 0.7                            | +29                                       | 2.0                              | 2.0 | 175 Typ.                                                 | AC2       |
| AFT-6262 | 2-6                                 | 15.0                 | 16.0 Typ.         | 6.0/6.5                        | +20                                                     | 1.0                            | +29                                       | 2.0                              | 2.0 | 300 Typ.                                                 | AC2       |
| AFT-6263 | 2-6                                 | 24.5                 | 26.0 Typ.         | 5.0/5.5                        | +20                                                     | 1.0                            | +29                                       | 2.0                              | 2.0 | 350 Typ.                                                 | AC4       |
| AFT-6264 | 2-6                                 | 33.5                 | 35.0 Typ.         | 4.5/5.0                        | +20                                                     | 1.5                            | +29                                       | 2.0                              | 2.0 | 400 Typ.                                                 | AC4       |

### AWT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| AWT-6032 | 2-6                                 | 19                   | 23                   | 3.3/3.5                        | +15                                                     | 1.00                           | +23                                       | 2.0                              | 2.0 | 130                                                      | IC2       |
| AWT-6033 | 2-6                                 | 28                   | 33                   | 3.3/3.5                        | +15                                                     | 1.00                           | +23                                       | 2.0                              | 2.0 | 190                                                      | IC4       |
| AWT-6034 | 2-6                                 | 38                   | 44                   | 3.3/3.5                        | +15                                                     | 1.25                           | +23                                       | 2.0                              | 2.0 | 250                                                      | IC4       |
| AWT-6035 | 2-6                                 | 48                   | 55                   | 3.3/3.5                        | +15                                                     | 1.50                           | +23                                       | 2.0                              | 2.0 | 310                                                      | IC6       |
| AWT-6052 | 2-6                                 | 18                   | 23                   | 5.0/6.0                        | +23                                                     | 1.25                           | +31                                       | 2.0                              | 2.0 | 300                                                      | IC2       |
| AWT-6053 | 2-6                                 | 27                   | 33                   | 3.6/4.0                        | +23                                                     | 1.25                           | +31                                       | 2.0                              | 2.0 | 350                                                      | IC4       |
| AWT-6054 | 2-6                                 | 36                   | 43                   | 3.2/3.5                        | +23                                                     | 1.50                           | +31                                       | 2.0                              | 2.0 | 400                                                      | IC4       |
| AWT-6055 | 2-6                                 | 46                   | 54                   | 3.2/3.5                        | +23                                                     | 2.00                           | +31                                       | 2.0                              | 2.0 | 460                                                      | IC6       |

### AWT Series — Temperature Compensated

Guaranteed Specifications @ -54° to +100°C Case Temperature

|          |     |    |    |     |     |      |     |     |     |     |     |
|----------|-----|----|----|-----|-----|------|-----|-----|-----|-----|-----|
| AWT-6043 | 2-6 | 24 | 28 | 4.8 | +15 | 1.75 | +23 | 2.0 | 2.0 | 230 | IC4 |
| AWT-6044 | 2-6 | 31 | 36 | 4.5 | +15 | 2.00 | +23 | 2.0 | 2.0 | 280 | IC6 |
| AWT-6045 | 2-6 | 40 | 45 | 4.5 | +15 | 2.25 | +23 | 2.0 | 2.0 | 340 | IC6 |
| AWT-6063 | 2-6 | 23 | 28 | 6.5 | +23 | 2.00 | +31 | 2.0 | 2.0 | 420 | IC4 |
| AWT-6064 | 2-6 | 31 | 37 | 5.0 | +23 | 2.25 | +31 | 2.0 | 2.0 | 460 | IC6 |
| AWT-6065 | 2-6 | 38 | 45 | 4.5 | +23 | 2.50 | +31 | 2.0 | 2.0 | 540 | IC6 |

#### Note

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible**  
**AWT—High Performance and Temperature Compensated Connectorized Amplifier Series**

**AFT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| AFT-8231 | 2-8                                 | 6.5                  | 7.0 Typ.          | 4.3/4.8                        | +12                                                     | 0.7                            | +22                                       | 2.0                              | 2.0 | 100 Typ.                                                 | AC2       |
| AFT-8232 | 2-8                                 | 14.0                 | 14.5 Typ.         | 4.5/5.0                        | +12                                                     | 1.0                            | +22                                       | 2.0                              | 2.0 | 175 Typ.                                                 | AC2       |
| AFT-8233 | 2-8                                 | 21.0                 | 22.0 Typ.         | 4.5/5.0                        | +12                                                     | 1.0                            | +22                                       | 2.0                              | 2.0 | 235 Typ.                                                 | AC4       |
| AFT-8234 | 2-8                                 | 28.0                 | 30.0 Typ.         | 4.5/5.0                        | +12                                                     | 1.5                            | +22                                       | 2.0                              | 2.0 | 300 Typ.                                                 | AC4       |
| AFT-8261 | 2-8                                 | 7.5                  | 8.0 Typ.          | 5.5/6.0                        | +17                                                     | 0.7                            | +26                                       | 2.0                              | 2.0 | 150 Typ.                                                 | AC2       |
| AFT-8262 | 2-8                                 | 16.5                 | 17.0 Typ.         | 5.5/6.0                        | +17                                                     | 1.0                            | +26                                       | 2.0                              | 2.0 | 300 Typ.                                                 | AC2       |
| AFT-8263 | 2-8                                 | 23.0                 | 24.0 Typ.         | 4.7/5.2                        | +17                                                     | 1.0                            | +26                                       | 2.0                              | 2.0 | 375 Typ.                                                 | AC4       |
| AFT-8264 | 2-8                                 | 30.0                 | 32.0 Typ.         | 4.7/5.2                        | +17                                                     | 1.5                            | +26                                       | 2.0                              | 2.0 | 450 Typ.                                                 | AC4       |

**AWT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response<br>Minimum | Gain (GHz)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (dBm)<br>Maximum | Typical Third Order Intercept (±dB)<br>(dBm) | VSWR (50 ohms)<br>Point In Out |     | Input Power Current +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------|-------------------------------|-----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|----------------------------------------------|--------------------------------|-----|--------------------------------------------------------|-----------|
| AWT-8032 | 2-8                           | 16                    | 21                   | 4.0/4.2                        | +15                                                     | 1.00                           | +23                                          | 2.0                            | 2.0 | 165                                                    | IC2       |
| AWT-8033 | 2-8                           | 24                    | 31                   | 3.8/4.0                        | +15                                                     | 1.25                           | +23                                          | 2.0                            | 2.0 | 235                                                    | IC4       |
| AWT-8034 | 2-8                           | 33                    | 41                   | 3.8/4.0                        | +15                                                     | 1.50                           | +23                                          | 2.0                            | 2.0 | 320                                                    | IC4       |
| AWT-8035 | 2-8                           | 41                    | 50                   | 3.8/4.0                        | +15                                                     | 1.75                           | +23                                          | 2.0                            | 2.0 | 400                                                    | IC6       |
| AWT-8052 | 2-8                           | 15                    | 20                   | 5.0/6.0                        | +20                                                     | 1.00                           | +28                                          | 2.0                            | 2.0 | 275                                                    | IC2       |
| AWT-8053 | 2-8                           | 23                    | 30                   | 3.9/4.5                        | +20                                                     | 1.25                           | +28                                          | 2.0                            | 2.0 | 350                                                    | IC4       |
| AWT-8054 | 2-8                           | 32                    | 40                   | 3.8/4.0                        | +20                                                     | 1.50                           | +28                                          | 2.0                            | 2.0 | 425                                                    | IC4       |
| AWT-8055 | 2-8                           | 40                    | 49                   | 3.8/4.0                        | +20                                                     | 1.75                           | +28                                          | 2.0                            | 2.0 | 510                                                    | IC6       |

**AWT Series — Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|          |     |      |      |     |     |      |     |     |     |     |     |
|----------|-----|------|------|-----|-----|------|-----|-----|-----|-----|-----|
| AWT-8043 | 2-8 | 18.5 | 24.5 | 5.8 | +15 | 1.75 | +23 | 2.0 | 2.0 | 270 | IC4 |
| AWT-8044 | 2-8 | 26.5 | 32.5 | 5.5 | +15 | 2.00 | +23 | 2.0 | 2.0 | 340 | IC6 |
| AWT-8045 | 2-8 | 34.0 | 41.0 | 5.3 | +15 | 2.25 | +23 | 2.0 | 2.0 | 420 | IC6 |
| AWT-8063 | 2-8 | 18.0 | 24.0 | 7.5 | +20 | 2.00 | +28 | 2.0 | 2.0 | 400 | IC4 |
| AWT-8064 | 2-8 | 25.0 | 32.0 | 5.7 | +20 | 2.25 | +28 | 2.0 | 2.0 | 470 | IC6 |
| AWT-8065 | 2-8 | 32.5 | 41.5 | 5.5 | +20 | 2.50 | +28 | 2.0 | 2.0 | 550 | IC6 |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible**

**AMT—High Performance and Temperature Compensated Connectorized Amplifier Series**

**AFT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------------------|-----------|
| AFT-8431 | 4-8                                 | 8.5                  | 9.0 Typ.          | 4.0/4.5                        | +10                                                     | 1.0                            | +20                                       | 2.0 2.0                          | 75 Typ.                                                  | AC2       |
| AFT-8432 | 4-8                                 | 17.0                 | 18.0 Typ.         | 4.0/4.5                        | +10                                                     | 1.0                            | +20                                       | 2.0 2.0                          | 125 Typ.                                                 | AC2       |
| AFT-8433 | 4-8                                 | 28.0                 | 29.0 Typ.         | 3.5/4.0                        | +12                                                     | 1.0                            | +22                                       | 2.0 2.0                          | 200 Typ.                                                 | AC4       |
| AFT-8434 | 4-8                                 | 37.5                 | 39.0 Typ.         | 3.5/4.0                        | +12                                                     | 1.5                            | +22                                       | 2.0 2.0                          | 250 Typ.                                                 | AC4       |
| AFT-8461 | 4-8                                 | 6.5                  | 7.0 Typ.          | 7.5/8.0                        | +20                                                     | 0.7                            | +29                                       | 2.0 2.0                          | 125 Typ.                                                 | AC2       |
| AFT-8462 | 4-8                                 | 13.0                 | 14.0 Typ.         | 7.5/8.0                        | +20                                                     | 1.0                            | +29                                       | 2.0 2.0                          | 250 Typ.                                                 | AC2       |
| AFT-8463 | 4-8                                 | 24.0                 | 25.0 Typ.         | 5.0/5.5                        | +20                                                     | 1.0                            | +29                                       | 2.0 2.0                          | 300 Typ.                                                 | AC4       |
| AFT-8464 | 4-8                                 | 32.0                 | 34.0 Typ.         | 4.0/4.5                        | +20                                                     | 1.5                            | +29                                       | 2.0 2.0                          | 350 Typ.                                                 | AC4       |

**AMT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model    | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------------------|-----------|
| AMT-8071 | 4-8                                 | 10                   | 12                   | 2.1/2.5                        | +6                                                      | 0.50                           | +15                                       | 2.0 2.0                          | 50                                                       | IC2       |
| AMT-8072 | 4-8                                 | 20                   | 24                   | 2.3/2.7                        | +7                                                      | 1.00                           | +15                                       | 2.0 2.0                          | 100                                                      | IC2       |
| AMT-8073 | 4-8                                 | 30                   | 35                   | 2.3/2.7                        | +13                                                     | 1.50                           | +21                                       | 2.0 2.0                          | 175                                                      | IC4       |
| AMT-8074 | 4-8                                 | 39                   | 45                   | 2.3/2.7                        | +18                                                     | 2.00                           | +26                                       | 2.0 2.0                          | 275                                                      | IC4       |
| AMT-8032 | 4-8                                 | 19                   | 23                   | 3.3/3.7                        | +15                                                     | 1.00                           | +23                                       | 2.0 2.0                          | 125                                                      | IC2       |
| AMT-8033 | 4-8                                 | 29                   | 34                   | 3.0/3.5                        | +15                                                     | 1.00                           | +23                                       | 2.0 2.0                          | 180                                                      | IC4       |
| AMT-8034 | 4-8                                 | 38                   | 45                   | 3.0/3.5                        | +15                                                     | 1.25                           | +23                                       | 2.0 2.0                          | 220                                                      | IC4       |
| AMT-8035 | 4-8                                 | 48                   | 56                   | 3.0/3.5                        | +15                                                     | 1.50                           | +23                                       | 2.0 2.0                          | 275                                                      | IC6       |
| AMT-8052 | 4-8                                 | 18                   | 22                   | 4.0/5.2                        | +20                                                     | 1.00                           | +28                                       | 2.0 2.0                          | 200                                                      | IC2       |
| AMT-8053 | 4-8                                 | 27                   | 32                   | 3.2/3.8                        | +20                                                     | 1.00                           | +28                                       | 2.0 2.0                          | 250                                                      | IC4       |
| AMT-8054 | 4-8                                 | 37                   | 44                   | 3.0/3.5                        | +20                                                     | 1.25                           | +28                                       | 2.0 2.0                          | 300                                                      | IC4       |
| AMT-8055 | 4-8                                 | 46                   | 54                   | 3.0/3.5                        | +20                                                     | 1.50                           | +28                                       | 2.0 2.0                          | 350                                                      | IC6       |

**AMT Series — Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|          |     |      |      |     |     |      |     |         |     |     |
|----------|-----|------|------|-----|-----|------|-----|---------|-----|-----|
| AMT-8083 | 4-8 | 25.0 | 29   | 4.2 | +15 | 1.25 | +23 | 2.0 2.0 | 230 | IC4 |
| AMT-8084 | 4-8 | 34.0 | 39.5 | 3.8 | +15 | 1.50 | +23 | 2.0 2.0 | 275 | IC6 |
| AMT-8085 | 4-8 | 43.0 | 50   | 3.8 | +15 | 1.75 | +23 | 2.0 2.0 | 325 | IC6 |
| AMT-8043 | 4-8 | 24.0 | 28   | 5.0 | +15 | 1.25 | +23 | 2.0 2.0 | 225 | IC4 |
| AMT-8044 | 4-8 | 31.5 | 37   | 4.5 | +15 | 1.50 | +23 | 2.0 2.0 | 250 | IC6 |
| AMT-8045 | 4-8 | 40.0 | 47   | 4.5 | +15 | 1.75 | +23 | 2.0 2.0 | 300 | IC6 |
| AMT-8063 | 4-8 | 22.0 | 26   | 7.0 | +20 | 1.50 | +28 | 2.0 2.0 | 350 | IC4 |
| AMT-8064 | 4-8 | 29.0 | 35   | 5.2 | +20 | 1.75 | +28 | 2.0 2.0 | 400 | IC6 |
| AMT-8065 | 4-8 | 37.0 | 44   | 5.0 | +20 | 2.00 | +28 | 2.0 2.0 | 450 | IC6 |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AWT —High Performance and Temperature Compensated Connectorized Amplifier Series**

**AWT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|-----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| AWT-11471 | 4.0-11.0                            | 8                    | 11                   | 2.1/2.5                        | +7                                                      | 0.75                           | +18                                       | 2.0                              | 2.0 | 65                                                       | IX2       |
| AWT-11472 | 4.0-11.0                            | 17                   | 21                   | 2.3/2.7                        | +7                                                      | 1.00                           | +18                                       | 2.0                              | 2.0 | 130                                                      | IX2       |
| AWT-11473 | 4.0-11.0                            | 26                   | 31                   | 2.3/2.7                        | +13                                                     | 1.25                           | +23                                       | 2.0                              | 2.0 | 200                                                      | IX4       |
| AWT-11474 | 4.0-11.0                            | 34                   | 41                   | 2.3/2.7                        | +20                                                     | 1.50                           | +28                                       | 2.0                              | 2.0 | 380                                                      | IX4       |
| AWT-10532 | 4.5-10.5                            | 17                   | 21                   | 4.3/4.5                        | +15                                                     | 1.00                           | +23                                       | 2.0                              | 2.0 | 120                                                      | IC2       |
| AWT-10533 | 4.5-10.5                            | 26                   | 31                   | 4.2/4.5                        | +15                                                     | 1.00                           | +23                                       | 2.0                              | 2.0 | 160                                                      | IC4       |
| AWT-10534 | 4.5-10.5                            | 34                   | 41                   | 4.2/4.5                        | +15                                                     | 1.25                           | +23                                       | 2.0                              | 2.0 | 210                                                      | IC4       |
| AWT-10535 | 4.5-10.5                            | 43                   | 51                   | 4.2/4.5                        | +15                                                     | 1.50                           | +23                                       | 2.0                              | 2.0 | 250                                                      | IC6       |
| AWT-10552 | 4.5-10.5                            | 15                   | 20                   | 5.5/6.0                        | +20                                                     | 1.00                           | +28                                       | 2.0                              | 2.0 | 275                                                      | IC2       |
| AWT-10553 | 4.5-10.5                            | 24                   | 30                   | 4.8/5.0                        | +20                                                     | 1.25                           | +28                                       | 2.0                              | 2.0 | 320                                                      | IC4       |
| AWT-10554 | 4.5-10.5                            | 32                   | 40                   | 4.2/4.5                        | +20                                                     | 1.50                           | +28                                       | 2.0                              | 2.0 | 360                                                      | IC4       |
| AWT-10555 | 4.5-10.5                            | 41                   | 50                   | 4.2/4.5                        | +20                                                     | 1.75                           | +28                                       | 2.0                              | 2.0 | 400                                                      | IC6       |

**AWT Series — Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|           |          |      |    |     |     |      |     |     |     |     |     |
|-----------|----------|------|----|-----|-----|------|-----|-----|-----|-----|-----|
| AWT-11484 | 4.0-11.0 | 25.0 | 31 | 4.0 | +7  | 2.00 | +15 | 2.0 | 2.0 | 300 | IX6 |
| AWT-11485 | 4.0-11.0 | 32.0 | 39 | 4.0 | +13 | 2.25 | +21 | 2.0 | 2.0 | 365 | IX6 |
| AWT-10543 | 4.5-10.5 | 21.0 | 26 | 6.0 | +15 | 1.75 | +23 | 2.0 | 2.0 | 230 | IC4 |
| AWT-10544 | 4.5-10.5 | 28.0 | 34 | 6.0 | +15 | 2.00 | +23 | 2.0 | 2.0 | 250 | IC6 |
| AWT-10545 | 4.5-10.5 | 35.5 | 42 | 6.0 | +15 | 2.25 | +23 | 2.0 | 2.0 | 290 | IC6 |
| AWT-10563 | 4.5-10.5 | 19.0 | 24 | 7.0 | +20 | 1.75 | +28 | 2.0 | 2.0 | 375 | IC4 |
| AWT-10564 | 4.5-10.5 | 27.0 | 34 | 6.5 | +20 | 2.00 | +28 | 2.0 | 2.0 | 450 | IC6 |
| AWT-10565 | 4.5-10.5 | 33.0 | 41 | 6.0 | +20 | 2.25 | +28 | 2.0 | 2.0 | 475 | IC6 |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible

AMT—High Performance and Temperature Compensated Connectorized Amplifier Series

### AFT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|-----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AFT-12631 | 6-12                                | 7.5                  | 8.0 Typ.          | 6.0/6.5                        | +10                                                     | 0.7                            | +20                                       | 2.0                                 | 2.0 | 75 Typ.                                                  | AX2       |
| AFT-12632 | 6-12                                | 15.0                 | 16.0 Typ.         | 5.7/6.0                        | +10                                                     | 1.0                            | +20                                       | 2.0                                 | 2.0 | 150 Typ.                                                 | AX2       |
| AFT-12633 | 6-12                                | 22.5                 | 24.0 Typ.         | 4.2/4.5                        | +14                                                     | 1.0                            | +24                                       | 2.0                                 | 2.0 | 175 Typ.                                                 | AX4       |
| AFT-12634 | 6-12                                | 30.5                 | 32.0 Typ.         | 4.2/4.5                        | +14                                                     | 1.5                            | +24                                       | 2.0                                 | 2.0 | 225 Typ.                                                 | AX4       |
| AFT-12635 | 6-12                                | 38.0                 | 40.0 Typ.         | 4.2/4.5                        | +14                                                     | 2.0                            | +24                                       | 2.0                                 | 2.0 | 275 Typ.                                                 | AX6       |
| AFT-12661 | 6-12                                | 5.0                  | 5.5 Typ.          | 7.5/8.0                        | +20                                                     | 0.7                            | +29                                       | 2.0                                 | 2.0 | 175 Typ.                                                 | AX2       |
| AFT-12662 | 6-12                                | 13.0                 | 14.0 Typ.         | 6.0/6.5                        | +20                                                     | 1.0                            | +29                                       | 2.0                                 | 2.0 | 250 Typ.                                                 | AX2       |
| AFT-12663 | 6-12                                | 21.0                 | 22.0 Typ.         | 5.0/5.5                        | +20                                                     | 1.0                            | +29                                       | 2.0                                 | 2.0 | 300 Typ.                                                 | AX4       |
| AFT-12664 | 6-12                                | 28.0                 | 29.0 Typ.         | 4.5/5.0                        | +20                                                     | 1.5                            | +29                                       | 2.0                                 | 2.0 | 350 Typ.                                                 | AX4       |
| AFT-12665 | 6-12                                | 36.5                 | 38.0 Typ.         | 4.5/5.0                        | +20                                                     | 2.0                            | +29                                       | 2.0                                 | 2.0 | 400 Typ.                                                 | AX6       |

### AMT Series — Temperature Compensated

Guaranteed Specifications @ -54° to +100°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Maximum | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|-----------|-------------------------------------|----------------------|----------------------|------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AMT-12064 | 6-12                                | 21                   | 29                   | 7.7                          | +20                                                     | 1.5                            | +28                                       | 2.0                                 | 2.0 | 520                                                      | IX6       |
| AMT-12065 | 6-12                                | 32                   | 40                   | 5.0                          | +20                                                     | 1.5                            | +28                                       | 2.0                                 | 2.0 | 460                                                      | IX6       |
| AMT-12066 | 6-12                                | 37                   | 45                   | 4.5                          | +20                                                     | 2.0                            | +28                                       | 2.0                                 | 2.0 | 520                                                      | IX8       |

#### Note

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AMT —High Performance and Temperature Compensated Connectorized Amplifier Series**

**AMT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model                | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------------------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|-------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| <b>NEW</b> AMT-12711 | 7-12.4                              | 10                   | 13                   | 2.2/2.3                        | +9                                                      | 0.5                           | +17                                       | 2.0                                 | 2.0 | 85                                                       | IX2       |
| <b>NEW</b> AMT-12713 | 7-12.4                              | 30                   | 35                   | 2.2/2.3                        | +15                                                     | 1.0                           | +23                                       | 2.0                                 | 2.0 | 225                                                      | IX4       |
| <b>NEW</b> AMT-12714 | 7-12.4                              | 37                   | 44                   | 2.2/2.3                        | +20                                                     | 1.5                           | +28                                       | 2.0                                 | 2.0 | 400                                                      | IX4       |
| AMT-12432            | 7-12.4                              | 17                   | 21                   | 3.9/4.5                        | +15                                                     | 1.0                           | +23                                       | 2.0                                 | 2.0 | 140                                                      | IX2       |
| AMT-12433            | 7-12.4                              | 25                   | 31                   | 3.9/4.5                        | +15                                                     | 1.0                           | +23                                       | 2.0                                 | 2.0 | 210                                                      | IX4       |
| AMT-12434            | 7-12.4                              | 31                   | 39                   | 3.7/4.0                        | +15                                                     | 1.0                           | +23                                       | 2.0                                 | 2.0 | 230                                                      | IX4       |
| AMT-12435            | 7-12.4                              | 38                   | 45                   | 3.7/4.0                        | +15                                                     | 1.5                           | +23                                       | 2.0                                 | 2.0 | 290                                                      | IX6       |
| AMT-12436            | 7-12.4                              | 47                   | 55                   | 3.7/4.0                        | +15                                                     | 1.5                           | +23                                       | 2.0                                 | 2.0 | 350                                                      | IX6       |
| AMT-12453            | 7-12.4                              | 23                   | 29                   | 4.5/5.0                        | +20                                                     | 1.0                           | +28                                       | 2.0                                 | 2.0 | 330                                                      | IX4       |
| AMT-12454            | 7-12.4                              | 32                   | 40                   | 3.9/4.5                        | +20                                                     | 1.0                           | +28                                       | 2.0                                 | 2.0 | 390                                                      | IX4       |
| AMT-12455            | 7-12.4                              | 36                   | 44                   | 3.8/4.0                        | +20                                                     | 1.5                           | +28                                       | 2.0                                 | 2.0 | 400                                                      | IX6       |
| AMT-12456            | 7-12.4                              | 45                   | 53                   | 3.8/4.0                        | +20                                                     | 1.5                           | +28                                       | 2.0                                 | 2.0 | 450                                                      | IX6       |

**AMT Series — Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|           |        |    |    |       |     |     |     |     |     |     |     |
|-----------|--------|----|----|-------|-----|-----|-----|-----|-----|-----|-----|
| AMT-12483 | 7-12.4 | 18 | 24 | —/4.9 | +13 | 1.0 | +21 | 2.0 | 2.0 | 230 | IX4 |
| AMT-12484 | 7-12.4 | 25 | 33 | —/5.2 | +15 | 1.5 | +23 | 2.0 | 2.0 | 300 | IX6 |
| AMT-12485 | 7-12.4 | 32 | 41 | —/4.7 | +15 | 1.5 | +23 | 2.0 | 2.0 | 330 | IX6 |
| AMT-12486 | 7-12.4 | 38 | 47 | —/4.4 | +15 | 2.0 | +23 | 2.0 | 2.0 | 370 | IX8 |
| AMT-12487 | 7-12.4 | 45 | 55 | —/4.2 | +15 | 2.5 | +23 | 2.0 | 2.0 | 420 | IX8 |
| AMT-12443 | 7-12.4 | 20 | 26 | —/5.7 | +13 | 1.0 | +21 | 2.0 | 2.0 | 230 | IX4 |
| AMT-12444 | 7-12.4 | 27 | 35 | —/6.0 | +15 | 1.5 | +23 | 2.0 | 2.0 | 300 | IX6 |
| AMT-12445 | 7-12.4 | 31 | 40 | —/5.5 | +15 | 1.5 | +23 | 2.0 | 2.0 | 320 | IX6 |
| AMT-12446 | 7-12.4 | 36 | 45 | —/5.2 | +15 | 2.0 | +23 | 2.0 | 2.0 | 350 | IX8 |
| AMT-12447 | 7-12.4 | 44 | 54 | —/5.0 | +15 | 2.5 | +23 | 2.0 | 2.0 | 410 | IX8 |
| AMT-12464 | 7-12.4 | 21 | 29 | —/6.7 | +20 | 1.5 | +28 | 2.0 | 2.0 | 420 | IX6 |
| AMT-12465 | 7-12.4 | 30 | 38 | —/6.0 | +20 | 1.5 | +28 | 2.0 | 2.0 | 460 | IX6 |
| AMT-12466 | 7-12.4 | 36 | 45 | —/5.6 | +20 | 2.0 | +28 | 2.0 | 2.0 | 640 | IX8 |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AWT —High Performance and Temperature Compensated Connectorized Amplifier Series**

**AWT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|-----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| AWT-13531 | 5-13                                | 6                    | 9                    | 2.6/3.2                        | +10                                                     | 0.75                           | +18                                       | 2.0                              | 2.0 | 65                                                       | IX2       |
| AWT-13532 | 5-13                                | 13                   | 17                   | 3.1/3.5                        | +10                                                     | 1.0                            | +18                                       | 2.0                              | 2.0 | 130                                                      | IX2       |
| AWT-13533 | 5-13                                | 20                   | 26                   | 3.1/3.5                        | +15                                                     | 1.25                           | +23                                       | 2.0                              | 2.0 | 185                                                      | IX4       |
| AWT-13534 | 5-13                                | 28                   | 36                   | 3.1/3.5                        | +15                                                     | 1.5                            | +23                                       | 2.0                              | 2.0 | 245                                                      | IX4       |
| AWT-13032 | 5-13                                | 17                   | 21                   | 4.3/4.5                        | +15                                                     | 1.0                            | +23                                       | 2.0                              | 2.0 | 140                                                      | IX2       |
| AWT-13033 | 5-13                                | 25                   | 30                   | 4.3/4.5                        | +15                                                     | 1.0                            | +23                                       | 2.0                              | 2.0 | 200                                                      | IX4       |
| AWT-13034 | 5-13                                | 33                   | 40                   | 4.3/4.5                        | +15                                                     | 1.0                            | +23                                       | 2.0                              | 2.0 | 260                                                      | IX4       |
| AWT-13035 | 5-13                                | 41                   | 49                   | 4.3/4.5                        | +15                                                     | 1.5                            | +23                                       | 2.0                              | 2.0 | 320                                                      | IX6       |
| AWT-13036 | 5-13                                | 49                   | 57                   | 4.3/4.5                        | +15                                                     | 1.5                            | +23                                       | 2.0                              | 2.0 | 380                                                      | IX6       |

**AWT Series — Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|           |      |    |    |       |     |     |     |     |     |     |     |
|-----------|------|----|----|-------|-----|-----|-----|-----|-----|-----|-----|
| AWT-13083 | 5-13 | 20 | 25 | —/5.2 | +13 | 1.5 | +21 | 2.0 | 2.0 | 220 | IX4 |
| AWT-13084 | 5-13 | 26 | 32 | —/5.0 | +13 | 1.5 | +21 | 2.0 | 2.0 | 280 | IX6 |
| AWT-13085 | 5-13 | 33 | 41 | —/5.0 | +15 | 2.0 | +23 | 2.0 | 2.0 | 340 | IX6 |
| AWT-13086 | 5-13 | 40 | 48 | —/5.0 | +15 | 2.5 | +23 | 2.0 | 2.0 | 400 | IX8 |
| AWT-13043 | 5-13 | 20 | 25 | —/6.0 | +13 | 1.5 | +21 | 2.0 | 2.0 | 220 | IX4 |
| AWT-13044 | 5-13 | 27 | 33 | —/6.0 | +15 | 1.5 | +23 | 2.0 | 2.0 | 280 | IX6 |
| AWT-13045 | 5-13 | 34 | 42 | —/6.0 | +15 | 2.0 | +23 | 2.0 | 2.0 | 340 | IX6 |
| AWT-13046 | 5-13 | 41 | 49 | —/6.0 | +15 | 2.5 | +23 | 2.0 | 2.0 | 400 | IX8 |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible**

**AFT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|-----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AFT-18631 | 6-18                                | 7.0                  | 7.5 Typ.          | 6.4/6.7                        | +10                                                     | 1.0                            | +20                                       | 2.0                                 | 2.0 | 75 Typ.                                                  | AX2       |
| AFT-18632 | 6-18                                | 13.0                 | 14.0 Typ.         | 6.5/7.0                        | +10                                                     | 1.0                            | +20                                       | 2.0                                 | 2.0 | 125 Typ.                                                 | AX2       |
| AFT-18633 | 6-18                                | 18.5                 | 20.0 Typ.         | 6.5/7.0                        | +10                                                     | 1.0                            | +20                                       | 2.0                                 | 2.0 | 175 Typ.                                                 | AX4       |
| AFT-18634 | 6-18                                | 24.5                 | 26.0 Typ.         | 6.5/7.0                        | +10                                                     | 1.5                            | +20                                       | 2.0                                 | 2.0 | 250 Typ.                                                 | AX4       |
| AFT-18635 | 6-18                                | 30.0                 | 32.0 Typ.         | 6.5/7.0                        | +10                                                     | 2.0                            | +20                                       | 2.0                                 | 2.0 | 300 Typ.                                                 | AX6       |
| AFT-18651 | 6-18                                | 5.0                  | 6.0 Typ.          | 7.0/7.3                        | +15                                                     | 1.0                            | +25                                       | 2.0                                 | 2.0 | 100 Typ.                                                 | AX2       |
| AFT-18652 | 6-18                                | 11.0                 | 12.0 Typ.         | 7.0/7.3                        | +15                                                     | 1.0                            | +25                                       | 2.0                                 | 2.0 | 165 Typ.                                                 | AX2       |
| AFT-18653 | 6-18                                | 18.5                 | 20.0 Typ.         | 6.6/7.1                        | +15                                                     | 1.0                            | +25                                       | 2.0                                 | 2.0 | 225 Typ.                                                 | AX4       |
| AFT-18654 | 6-18                                | 24.5                 | 26.0 Typ.         | 6.6/7.1                        | +15                                                     | 1.5                            | +25                                       | 2.0                                 | 2.0 | 275 Typ.                                                 | AX4       |
| AFT-18655 | 6-18                                | 32.0                 | 34.0 Typ.         | 6.6/7.1                        | +15                                                     | 2.0                            | +25                                       | 2.0                                 | 2.0 | 325 Typ.                                                 | AX6       |
| AFT-18662 | 6-18                                | 9.5                  | 10.5 Typ.         | 8.7/9.2                        | +20                                                     | 1.0                            | +29                                       | 2.0                                 | 2.0 | 325 Typ.                                                 | AX2       |
| AFT-18663 | 6-18                                | 15.0                 | 16.5 Typ.         | 8.2/8.7                        | +20                                                     | 1.0                            | +29                                       | 2.0                                 | 2.0 | 360 Typ.                                                 | AX4       |
| AFT-18664 | 6-18                                | 23.0                 | 24.5 Typ.         | 6.6/7.1                        | +20                                                     | 1.5                            | +29                                       | 2.0                                 | 2.0 | 425 Typ.                                                 | AX4       |
| AFT-18665 | 6-18                                | 30.5                 | 32.5 Typ.         | 6.6/7.1                        | +20                                                     | 2.0                            | +29                                       | 2.0                                 | 2.0 | 475 Typ.                                                 | AX6       |

**Note**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AWT — High Performance and Temperature Compensated Connectorized Amplifier Series**

**AWT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model                | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------------------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| <b>NEW</b> AWT-18613 | 6-18                                | 25                   | 31                   | 2.5/2.8                        | +8                                                      | 1.0                            | +16                                       | 2.0                              | 2.0 | 150                                                      | IX4       |
| <b>NEW</b> AWT-18614 | 6-18                                | 31                   | 37                   | 2.5/2.8                        | +14                                                     | 1.5                            | +22                                       | 2.0                              | 2.0 | 200                                                      | IX4       |
| <b>NEW</b> AWT-18615 | 6-18                                | 37                   | 43                   | 2.5/2.8                        | +17                                                     | 1.5                            | +25                                       | 2.0                              | 2.0 | 275                                                      | IX6       |
| <b>NEW</b> AWT-18616 | 6-18                                | 42                   | 49                   | 2.5/2.8                        | +20                                                     | 2.0                            | +28                                       | 2.0                              | 2.0 | 450                                                      | IX6       |
| AWT-18632            | 6-18                                | 14                   | 20                   | 5.2/5.5                        | +13                                                     | 1.0                            | +21                                       | 2.0                              | 2.0 | 140                                                      | IX2       |
| AWT-18633            | 6-18                                | 20                   | 26                   | 5.1/5.5                        | +13                                                     | 1.0                            | +21                                       | 2.0                              | 2.0 | 200                                                      | IX4       |
| AWT-18634            | 6-18                                | 26                   | 32                   | 5.1/5.5                        | +15                                                     | 1.0                            | +23                                       | 2.0                              | 2.0 | 260                                                      | IX4       |
| AWT-18635            | 6-18                                | 32                   | 38                   | 5.1/5.5                        | +15                                                     | 1.5                            | +23                                       | 2.0                              | 2.0 | 320                                                      | IX6       |
| AWT-18636            | 6-18                                | 38                   | 44                   | 5.1/5.5                        | +15                                                     | 1.5                            | +23                                       | 2.0                              | 2.0 | 380                                                      | IX6       |
| AWT-18637            | 6-18                                | 44                   | 50                   | 5.1/5.5                        | +15                                                     | 2.0                            | +23                                       | 2.0                              | 2.0 | 440                                                      | IX8       |
| AWT-18654            | 6-18                                | 24                   | 30                   | 5.5/6.0                        | +20                                                     | 1.0                            | +28                                       | 2.0                              | 2.0 | 370                                                      | IX4       |
| AWT-18655            | 6-18                                | 30                   | 36                   | 5.2/5.5                        | +20                                                     | 1.5                            | +28                                       | 2.0                              | 2.0 | 430                                                      | IX6       |
| AWT-18656            | 6-18                                | 36                   | 42                   | 5.2/5.5                        | +20                                                     | 1.5                            | +28                                       | 2.0                              | 2.0 | 490                                                      | IX6       |
| AWT-18657            | 6-18                                | 42                   | 50                   | 5.2/5.5                        | +20                                                     | 2.0                            | +28                                       | 2.0                              | 2.0 | 560                                                      | IX8       |

**AWT Series — Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|           |      |    |    |         |     |     |     |     |     |     |      |
|-----------|------|----|----|---------|-----|-----|-----|-----|-----|-----|------|
| AWT-18685 | 6-18 | 26 | 32 | 5.3/5.5 | +10 | 2.5 | +18 | 2.0 | 2.0 | 350 | IX6  |
| AWT-18686 | 6-18 | 30 | 38 | 4.8/5.0 | +10 | 2.5 | +18 | 2.0 | 2.0 | 410 | IX8  |
| AWT-18688 | 6-18 | 40 | 48 | 4.8/5.0 | +15 | 3.0 | +23 | 2.0 | 2.0 | 520 | IX10 |
| AWT-18695 | 6-18 | 26 | 32 | 5.8/6.0 | +15 | 2.5 | +23 | 2.0 | 2.0 | 350 | IX6  |
| AWT-18696 | 6-18 | 30 | 36 | 5.8/6.0 | +18 | 2.5 | +26 | 2.0 | 2.0 | 510 | IX8  |
| AWT-18698 | 6-18 | 40 | 48 | 5.3/5.5 | +20 | 3.0 | +28 | 2.0 | 2.0 | 630 | IX10 |
| AWT-18644 | 6-18 | 20 | 25 | 6.7/7.0 | +12 | 2.0 | +20 | 2.0 | 2.0 | 290 | IX6  |
| AWT-18645 | 6-18 | 25 | 30 | 6.7/7.0 | +15 | 2.5 | +23 | 2.0 | 2.0 | 350 | IX6  |
| AWT-18646 | 6-18 | 30 | 36 | 6.3/6.5 | +15 | 2.5 | +23 | 2.0 | 2.0 | 440 | IX8  |
| AWT-18647 | 6-18 | 36 | 44 | 6.3/6.5 | +18 | 3.0 | +26 | 2.0 | 2.0 | 510 | IX8  |
| AWT-18648 | 6-18 | 42 | 50 | 6.3/6.5 | +18 | 3.0 | +26 | 2.0 | 2.0 | 570 | IX10 |
| AWT-18666 | 6-18 | 28 | 36 | 7.0/7.5 | +20 | 2.5 | +28 | 2.0 | 2.0 | 520 | IX8  |
| AWT-18667 | 6-18 | 36 | 44 | 6.3/6.5 | +20 | 3.0 | +28 | 2.0 | 2.0 | 600 | IX8  |

**Notes:**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.
2. Maximum RF input power for AWT-1861X Series is +17 dBm (CW), +27 dBm pulse, 1µs 1% D.C.

**AFT—Avanpak Series Amplifiers, Connectorized or Stripline Compatible**

**AFT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Typical Gain (dB) | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|-----------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------------------|-----------|
| AFT-18831 | 8-18                                | 7.0                  | 7.5 Typ.          | 6.4/6.7                        | +10                                                     | 1.0                            | +20                                       | 2.0 2.0                          | 75 Typ.                                                  | AX2       |
| AFT-18832 | 8-18                                | 13.0                 | 14.0 Typ.         | 6.5/7.0                        | +10                                                     | 1.0                            | +20                                       | 2.0 2.0                          | 125 Typ.                                                 | AX2       |
| AFT-18833 | 8-18                                | 18.5                 | 20.0 Typ.         | 6.5/7.0                        | +10                                                     | 1.0                            | +20                                       | 2.0 2.0                          | 175 Typ.                                                 | AX4       |
| AFT-18834 | 8-18                                | 24.5                 | 26.0 Typ.         | 6.5/7.0                        | +10                                                     | 1.5                            | +20                                       | 2.0 2.0                          | 250 Typ.                                                 | AX4       |
| AFT-18835 | 8-18                                | 30.0                 | 32.0 Typ.         | 6.5/7.0                        | +10                                                     | 2.0                            | +20                                       | 2.0 2.0                          | 300 Typ.                                                 | AX6       |
| AFT-18851 | 8-18                                | 5.0                  | 5.5 Typ.          | 7.0/7.3                        | +15                                                     | 1.0                            | +25                                       | 2.0 2.0                          | 100 Typ.                                                 | AX2       |
| AFT-18852 | 8-18                                | 11.0                 | 12.0 Typ.         | 7.0/7.3                        | +15                                                     | 1.0                            | +25                                       | 2.0 2.0                          | 165 Typ.                                                 | AX2       |
| AFT-18853 | 8-18                                | 18.5                 | 20.0 Typ.         | 6.6/7.1                        | +15                                                     | 1.0                            | +25                                       | 2.0 2.0                          | 225 Typ.                                                 | AX4       |
| AFT-18854 | 8-18                                | 24.5                 | 26.0 Typ.         | 6.6/7.1                        | +15                                                     | 1.5                            | +25                                       | 2.0 2.0                          | 275 Typ.                                                 | AX4       |
| AFT-18855 | 8-18                                | 32.0                 | 34.0 Typ.         | 6.6/7.1                        | +15                                                     | 2.0                            | +25                                       | 2.0 2.0                          | 325 Typ.                                                 | AX6       |
| AFT-18862 | 8-18                                | 9.5                  | 10.5 Typ.         | 8.7/9.2                        | +20                                                     | 1.0                            | +29                                       | 2.0 2.0                          | 325 Typ.                                                 | AX2       |
| AFT-18863 | 8-18                                | 15.0                 | 16.5 Typ.         | 8.2/8.7                        | +20                                                     | 1.0                            | +29                                       | 2.0 2.0                          | 360 Typ.                                                 | AX4       |
| AFT-18864 | 8-18                                | 23.0                 | 24.5 Typ.         | 6.6/7.1                        | +20                                                     | 1.5                            | +29                                       | 2.0 2.0                          | 425 Typ.                                                 | AX4       |
| AFT-18865 | 8-18                                | 30.5                 | 32.5 Typ.         | 6.6/7.1                        | +20                                                     | 2.0                            | +29                                       | 2.0 2.0                          | 475 Typ.                                                 | AX6       |

**AWT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|-----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------------------|-----------|
| AWT-18032 | 8-18                                | 14                   | 20                   | 5.5/6.5 <sup>2</sup>           | +13                                                     | 1.0                            | +21                                       | 2.0 2.0                          | 140                                                      | IX2       |
| AWT-18033 | 8-18                                | 20                   | 26                   | 5.5/6.5 <sup>2</sup>           | +13                                                     | 1.0                            | +21                                       | 2.0 2.0                          | 190                                                      | IX4       |
| AWT-18034 | 8-18                                | 26                   | 32                   | 5.5/6.5 <sup>2</sup>           | +15                                                     | 1.0                            | +23                                       | 2.0 2.0                          | 260                                                      | IX4       |
| AWT-18035 | 8-18                                | 32                   | 38                   | 5.5/6.5 <sup>2</sup>           | +15                                                     | 1.5                            | +23                                       | 2.0 2.0                          | 310                                                      | IX6       |
| AWT-18036 | 8-18                                | 38                   | 44                   | 5.5/6.5 <sup>2</sup>           | +15                                                     | 1.5                            | +23                                       | 2.0 2.0                          | 370                                                      | IX6       |
| AWT-18037 | 8-18                                | 44                   | 50                   | 5.5/6.5 <sup>2</sup>           | +15                                                     | 2.0                            | +23                                       | 2.0 2.0                          | 430                                                      | IX8       |
| AWT-18054 | 8-18                                | 24                   | 30                   | 5.5/7.0                        | +20                                                     | 1.0                            | +28                                       | 2.0 2.0                          | 370                                                      | IX4       |
| AWT-18055 | 8-18                                | 30                   | 36                   | 5.5/7.0                        | +20                                                     | 1.5                            | +28                                       | 2.0 2.0                          | 420                                                      | IX6       |
| AWT-18056 | 8-18                                | 36                   | 42                   | 5.5/7.0                        | +20                                                     | 1.5                            | +28                                       | 2.0 2.0                          | 480                                                      | IX6       |
| AWT-18057 | 8-18                                | 42                   | 50                   | 5.5/7.0                        | +20                                                     | 2.0                            | +28                                       | 2.0 2.0                          | 520                                                      | IX8       |

**AWT Series — Temperature Compensated**

Guaranteed Specifications @ -54° to +100°C Case Temperature

|           |      |    |    |       |     |     |     |         |     |      |
|-----------|------|----|----|-------|-----|-----|-----|---------|-----|------|
| AWT-18044 | 8-18 | 20 | 25 | —/7.5 | +12 | 2.0 | +20 | 2.0 2.0 | 290 | IX6  |
| AWT-18045 | 8-18 | 25 | 30 | —/7.5 | +15 | 2.5 | +23 | 2.0 2.0 | 350 | IX6  |
| AWT-18046 | 8-18 | 30 | 36 | —/7.5 | +15 | 2.5 | +23 | 2.0 2.0 | 430 | IX8  |
| AWT-18047 | 8-18 | 36 | 44 | —/7.5 | +18 | 3.0 | +26 | 2.0 2.0 | 500 | IX8  |
| AWT-18048 | 8-18 | 42 | 50 | —/7.5 | +18 | 3.0 | +26 | 2.0 2.0 | 575 | IX10 |
| AWT-18066 | 8-18 | 28 | 36 | —/8.5 | +20 | 2.5 | +28 | 2.0 2.0 | 520 | IX8  |
| AWT-18067 | 8-18 | 36 | 44 | —/7.5 | +20 | 3.0 | +28 | 2.0 2.0 | 600 | IX8  |

**Notes**

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.
2. 4.0 dB noise figure versions are available on special request.

## AMT — High Performance Connectorized Amplifier Series

### AMT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Typ./Max. | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|-----------|-------------------------------------|----------------------|----------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AMT-18032 | 12-18                               | 14                   | 20                   | 5.5/6.5 <sup>2</sup>           | +13 <sup>3</sup>                                        | 1.0                            | +21                                       | 2.0                                 | 2.0 | 140                                                      | IX2       |
| AMT-18033 | 12-18                               | 20                   | 26                   | 5.0/6.5 <sup>2</sup>           | +13 <sup>3</sup>                                        | 1.0                            | +21                                       | 2.0                                 | 2.0 | 190                                                      | IX4       |
| AMT-18034 | 12-18                               | 26                   | 32                   | 5.0/6.5 <sup>2</sup>           | +15 <sup>3</sup>                                        | 1.0                            | +23                                       | 2.0                                 | 2.0 | 260                                                      | IX4       |
| AMT-18035 | 12-18                               | 32                   | 38                   | 5.0/6.5 <sup>2</sup>           | +15 <sup>3</sup>                                        | 1.5                            | +23                                       | 2.0                                 | 2.0 | 310                                                      | IX6       |
| AMT-18036 | 12-18                               | 38                   | 44                   | 5.0/6.5 <sup>2</sup>           | +15 <sup>3</sup>                                        | 1.5                            | +23                                       | 2.0                                 | 2.0 | 360                                                      | IX6       |
| AMT-18037 | 12-18                               | 44                   | 50                   | 5.0/6.5 <sup>2</sup>           | +15 <sup>3</sup>                                        | 2.0                            | +23                                       | 2.0                                 | 2.0 | 410                                                      | IX8       |

### AMT Series — Temperature Compensated

Guaranteed Specifications @ -54° to +100°C Case Temperature

|           |       |    |    |       |     |     |     |     |     |     |      |
|-----------|-------|----|----|-------|-----|-----|-----|-----|-----|-----|------|
| AMT-18044 | 12-18 | 20 | 25 | —/7.5 | +12 | 2.0 | +20 | 2.0 | 2.0 | 290 | IX6  |
| AMT-18045 | 12-18 | 25 | 30 | —/7.5 | +15 | 2.5 | +23 | 2.0 | 2.0 | 350 | IX6  |
| AMT-18046 | 12-18 | 30 | 36 | —/7.5 | +15 | 2.5 | +23 | 2.0 | 2.0 | 440 | IX8  |
| AMT-18047 | 12-18 | 36 | 44 | —/7.5 | +18 | 3.0 | +26 | 2.0 | 2.0 | 410 | IX8  |
| AMT-18048 | 12-18 | 42 | 50 | —/7.5 | +18 | 3.0 | +26 | 2.0 | 2.0 | 570 | IX10 |

#### Notes

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.
2. 4.0 dB noise figure versions are available on special request.
3. +20 dBm at 1 dB compression versions are available on special request.

# AFT, AMT and AWT Series: Wideband Small Signal Amplifiers

1.0 to 20.0 GHz  
Frequency Range

AFT — Avanpak Series Amplifiers, Connectorized or Stripline Compatible  
AWT—High Performance Connectorized Amplifier Series

## AFT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Maximum | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Typical (mA) | Case Type |
|-----------|-------------------------------------|----------------------|----------------------|------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| AFT-18232 | 2-18                                | 9.0                  | 17                   | 10.0                         | +10                                                     | 2.0                            | +18                                       | 2.2                              | 2.2 | 225                                                      | AX2       |
| AFT-18234 | 2-18                                | 18.0                 | 28                   | 10.0                         | +10                                                     | 4.0                            | +18                                       | 2.2                              | 2.2 | 425                                                      | AX2       |

## AWT Series

Guaranteed Specifications @ 25°C Case Temperature

| Model                | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Maximum | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|----------------------|-------------------------------------|----------------------|----------------------|------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|-----|----------------------------------------------------------|-----------|
| <b>NEW</b> AWT-12012 | 0.5-12                              | 27.0                 | 32                   | 5.5/6.5                      | +10                                                     | 1.5                            | +18                                       | 2.3                              | 2.0 | 325                                                      | IX2       |
| <b>NEW</b> AWT-12013 | 0.5-12                              | 41.0                 | 49                   | 5.5/6.5                      | +10                                                     | 2.0                            | +18                                       | 2.3                              | 2.0 | 475                                                      | IX4       |
| AWT-19133            | 1-19                                | 14.5                 | 19                   | 10.5                         | +10                                                     | 2.0                            | +18                                       | 2.2                              | 2.2 | 275                                                      | IX4       |
| AWT-19134            | 1-19                                | 20.0                 | 27                   | 10.5                         | +10                                                     | 2.5                            | +18                                       | 2.2                              | 2.2 | 365                                                      | IX4       |
| AWT-19135            | 1-19                                | 25.0                 | 34                   | 10.5                         | +10                                                     | 3.0                            | +18                                       | 2.2                              | 2.2 | 455                                                      | IX6       |
| AWT-18233            | 2-18                                | 14.5                 | 19                   | 10.0                         | +10                                                     | 1.5                            | +18                                       | 2.2                              | 2.2 | 275                                                      | IX4       |
| AWT-18234            | 2-18                                | 20.0                 | 27                   | 10.0                         | +10                                                     | 2.0                            | +18                                       | 2.2                              | 2.2 | 365                                                      | IX4       |
| AWT-18235            | 2-18                                | 25.0                 | 34                   | 10.0                         | +10                                                     | 2.5                            | +18                                       | 2.2                              | 2.2 | 455                                                      | IX6       |
| AWT-18236            | 2-18                                | 30.0                 | 40                   | 10.0                         | +10                                                     | 3.0                            | +18                                       | 2.2                              | 2.2 | 545                                                      | IX6       |
| <b>NEW</b> AWT-18212 | 2-18                                | 29.0                 | 34                   | 5.8/6.5                      | +10                                                     | 1.5                            | +18                                       | 2.2                              | 2.2 | 250                                                      | IX2       |
| <b>NEW</b> AWT-18213 | 2-18                                | 42.0                 | 50                   | 5.8/6.5                      | +10                                                     | 2.0                            | +18                                       | 2.2                              | 2.2 | 350                                                      | IX4       |
| AWT-18252            | 2-18                                | 10.0                 | 15                   | 10.0                         | +20                                                     | 1.0                            | +28                                       | 2.2                              | 2.2 | 375                                                      | IX2       |
| AWT-18253            | 2-18                                | 15.0                 | 22                   | 10.0                         | +20                                                     | 1.5                            | +28                                       | 2.2                              | 2.2 | 550                                                      | IX4       |
| AWT-18254            | 2-18                                | 20.0                 | 28                   | 10.0                         | +20                                                     | 2.0                            | +28                                       | 2.2                              | 2.2 | 650                                                      | IX4       |
| AWT-20233            | 2-20                                | 14.5                 | 19                   | 11.0                         | +10                                                     | 1.5                            | +18                                       | 2.2                              | 2.2 | 275                                                      | IX4       |
| AWT-20234            | 2-20                                | 20.0                 | 27                   | 11.0                         | +10                                                     | 2.0                            | +18                                       | 2.2                              | 2.2 | 365                                                      | IX4       |
| AWT-20235            | 2-20                                | 25.0                 | 34                   | 11.0                         | +10                                                     | 2.5                            | +18                                       | 2.2                              | 2.2 | 455                                                      | IX6       |
| AWT-20236            | 2-20                                | 30.0                 | 40                   | 11.0                         | +10                                                     | 3.0                            | +18                                       | 2.2                              | 2.2 | 545                                                      | IX6       |

## AWT Series — Temperature Compensated

Guaranteed Specifications @ -54°C to +100°C Case Temperature

|           |      |    |    |      |    |     |     |     |     |     |     |
|-----------|------|----|----|------|----|-----|-----|-----|-----|-----|-----|
| AWT-18244 | 2-18 | 18 | 26 | 11.0 | +9 | 3.0 | +17 | 2.2 | 2.2 | 425 | IX4 |
| AWT-18245 | 2-18 | 22 | 31 | 11.0 | +9 | 3.5 | +17 | 2.2 | 2.2 | 510 | IX6 |
| AWT-18246 | 2-18 | 26 | 36 | 11.0 | +9 | 4.0 | +17 | 2.2 | 2.2 | 600 | IX6 |

### Note

1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

**AMT — High Performance Connectorized Amplifier Series**

**AWT — High Performance Connectorized Amplifier Series**

**AMT Series**

Guaranteed Specifications @ 25°C Case Temperature

| Model     | Frequency Response (GHz)<br>Minimum | Gain (dB)<br>Minimum | Gain (dB)<br>Maximum | Noise Figure (dB)<br>Maximum | Power Output for 1 dB Gain Compression (dBm)<br>Minimum | Gain Flatness (±dB)<br>Maximum | Typical Third Order Intercept Point (dBm) | VSWR (50 ohms)<br>Maximum<br>In Out |     | Input Power Current @ +12 V <sup>1</sup><br>Maximum (mA) | Case Type |
|-----------|-------------------------------------|----------------------|----------------------|------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|-------------------------------------|-----|----------------------------------------------------------|-----------|
| AMT-20032 | 12-20                               | 10                   | 14                   | 7.0                          | +17.0                                                   | 1.0                            | +25                                       | 2.0                                 | 2.0 | 175                                                      | IX2       |
| AMT-20033 | 12-20                               | 15                   | 20                   | 7.0                          | +17.0                                                   | 1.0                            | +25                                       | 2.0                                 | 2.0 | 250                                                      | IX4       |
| AMT-20034 | 12-20                               | 21                   | 27                   | 7.0                          | +17.0                                                   | 1.5                            | +25                                       | 2.0                                 | 2.0 | 325                                                      | IX4       |
| AMT-20035 | 12-20                               | 26                   | 33                   | 7.0                          | +17.0                                                   | 1.5                            | +25                                       | 2.0                                 | 2.0 | 400                                                      | IX6       |
| AMT-20036 | 12-20                               | 32                   | 40                   | 7.0                          | +17.0                                                   | 2.0                            | +25                                       | 2.0                                 | 2.0 | 475                                                      | IX6       |

**AWT Series**

Guaranteed Specifications @ 25°C Case Temperature

|           |      |    |    |     |       |     |     |     |     |     |     |
|-----------|------|----|----|-----|-------|-----|-----|-----|-----|-----|-----|
| AWT-20832 | 8-20 | 10 | 14 | 8.0 | +16.0 | 1.0 | +24 | 2.0 | 2.0 | 175 | IX2 |
| AWT-20833 | 8-20 | 15 | 20 | 8.0 | +16.0 | 1.0 | +24 | 2.0 | 2.0 | 250 | IX4 |
| AWT-20834 | 8-20 | 21 | 27 | 8.0 | +16.0 | 1.5 | +24 | 2.0 | 2.0 | 325 | IX4 |
| AWT-20835 | 8-20 | 26 | 33 | 8.0 | +16.0 | 1.5 | +24 | 2.0 | 2.0 | 400 | IX6 |
| AWT-20836 | 8-20 | 32 | 40 | 8.0 | +16.0 | 2.0 | +24 | 2.0 | 2.0 | 485 | IX6 |

**Note**

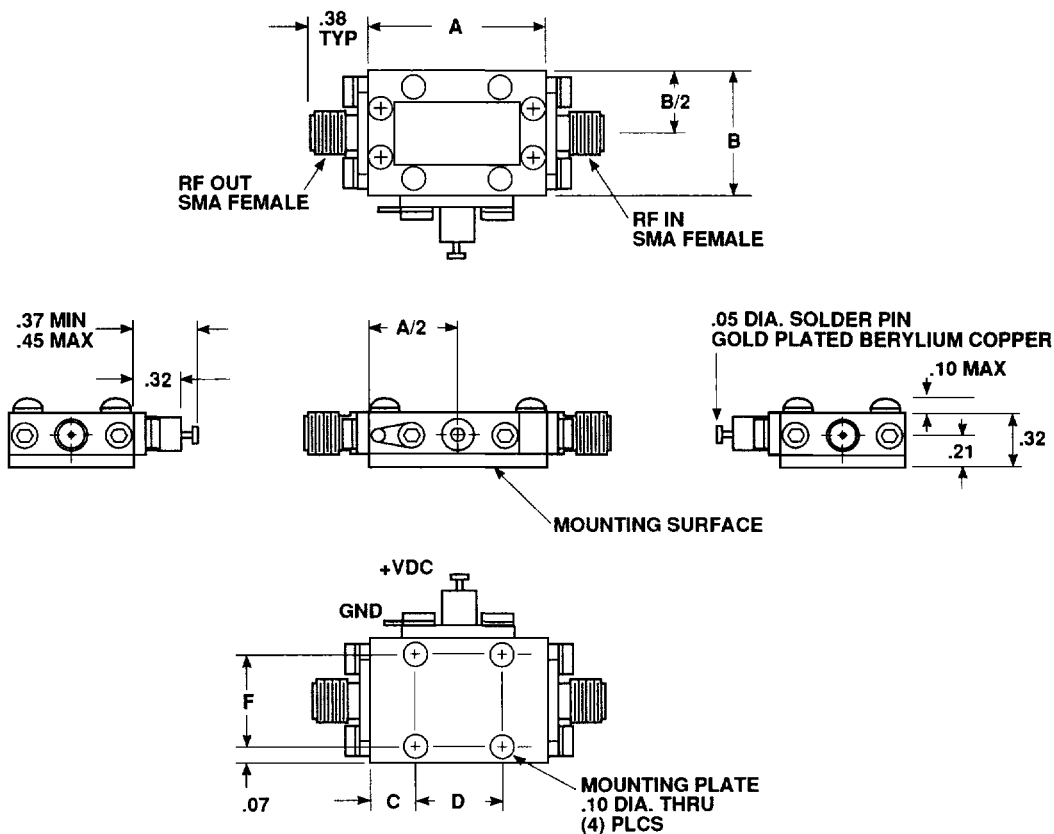
1. Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.

# AFT, AMT and AWT Series: Wideband Small Signal Amplifiers

## Case Drawings AC\_, AS\_, and AX\_

### AFT Series: Avanpak™ SMA Package

Female input and output connectors are the standard. If any other connectors are desired, please add the appropriate suffix, as shown in the table below, to the AFT model number.



#### NOTES (UNLESS OTHERWISE SPECIFIED):

1. DIMENSIONS ARE SPECIFIED IN INCHES
2. TOLERANCES: .XX ± .02  
.XXX ± .010

#### CONNECTOR OPTION TABLE

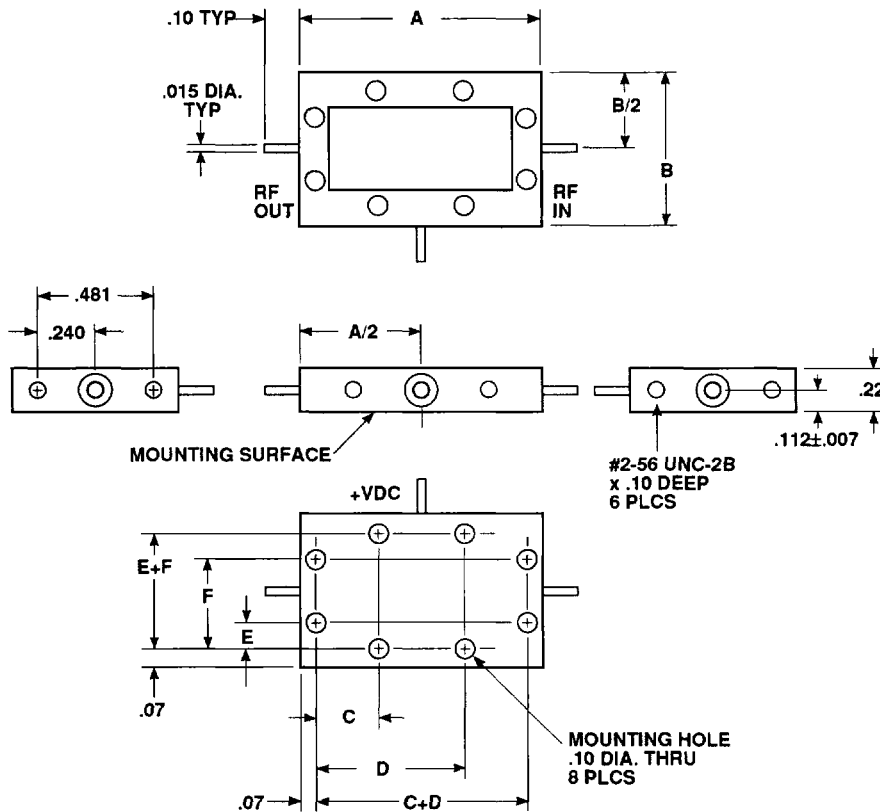
|          | SUFFIX | INPUT | OUTPUT |
|----------|--------|-------|--------|
| STANDARD | -10F   | FEM   | FEM    |
|          | -30F   | MALE  | MALE   |
| SPECIAL  | -40F   | MALE  | FEM    |
| ORDER    | -50F   | FEM   | MALE   |

| CASE | DIMENSION |      |      |       |      | WEIGHT<br>MAX<br>GRAMS |
|------|-----------|------|------|-------|------|------------------------|
|      | A         | B    | C    | D     | F    |                        |
| AX2  | 1.364     | .664 | .31  | .750  | .524 | 35                     |
| AC2  | 1.500     | .764 | .34  | .826  | .624 | 40                     |
| AS2  | 1.500     | .862 | .34  | .826  | .722 | 42                     |
| AX4  | 1.850     | .664 | .31  | 1.236 | .524 | 45                     |
| AC4  | 2.170     | .764 | .672 | .826  | .624 | 55                     |
| AS4  | 2.170     | .862 | .672 | .826  | .722 | 57                     |
| AX6  | 2.336     | .664 | .307 | 1.722 | .524 | 53                     |

## Case Drawings AC\_, AS\_, and AX\_

### AFT Series: Avanpak™ PIN Package Dimensions - connectors and baseplate removed.

All Avanpaks are supplied with connectors installed; however, they may be removed by the user. If DC filtercon is removed, the user may need to provide external filtering.



| CASE | DIMENSION |      |      |       |      |      | WEIGHT<br>MAX<br>GRAMS |
|------|-----------|------|------|-------|------|------|------------------------|
|      | A         | B    | C    | D     | E    | F    |                        |
| AX2  | 1.364     | .664 | .237 | .987  | .137 | .387 | 26                     |
| AC2  | 1.500     | .764 | .267 | 1.093 | .187 | .437 | 31                     |
| AS2  | 1.500     | .862 | .267 | 1.093 | .236 | .486 | 33                     |
| AX4  | 1.850     | .664 | .237 | 1.473 | .137 | .387 | 36                     |
| AC4  | 2.170     | .764 | .602 | 1.428 | .187 | .437 | 46                     |
| AS4  | 2.170     | .862 | .602 | 1.428 | .236 | .486 | 48                     |
| AX6  | 2.336     | .664 | .237 | 1.959 | .137 | .387 | 44                     |

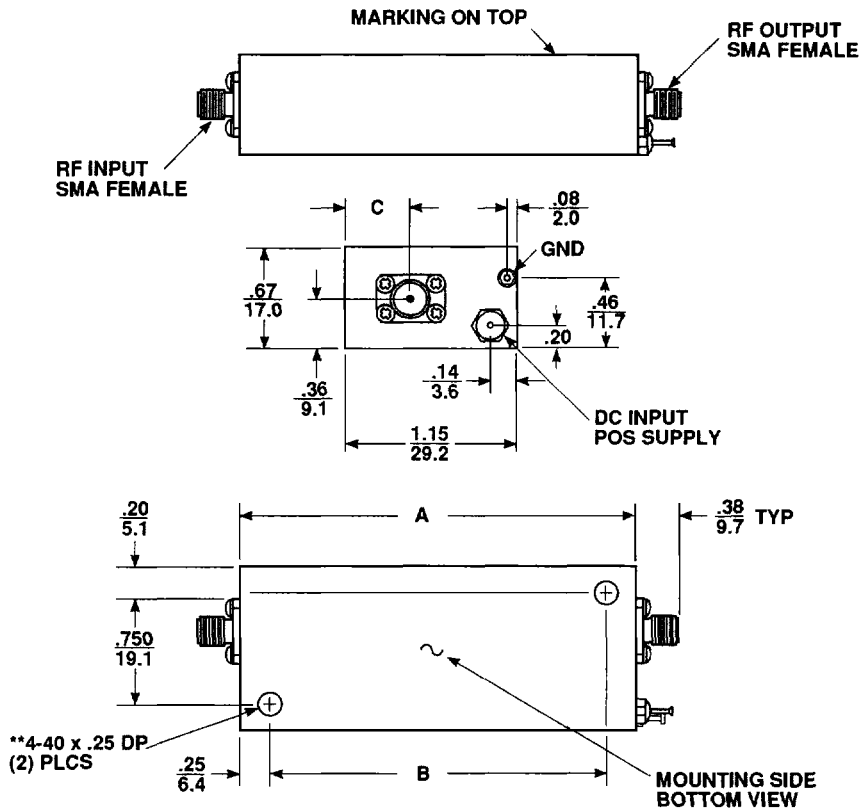
#### NOTES (UNLESS OTHERWISE SPECIFIED):

1. DIMENSIONS ARE SPECIFIED IN INCHES
2. TOLERANCES: .XX ± .01  
.XXX ± .005
3. MATERIAL:  
BODY AND RF CONNECTORS — 303 STAINLESS STEEL  
MOUNTING SPACER — ALUMINUM ALLOY  
FILTER BODY — NICKEL PLATED BRASS

**AFT, AMT and AWT Series:**  
**Wideband Small Signal Amplifiers**

**Case Drawings**  
**IC\_, IS\_, and IX\_**

**AMT/AWT Series**



| CASE | DIMENSION |      |       |      |      |      | WEIGHT<br>TYPICAL |     |
|------|-----------|------|-------|------|------|------|-------------------|-----|
|      | A         |      | B     |      | C    |      |                   |     |
|      | IN        | MM   | IN    | MM   | IN   | MM   | OZ                | GMS |
| IS2  | 1.417     | 35.9 | .917  | 23.2 | .375 | 9.5  | 2                 | 47  |
| IS4  | 2.083     | 52.9 | 1.583 | 40.2 | .375 | 9.5  | 3                 | 68  |
| IS6  | 2.750     | 69.8 | 2.250 | 57.1 | .375 | 9.5  | 4                 | 90  |
| IC2  | 1.417     | 35.9 | .917  | 23.2 | .465 | 11.8 | 2                 | 47  |
| IC4  | 2.083     | 52.9 | 1.583 | 40.2 | .465 | 11.8 | 3                 | 68  |
| IC6  | 2.750     | 69.8 | 2.250 | 57.1 | .465 | 11.8 | 4                 | 90  |
| IX2  | 1.250     | 31.8 | .750  | 19.1 | .510 | 13.0 | 2                 | 47  |
| IX4  | 1.750     | 44.4 | 1.250 | 31.7 | .510 | 13.0 | 2                 | 58  |
| IX6  | 2.250     | 57.1 | 1.750 | 44.4 | .510 | 13.0 | 3                 | 78  |
| IX8  | 2.750     | 69.8 | 2.250 | 57.1 | .510 | 13.0 | 4                 | 92  |
| IX10 | 3.250     | 82.5 | 2.750 | 69.8 | .510 | 13.0 | 4                 | 108 |

**NOTES (UNLESS OTHERWISE SPECIFIED):**

1. DIMENSIONS ARE SPECIFIED IN  $\frac{\text{INCHES}}{\text{MM}}$
2. TOLERANCES: .XX  $\pm$  .02  
.XXX  $\pm$  .010

ALL TOLERANCES BEFORE PAINT AND/OR LABELING

\*\*AVAILABLE WITH METRIC THREAD M3 ON REQUEST.  
 NO THREADS FIRST .062"

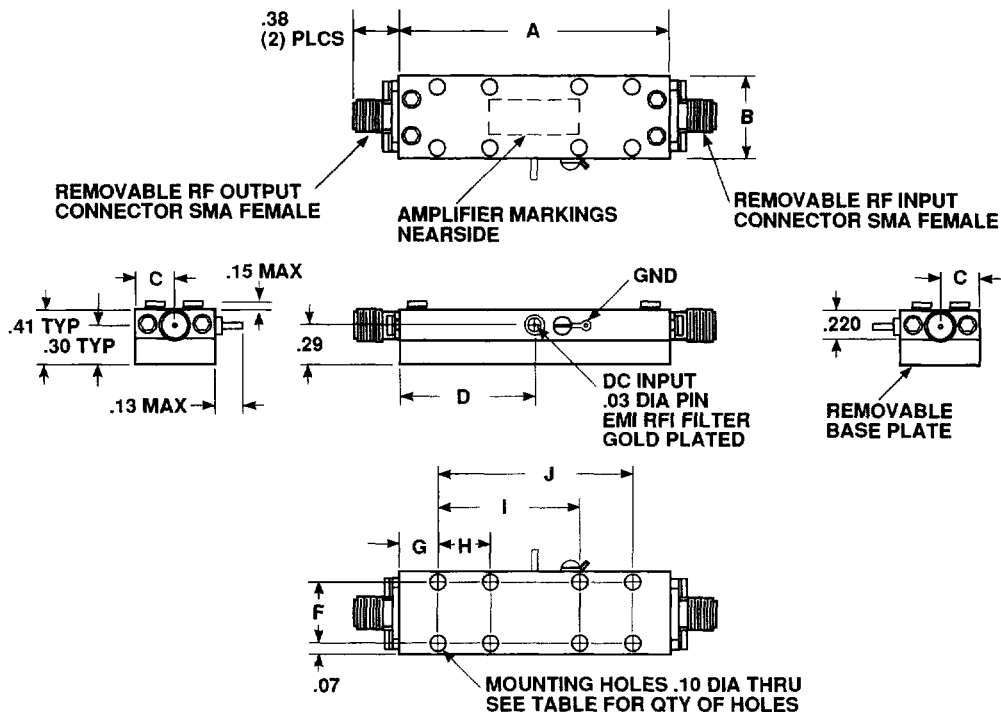
**CONNECTOR OPTION TABLE**

|                  | SUFFIX | INPUT | OUTPUT |
|------------------|--------|-------|--------|
| STANDARD         | NONE   | FEM   | FEM    |
| SPECIAL<br>ORDER | -30I   | MALE  | MALE   |
|                  | -40I   | MALE  | FEM    |
|                  | -50I   | FEM   | MALE   |

## Case Drawings

### MAC\_, MAS\_, and MAX\_

SELECTED AMPLIFIERS AVAILABLE IN THE I-SERIES CASE SHOWN ON THE PREVIOUS PAGE ARE ALSO AVAILABLE IN THIS MA-SERIES CASE. INTERNAL DC FILTERING IS PROVIDED ON THE DC TERMINAL. CONTACT AVANTEK APPLICATIONS ENGINEERING FOR FURTHER INFORMATION.



| CASE | DIMENSION |      |      |      |      |     |      |       |       |       | QTY OF HOLES |
|------|-----------|------|------|------|------|-----|------|-------|-------|-------|--------------|
|      | A         | B    | C    | D    | E    | F   | G    | H     | I     | J     |              |
| MAX2 | 1.364     | .664 | .332 | .68  | .524 | .31 | N/A  | N/A   | N/A   | .750  | 4            |
| MAC2 | 1.500     | .764 | .382 | .75  | .624 | .34 | N/A  | N/A   | N/A   | .826  | 4            |
| MAS2 | 1.500     | .862 | .431 | .75  | .722 | .34 | N/A  | N/A   | N/A   | .826  | 4            |
| MAX3 | 1.607     | .664 | .332 | .80  | .524 | .31 | N/A  | N/A   | N/A   | .992  | 4            |
| MAC3 | 1.833     | .764 | .382 | .75  | .624 | .34 | N/A  | N/A   | N/A   | 1.159 | 4            |
| MAS3 | 1.833     | .862 | .431 | .75  | .722 | .34 | N/A  | N/A   | N/A   | 1.159 | 4            |
| MAX4 | 1.850     | .664 | .332 | .92  | .524 | .31 | N/A  | N/A   | N/A   | 1.238 | 4            |
| MAC4 | 2.170     | .764 | .382 | 1.08 | .624 | .67 | N/A  | N/A   | N/A   | .826  | 4            |
| MAS4 | 2.170     | .862 | .431 | 1.08 | .722 | .67 | N/A  | N/A   | N/A   | .826  | 4            |
| MAX5 | 2.093     | .664 | .332 | 1.04 | .524 | .31 | N/A  | N/A   | N/A   | 1.478 | 4            |
| MAC5 | 2.503     | .764 | .382 | 1.08 | .624 | .67 | N/A  | N/A   | N/A   | 1.159 | 4            |
| MAS5 | 2.503     | .862 | .431 | 1.08 | .722 | .67 | N/A  | N/A   | N/A   | 1.159 | 4            |
| MAX6 | 2.336     | .664 | .332 | 1.17 | .524 | .31 | .483 | 1.239 | 1.722 | 8     | 8            |
| MAC6 | 2.836     | .764 | .382 | 1.41 | .624 | .67 | N/A  | N/A   | N/A   | 1.491 | 4            |
| MAS6 | 2.836     | .862 | .431 | 1.41 | .722 | .67 | N/A  | N/A   | N/A   | 1.491 | 4            |
| MAX7 | 2.579     | .664 | .332 | 1.29 | .524 | .31 | .483 | 1.478 | 1.965 | 8     | 8            |
| MAX8 | 2.822     | .664 | .332 | 1.41 | .524 | .31 | .483 | 1.722 | 2.207 | 8     | 8            |

NOTES (UNLESS OTHERWISE SPECIFIED):

1. DIMENSIONS ARE SPECIFIED IN INCHES
  2. TOLERANCES: .XX ± .02  
.XXX ± .010
- ALL TOLERANCES BEFORE PAINT AND/OR LABELING