

## Avantek Products

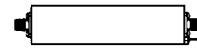
# Wideband Small Signal Amplifiers 6.0 to 18.0 GHz

## Technical Data

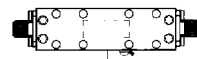
### AWT Series

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

**Pin Configuration  
IC<sub>-</sub>, IS<sub>-</sub>, IX<sub>-</sub>**



**MAC<sub>-</sub>, MAS<sub>-</sub>, MAX<sub>-</sub> <sup>(4)</sup>**



### AWT Series<sup>3</sup>

Guaranteed Specifications @ 25°C Case Temperature

(See Section 5 for detailed case drawings.)

| 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 |
|------------------------|-------------------------------------|----------------------|-------------------|--------------------------------|---------------------------------------------------------|--------------------------------|-------------------------------------------|----------------------------------|----------------------------------------------------------|-----------|
| AWT-18613 <sup>2</sup> | 6-18                                | 25                   | 31                | 2.5/2.8                        | +8                                                      | 1.0                            | +16                                       | 2.0 2.0                          | 150                                                      | IX4       |
| AWT-18614 <sup>2</sup> | 6-18                                | 31                   | 37                | 2.5/2.8                        | +14                                                     | 1.5                            | +22                                       | 2.0 2.0                          | 200                                                      | IX4       |
| AWT-18615 <sup>2</sup> | 6-18                                | 37                   | 43                | 2.5/2.8                        | +17                                                     | 1.5                            | +25                                       | 2.0 2.0                          | 275                                                      | IX6       |
| AWT-18616 <sup>2</sup> | 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<sup>3</sup>

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:

- Units contain internal voltage regulator and operate with input voltage of +12 to +15 Vdc.
- Maximum RF input power for AWT-1861X Series is -17 dBm (CW), +27 dBm pulse, 1ms 1% D.C.
- For a description of all available product options, refer to the beginning of this subsection.
- MA-Series case options available on selected amplifiers upon special request.