

# T3AFG Fact Sheet

## Function / Arbitrary Waveform Generator

### Debug with Confidence

#### 30 MHz – 500 MHz



#### Key Specifications

<b>Bandwidth</b>	30 MHz, 40 MHz, 60 MHz, 80 MHz, 120 MHz, 200 MHz, 350 MHz, 500 MHz
<b>Channels</b>	2 Channel Models
<b>Memory</b>	16 kpts/Ch, 8 Mpts/Ch, 20 Mpts/Ch
<b>Sample Rate</b>	up to 2.4 GS/s
<b>Display</b>	T3AFG30 – T3AFG500: 4.3"
<b>Connectivity</b>	USB Host, USB Device, LAN

#### Tools for Improved Debugging

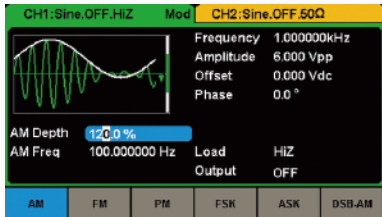
- ✔ **Deep Memory** – models with up to 20 Mpts/Ch, 8 Mpts/Ch or 16 kpts/Ch depending on model.
 ✔ **Generate complex arbitrary waveforms.**
- ✔ **Wide Range of Modulation Types** – AM, DSB-AM, FM, PM, FSK, ASK, PWM, Sweep, Burst, and PSK on 2 Ch models.
 ✔ **Quickly set up modulated waveforms.**
- ✔ **High Resolution** – 16 bit or 14 bit vertical resolution depending on the model.
 ✔ **Generate waveforms with low noise and spurious signal content.**
- ✔ **Bandwidth Models up to 500 MHz**
✔ **Wide choice of bandwidths.**
- ✔ **Built In Arbitrary Waveforms**
✔ **Load and replay built in Arbitrary Waveforms.**
- ✔ **User Defined Waveforms**
✔ **Store and recall user defined waveforms.**
- ✔ **3 Years Warranty as standard**
✔ **Peace of mind.**

For more information, please contact:

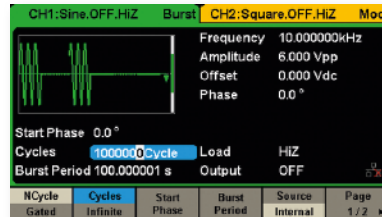


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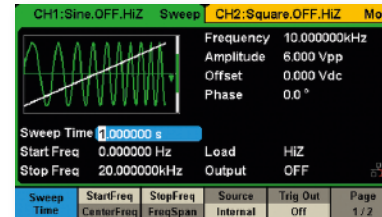
## Function / Arbitrary Waveform Generator



The T3AFG range of Function / Arbitrary Waveform Generators support a wide range of modulation types.



Burst mode supports 'N Cycle' and 'Gated' modes with the Burst source being configured as 'Internal', 'External' or 'Manual'.



Sweep mode supports 'Linear' and 'Log' sweep, with 'Up' and 'Down' direction, and Sweep source being configured as 'Internal', 'External' or 'Manual'.

### Ordering Information

Model	Bandwidth	Channel	Vertical Resolution	Memory per Ch	Sample Rate per Ch
T3AFG30	30 MHz	2	14 Bits	16 kpts	150 MS/s
T3AFG40	40 MHz	2	16 Bits	8 Mpts	1.2 GS/s
T3AFG60	60 MHz	2	14 Bits	16 kpts	150 MS/s
T3AFG80	80 MHz	2	16 Bits	8 Mpts	1.2 GS/s
T3AFG120	120 MHz	2	16 Bits	8 Mpts	1.2 GS/s
T3AFG200	200 MHz	2	16 Bits	20 Mpts	2.4 GS/s (Interpolated)
T3AFG350	350 MHz	2	16 Bits	20 Mpts	2.4 GS/s (Interpolated)
T3AFG500	500 MHz	2	16 Bits	20 Mpts	2.4 GS/s (Interpolated)

### Excellent Performance

- Bandwidths from 30 MHz to 500 MHz
- 2 Channel Models
- Up to 20 Mpts / Channel memory

### Great Connectivity

- USB host port for mass storage
- USB device port (USBTMC)
- LAN port on 2 channel models

### Smart Capabilities

- Sweep output carrier can be Sine, Square, Triangle and Arbitrary waveforms
- Burst output under internal or external signal control
- Waveforms types include DC
- Frequency Resolution 1  $\mu$ Hz
- DSB-AM: Double Sideband AM modulation Function
- Harmonic Function on 2 channel models
- T3AFG200/T3AFG350/T3AFG500 support PRBS output as standard

Function	T3AFG30*, T3AFG40, T3AFG60*, T3AFG80, T3AFG120	T3AFG200, T3AFG350, T3AFG500
<b>Built-in Waveforms</b>	5 Standard, 196 Arbitrary	7 Standard, 196 Arbitrary
<b>Input/Output</b>	2 Waveform Outputs, Counter Input, Aux In/Out, 10 MHz Clock In/Out	2 Waveform Outputs, Counter Input, Aux In/Out, 10 MHz Clock In/Out
<b>Modulation Functions</b>	AM, DSB-AM, FM, PM, FSK, ASK, PSK, PWM. Sweep, Burst, Harmonic	AM, DSB-AM, FM, PM, FSK, ASK, PSK, PWM. Sweep, Burst, Harmonic
<b>Maximum Amplitude Output (Sine Wave)</b>	< 20 MHz: 10 Vpp at 50 Ohms, 20 Vpp at HiZ > 20 MHz: 5 Vpp at 50 Ohms, 10 Vpp at HiZ *T3AFG30 and T3AFG60: < 10 MHz: 10 Vpp at 50 Ohms, 20 Vpp at HiZ > 10 MHz: 5 Vpp at 50 Ohms, 10 Vpp at HiZ	From 10 Vpp at 50 Ohms, 20 Vpp at HiZ (<40 MHz), to 640 mVpp at 50 Ohms, 1.28 Vpp at HiZ at 500 MHz. See data sheet for full specifications on each model