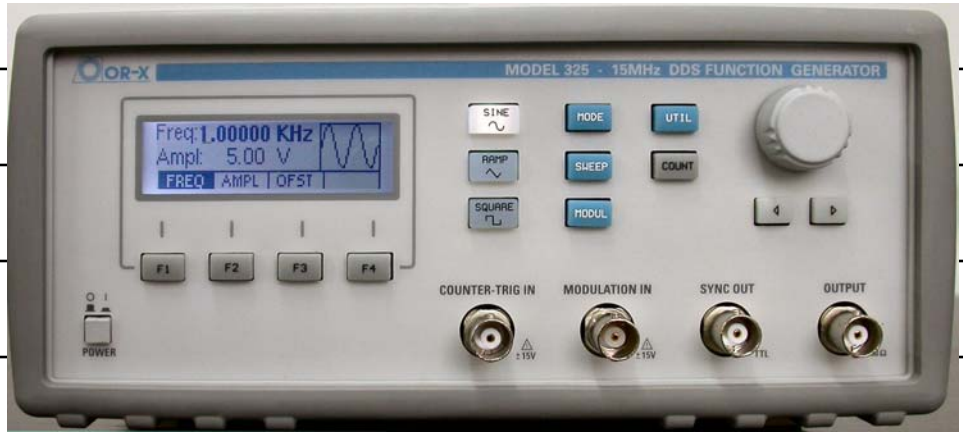
MODEL 325

DDS FUNCTION GENERATOR

*** 15 MHz Frequency Range**
*** Sine, Square and Triangle**
*** AM, FM and Lin or Log Sweep**
*** RS-232C Interface**



Capabilities

The MODEL 325 can generate standard by Direct Digital Synthesizer technology. This full digital implementation generates high precision waveforms with very low distortions and spurious.
All waveforms are internally generated with amplitudes to 10Vp-p into 50 Ω. An offset generator allows generation of signals with large offsets. A full range of triggering capabilities is available, including internal-external trigger source, gated and burst modes of operation.

Easy Operation

A menu-driven front panel operation with an easy-to-read graphic LCD display makes the MODEL 325 easy to operate. Parameter changes and data entry can be made using the rotary knob.
Instrument settings can be stored in the instrument flash memory.
Automatic calibration of the unit can be performed in seconds from the front panel, without using expensive instrumentation or calibration services.

Standard Waveforms

The wide choice of build-in standard waveforms gives instant access to frequently used test signals.
The standard waveforms are: sine, triangle, square, ramps and pulses.
AM and FM modulation are available with programmable internal or external signals.

Programming

The instrument can be remotely controlled by the build-in RS-232C interfaces. All parameters, modes and functions are programmable.

MODEL 325 - SPECIFICATIONS

DESCRIPTION

The **MODEL 325** is a Programmable **DDS Function Generator**, generating Sine, Square, Triangle and Ramp up and down.

OPERATING MODES

Continuous: Output continuous at programmed parameters.
Triggered: Output quiescent until triggered by an internal, external or manual trigger, then one waveform period is generated at the programmed point rate, amplitude and offset. .
Gated: Same as triggered mode except waveform is executed for the duration of the gated signal. The last waveform period started is completed.

FREQUENCY CHARACTERISTICS

Sine: 0.01 Hz to 15 MHz.
Square: 0.01 Hz to 15 MHz.
Triangle: 0.01 Hz to 2 MHz.
Accuracy: 0.005 % (50 ppm).
Resolution: 6 digits or 10mHz.

OUTPUT CHARACTERISTICS

Amplitude Range: 10mV-10Vp-p into 50 Ω, 20mV-20Vp-p, open
Resolution: 3 digits (1000 counts)
Accuracy: ±2% ±20mV of the programmed output.
Flatness: 0.5dB at 1MHz
1dB at 15 MHz
Offset Range: ±4.5V into 50Ω in the 1.01V-10V amplitude range.
Offset Resolution: 3 digits, 10 mV.
Offset Accuracy: ±2% ±10mV.
Output Impedance: 50Ω.
Protection: The instrument is protected against short circuit to ground or to any voltage practically available in electronic laboratories.

WAVEFORM CHARACTERISTICS

Harmonic Distortion:

DC -20KHz	-50dBc
20KHz-100KHz	-45dBc
100KHz-1MHz	-40dBc
1MHz-20MHz	-30dBc

Spurious: DC-1MHz, -55dBc
Square Rise/Fall Time: < 25 ns (10% to 90%) at full amplitude into 50 Ω.
Variable Duty Cycle:
Square: 20% to 80% to 2MHz
Triangle: 10% to 90% to 2MHz.

Symmetry: at 50% ± 1%.

MODULATION CHARACTERISTICS

Amplitude Modulation: Internal 400 Hz, 800 Hz, 1 KHz and 3 KHz sine wave, square or triangle, variable depth from 0% to 100%. External: 5 Vp-p for 100% modulation.
Frequency Modulation: Internal 400 Hz, 800 Hz, 1 KHz and 3 KHz sine wave, square or triangle. External: 5 Vp-p for 100% deviation.

SWEEP CHARACTERISTICS

Sweep Shape: Linear and Log.
Sweep Time: 10 ms to 50 s.

INPUTS AND OUTPUTS

Sync Output: Positive TTL pulse at selected frequency, 50 Ω impedance.
Trigger Input: TTL compatible, 1KΩ nominal impedance. Max. rate 1MHz, Minimum width 100ns.
Modulation Input: 5 Vp-p for 100% modulation, 10 KΩ input impedance, DC to >20 KHz bandwidth.

INTERNAL TRIGGER

Repetition: 10 us – 10 s.
Resolution: 4 digits
Accuracy: ±0.005%

COUNTER CHARACTERISTICS

Range: 5Hz to >75MHz,
Resolution: Auto ranging, up to 8 digits.
Accuracy: +/- 50 ppm +/- 2 digits.
Sensitivity: 35mV RMS, typical.

INTERFACE

RS-232

GENERAL

Store memory: 20 full panel settings at power-off
Power Requirements: 90V-264V, 30 VA max.
Dimensions: Height: 88 mm (3.5 in)
Width: 213 mm (8.4in)
Length: 210 mm (8.3 in)
Weight: 2.5 Kg,
Operating Temperature: 0 °C to 50 °C
Humidity: to 95% RH, 0 °C to 30 °C
EMC: EN55011, EN55082.
Safety: EN61010.
CE Labeled

NOTES

Specifications are verified according to the performance check procedures in the technical manual. Specification not verified in the manual are either explanatory notes or general performance characteristics only.

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