Performance Specifications:

Frequency Characteristics (Standard Waveforms)

Sine	-	1 µHz to 50 MHz
Square	-	1 µHz to 50 MHz
Triangle, Ramp	-	1 µHz to 5 MHz
Pulse	-	.5 mHz to 25 MHz
Accuracy	-	0.001% (10 ppm)
Resolution	-	12 digits or 1µHz

Arbitrary Characteristics

Waveform length	-	2 points to 4 M points
Vertical resolution	-	14 bits
Sampling rate	-	.01 S/s to 125 MS/s (8 ns to 100 s)
Accuracy	-	0.001% (10 ppm)
Resolution	-	4 digits or 1 ps

Output Characteristics

Amplitude Range	-	10 mV to 10 Vp-p into 50 Ω
Resolution	-	3 digits (1000 counts)
Amplitude Accuracy	-	±1% ± 20 mV of the programmed output from 1 V-10 V
Flatness	-	0.1 dB to 10 MHz
	-	1.0 dB to 50 MHz
Offset Range	-	±4.99 V into 50 Ω, dependent on the amplitude setting
Offset Resolution	-	10 mV with 3 digits resolution
Offset Accuracy	-	±1% ± 10 mV into 50 Ω
Output Impedance	-	50 Ω
Output Protection	-	The instrument output is protected against short circuit or accidental voltage practically available in electronic laboratories.
Filters	-	9-pole Elliptic and 5-pole Bessel filters

2730 - Specifications cont'd:

Waveform Characteristics

Harmonic Distortion	-	DC-20 kHz -65 dBc
	-	20 kHz-100 kHz -60 dBc
	-	100 kHz-5 MHz -45 dBc
	-	5 MHz-50 MHz -30 dBc
Spurious	-	DC-1 MHz < -65 dBc
Variable Duty Cycle	-	20% to 80% to 10 MHz, 40% to 60% up to 30 MHz
Symmetry at 50%	-	< .5%
Aberrations	-	< 3% of p-p amplitude ± 50 mV.
Square Rise/Fall Time (10-90%) V_{max} into 50 Ω	-	< 6 ns

Operating Modes

Continuous	-	Output continuous at programmed parameters.
Triggered	-	Output quiescent until triggered by an internal or external trigger, then one waveform cycle is generated to programmed parameters. Up to 20 MHz trig rate for ARB waveforms and 10 MHz in DDS mode.
Gate	-	Same as triggered mode, except waveform is executed for the duration of the gate signal. The last cycle started is completed.
Burst	-	2 - 999,999 cycles
Phase	-	-360° to +360°, 0.1° resolution
Trigger Source	-	Trigger source may be internal, external or manual.
Internal Trigger Rate	-	0.01 Hz-1 MHz, 4 digits resolution, ±0.002% accuracy

Modulation Characteristics

Amplitude Modulation		
- Internal:	-	0.01 Hz-20 kHz sine wave, square or triangle Variable modulation from 0% to 100%.
- External:	-	5 Vp-p for 100% modulation, 10 kΩ input Z.
Frequency Modulation		
- Internal:	-	0.01 Hz-20 kHz sine wave, square or triangle
- External:	-	5 Vp-p for 100% deviation, 10 kΩ input Z.
FSK		
- Internal rate	-	0.01 Hz-1 MHz
- External	-	1 MHz max

2730 - Specifications cont'd:

Sweep Characteristics

Sweep Shape:	-	Linear and Logarithmic, up or down
Sweep Time:	-	10 ms to 500 s.
Sweep trigger	-	internal, external, continuous or burst

Variable Phase

Range	-	+360 ° to -360 °
Resolution	-	0.1 °

Inputs and Outputs

Trigger In	-	TTL compatible.
	-	Maximum rate 20 MHz.
	-	Minimum width 20 ns.
	-	Input impedance 10 kΩ nominal.
Sync Out	-	+TTL pulse at programmed frequency, 50 Ω source Z.
Modulation In	-	5 Vp-p for 100% modulation.
	-	10 kΩ input impedance.
	-	DC to >50 kHz minimum bandwidth.
Reference IN/OUT	-	10 MHz, TTL compatible I/O, 50Ω Output Z, 1 kΩ Input Z
Marker Out	-	A positive TTL pulse user programmable in arbitrary waveform mode. 50 Ω source impedance.
Summing Input	-	5 Vp-p signal for full-scale output, 500 Ω input Z.

Computer Interfaces:

GPIB	-	IEEE 488.2 SCPI compatible
RS-232C	-	115k baud, max.

2730 - Specifications cont'd:

General Specifications

Settings Storage	-	49 user defined, non-volatile settings
Arbitrary memory	-	4 MB in flash memory
Dimensions	-	Width = 8.4 in. (213 mm) - Height = 3.5 in. (88 mm) - Depth = 10.8 in. (275 mm)
Weight	-	5.51 lbs. (2.5 Kg.)
Power	-	< 50 VA max.
Supply Voltage	-	110 V/220 V (90 V to 264 VAC)
Line Frequency	-	50/60 Hz (47 Hz to 63 Hz)
Operating Temperature	-	32°F to 122°F (0°C to +50°C)
Storage Temperature	-	-4°F to 158°F (-20°C to +70°C)
Humidity	-	90% RH, 32°F to 86°F (0°C to 30°C)
EMC	-	According to EN55011 class B for radiated and conducted emissions.
ESD Immunity	-	According to EN55082
Safety Specifications	-	According to EN61010 - CE certified

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