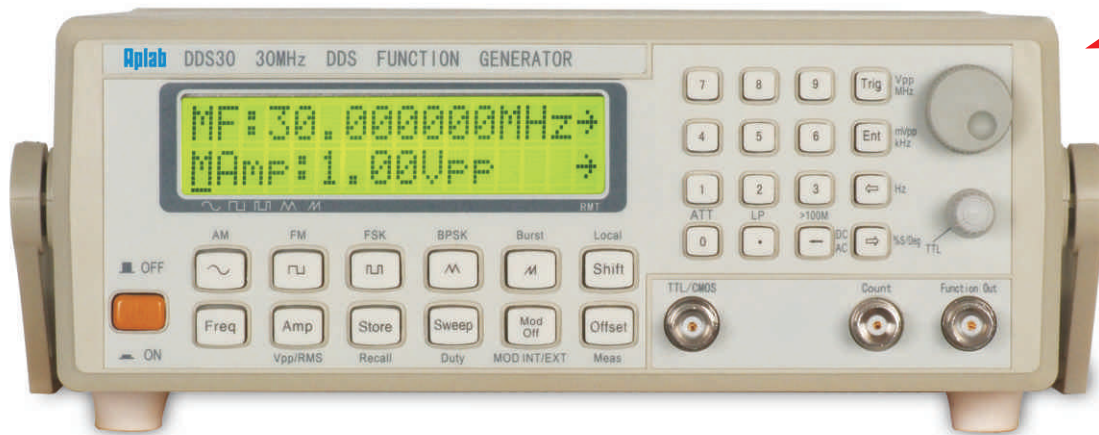


## 30MHz / 50MHz / 80MHz DDS Function Generator



Based on direct Digital Synthesis Technology, also with the use of LSI, CPLD for waveform management, it gives high frequency stability output same as that of the internal crystal Oscillator for more accurate measurement. It gives more than 30 nos., of different waveform including sine, square, pulse, triangle, saw-tooth, TTL, AM, FM, PSK, BPSK, and burst sweep signal etc. It totally meets various kinds of test requirements. It is ideal test equipment for R&D engineers, in electronic laboratory, production line, education and scientific research.

### FEATURES

- Using DDS Technology, Frequency Stability  $\pm 2.5$  ppm (Normal Temperature)
- Using LSI, CPLD for Waveform Management, more than 30 waveforms available
- 30MHz / 50MHz / 80MHz Frequency Output
- Versatile Waveforms : Sine, Square, Triangle, Saw-tooth, Pulse and TTL Outputs
- AM, FM, FSK, BPSK Modulation, Burst and Sweep Mode
- Internal / External Modulation
- 2 Channels Output and Optional 50Hz Output
- 20Vp-p Output Level
- Variable DC Offset Control
- Low Distortion for Sine Waveform better than 0.1%
- Variable Symmetry for Generating Saw-tooth and Pulse Waveforms
- Max. 8 Digits LCD Display
- Memory Store / Recall Function
- Built-in RS-232 Interface USB (Optional) / GPIB Interface (Optional)
- Built in 100MHz Counter, 1.5GHz Counter (Optional)

## Technical Specifications

	DDS30	DDS50	DDS80
<b>Output Waveform</b>	Sine, Square, Pulse, Triangle, Saw-tooth, TTL, CMOS and Sweep Signals.		
<b>Modulation Signal</b>	Sine plus {+Int./Ext : AM, +Int./Ext FM, +Int/Ext. FSK, +Int./Ext. BPSK}		
<b>Combination</b>	Square plus {+int./ext:FM, +int./ext. FSK, +int./ext. BPSK}, Pulse plus {+int./ext:FM, +int./ext. BPSK, int./ext. BURST}, Triangle Plus {+int./ext.:AM., +int./ext:FM}, Saw-tooth plus {+int./ext:AM., +int./ext.:FM}, 1KHz internal modulation, 50Hz output (Option) etc., more than 30 waveforms.		
<b>Output Frequency</b>			
Sine Wave	10mHz ~ 30MHz	10mHz ~ 50MHz	10mHz ~ 80MHz
Square / Pulse	10mHz ~ 10MHz		
Triangle / Saw tooth	10mHz ~ 100KHz		
Output Level	Open circuit 20Vp-p upto 10MHz. 6Vp-p upto 30MHz.	Open circuit 20Vp-p upto 10MHz. 6Vp-p upto 30MHz, 2Vp-p upto 50MHz. Open circuit 20Vp-p upto 10MHz. 6Vp-p upto 30MHz, 2Vp-p upto 50MHz and above.	
Best Resolution	10μHz.		
Frequency Stability / Temp. Coeffi.	<50ppm (room temperature), <5ppm/°C.		
<b>Output</b>	Main function output, sync. TTL/CMOS output, audio signal sync. output, and 50Hz output (optional).		
Mode of Output Signal	Fixed frequency, Sweep, AM, FM, FSK, BPSK, BURST, TTL.		
Output Impedance	50Ω ±5%.		
<b>Frequency Response</b>			
Sine wave	±10% (<3MHz, 20V p-p), ±20% (<10MHz, 20Vp-p) / Distortion : <0.15% (<100kHz >=10Vp-p).		
Square and Pulse	Better than ±20% (<1MHz, 20Vp-p); better than ±30% (<3MHz, 20Vp-p).		
Audio Output	100mVp-p to 6Vp-p (output impedance 600Ω), 50Hz signal 3Vp-p ±1Vp-p (optional).		
Output Attenuator	Minimum output level is 2mVp-p.		
Max DC Bias	-9.99V ~ 9.99V (2.01V ~ 6.32V, ≤20MHz).		
Triangle Linear Offset	Better than 1% (<50kHz), better than 2% (50kHz) (Main Function).		
<b>Internal Sweep</b>	Full Scale Sweep : Frequency 10ms to 5s.		
<b>Modulation Characteristic</b>			
Modulation Frequency	Internal : 1KHz and external <10KHz for AM and <30KHz for FM, FSK, BPSK, BURST, TTL.		
AM	Sine, Input 1.8Vp-p, Frequency <10KHz, (Modulation Adjustable).		
AM Depth	0 ~ 110% adjustable (10Vp-p, ≤1KHz modulation Frequency) and 0 ~ 30% adjustable (10Vp-p, ≤10KHz modulation Frequency).		
FM	Sine, Input 1.8Vp-p, Frequency <30KHz, (Adjustable Modulation).		
FM Deviation	0 ~ >10% adjustable (<30KHz modulation frequency).		
FSK	Full frequency band settable.		
BPSK	Phase set range 0 ~ 360°.		
BURST	Burst internal arbitrary pulse frequency 1 to 15 output pulses.		
TTL Level	Input Pulse TTL Level. Frequency <30KHz.		
Internal Trigger	Keying single trigger.		
External Trigger	Single or continuous trigger; the external input frequency must be more than 50 times lower than that of the internal pulse frequency for more than 50 times (duty factor 50% ±10%).		
<b>External Reference</b>			
Frequency	10MHz ±50KHz, Amplitude 300mVrms ~ 1Vrms.		
<b>Built-in Counter</b>			
Range	0.5Hz to 100MHz, 1.5GHz (Optional).		
Sensitivity	0.5Hz ~ 5Hz, 100mVrms; 5Hz ~ 100MHz 50mV rms.		
<b>Microcomputer Function</b>	YES		
<b>Interface Function</b>	RS232/485, USB (Optional), GPIB (Optional).		
<b>Storage / Call Function</b>	Register used for storage / call of front panel states.		
<b>Power Consumption</b>	220V ±10%, 50Hz ±10% <30VA.		
<b>Environmental Requirements</b>	Conform to the environmental requirement for electronic test instruments of group II and transportation condition of class 3 specified in standard GB6587.		
<b>Storage Temperature</b>	-10°C ~ +60°C.		
<b>Operating Temperature</b>	0°C ~ +45°C.		
<b>Dimensions &amp; Weight</b>	235 (W) x 90 (H) x 250 (D) in mm, 3 Kg. approx.		
<b>Standard Accessories</b>	1. Mains Cord - 1 No. 2. Instruction Manual - 1 No. 3. BNC-BNC Cable - 1 No. 4. RS232-Cable - 1 No. 5. Software - 1 CD 6. RS232 - USB - 1 No.		
<b>Optional Accessory</b>	50 ohms Termination		

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