

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## DDS 雙輸出數位信號產生器

## TFG3500E 系列

- 最大頻率輸出 5MHz/10MHz/15MHz/20MHz
- 3.5 英寸 TFT LCD 顯示
- 採用先進 DDS 技術
- 最小輸出 1mV (50Ω) 穩定波形
- 0.1%脈衝占空比解析度
- 32 種標準或內部存儲的固定波形
- 40 組面板設定存儲及呼叫
- 數位按鍵和旋鈕輸入
- 過電壓、過電流、輸出短路、反灌電壓保護
- 採用 SMT 生產技術，可靠性高



### Specifications

型 號	TFG-3505E	TFG-3510E	TFG-3515E	TFG-3520E
	40mHz~5MHz	40mHz~10 MHz	40mHz~15 MHz	40mHz~20 MHz
<b>Waveform (CHA)</b>				
Waveform types	32 types waveforms, including Sine, Square, Pulse, etc.			
Waveform length	1024 points			
Vertical resolution	8 bits			
Sampling rate	100MSa/s			
Sine harmonic distortion	≥40dBc (<1MHz, ) ≥35dBc (1MHz~20MHz)			
Sine wave total distortion	≤1% (20Hz~200kHz)			
Square wave	Rise/fall edge time: ≤35ns Overshoot: ≤10% Duty cycle: 1%~99%			
<b>Frequency (CHA)</b>				
Frequency range	Sine wave: 40mHz~Max.frequency Other waveforms: 40mHz~1MHz			
Resolution	40mHz			
Accuracy	±(5×10 <sup>-6</sup> +40mHz)			
Stability	±5×10 <sup>-6</sup> /3 hours			
<b>Amplitude (CHA)</b>				
Amplitude range	2mVpp~20Vpp, 40mHz~10MHz (high impedance) 2mVpp~15Vpp, 10MHz~15MHz (high impedance) 2mVpp~8Vpp, 15MHz~20MHz (high impedance)			
Resolution	20mVpp (amplitude>2Vpp), 2mVpp (amplitude<2Vpp)			
Accuracy	±(1% +2 mVrms) (high impedance, RMS, frequency 1kHz)			
Stability	±0.5% / 3 hours			
Flatness	±5% (frequency of 10MHz or below ) ±10% (frequency above 10MHz)			
Output impedance	50Ω			
<b>DC Offset (CHA)</b>				
Offset range	±10V (high impedance, attenuation 0 dB)			
Resolution	20mVdc			
Accuracy	±(1% + 20mVdc)			
<b>Sweep (CHA)</b>				
Linear sweep on frequency or amplitude				

Sweep range	Free to set starting point and end point
Sweep step	Higher than any value of the resolution
Sweep rate	10ms~60ms/step
Sweep direction	Up, Down, Up-Down
Manual sweep	Step/time
<b>Frequency Modulation (FM) (CHA)</b>	
Carrier signal	CHA waveforms
Modulating signal	Internal signal of CHB or External signal
Modulating deviation	0%~20%
<b>Shift Keying (CHA)</b>	
FSK	Free to set carrier frequency and hop frequency
ASK	Free to set carrier amplitude and hop amplitude
PSK	hop phase 0~360°, max.resolution 1°
Alternative rate	10ms~60s
<b>Burst (CHA)</b>	
Carrier signal	CHA signal
Trigger signal	TTL_A signal
Burst counts	1~65000 cycles
Burst mode	Internal TTL, External, Single
<b>CHB output Characteristics</b>	
Waveform	32 types waveforms, including Sine, Square, Pulse
	Length: 1024 points
	Sampling range : 12.5Msa/s
	Amplitude resolution : 8 bits
	Square wave duty cycle : 1%~99%
Frequency	Range: Sine wave: 10mHz~1MHz; Other waveforms: 10mHz~100kHz
	Resolution: 10mHz
	Accuracy: $\pm (1 \times 10^{-5} + 10 \text{ mHz})$
Amplitude	Range: 50mVpp~20Vpp (high impedance)
	Resolution: 20mVpp
	Output impedance : 50 $\Omega$
Burst	Carrier single: channel B signal
	Trigger signal: TTL_B signal
	Burst count : 1~65000 cycles
	Burst mode : Internal, External, Single
<b>TTL output</b>	
Waveform characteristics	Square wave, rise/fall time $\leq 20\text{ns}$
Frequency characteristics	40mHz~1MHz
Amplitude characteristics	TTL and CMOS compatible, low<0.3V, high>4V
<b>Optional parts</b>	
Frequency counter	Testing frequency range: 1Hz~200MHz
	Input signal amplitude: 100mVpp~20Vpp
Power amplifier	Max. output power: 7W (8 $\Omega$ ), 1W (50 $\Omega$ )
	Max. output voltage: 22Vpp
	Frequency bandwidth: 1Hz~200kHz
Remote interface	RS232 serial interface
<b>Common characteristics</b>	
Operation characteristics	Key operation for all functions, menu display, rotary dial adjustment
Display	Display: TFT, English, Chinese (simplified), Chinese (traditional)
Power requirements	Power Requirements: AC220V (1 $\pm$ 10%) / AC110V (1 $\pm$ 10%)
	Frequency: 50Hz/60Hz(1 $\pm$ 5%)
	Power Consumption: <45VA
Environmental condition	Temperature: 0 ~ 40 $^{\circ}\text{C}$
	Humidity: <80%
Dimension	415x295x195 (mm)
Weight	3.5 kg

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