

**MOTECH**

**FG708S**

**Direct Digital Synthesized  
Multi-Functions Generator**

**MOTECH**



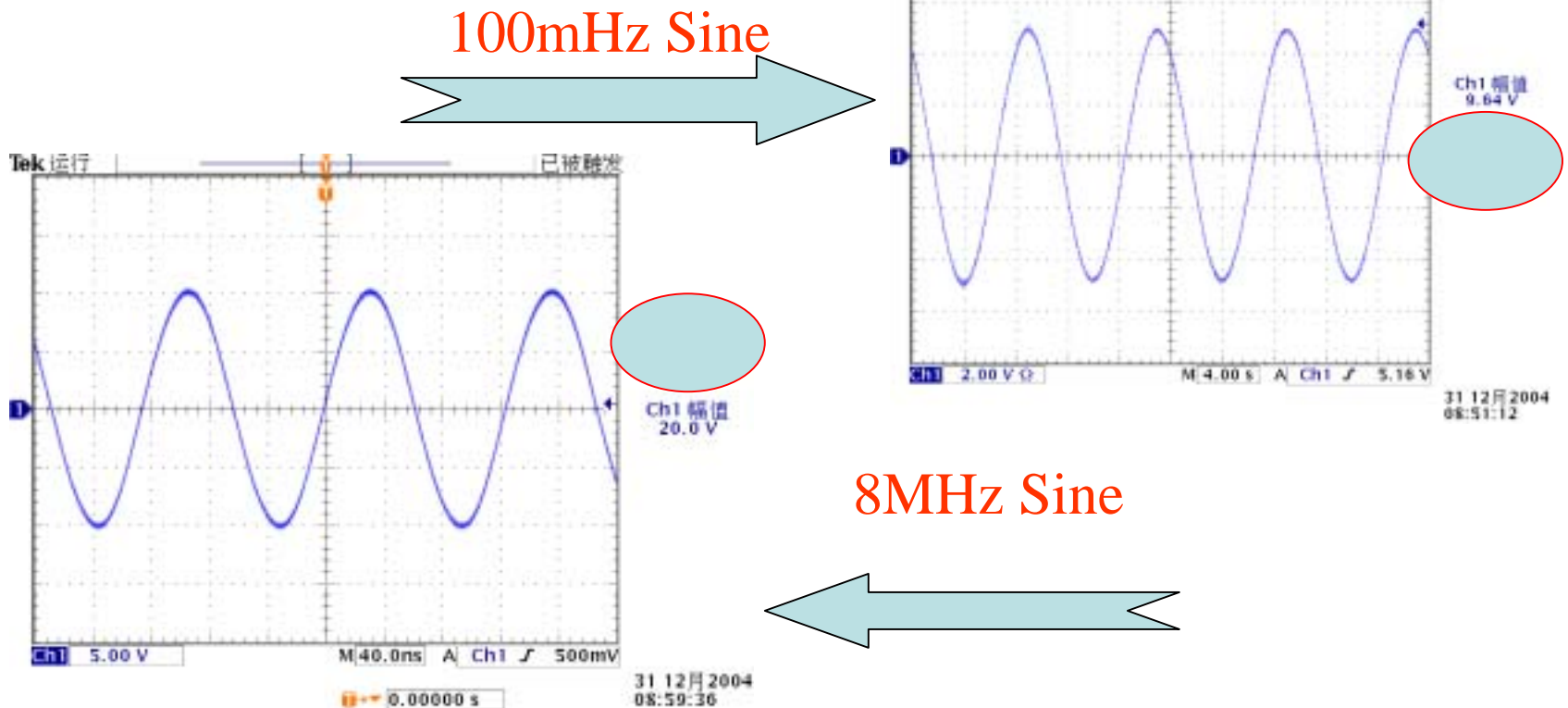
**Present by**

**Collins Chucks.**

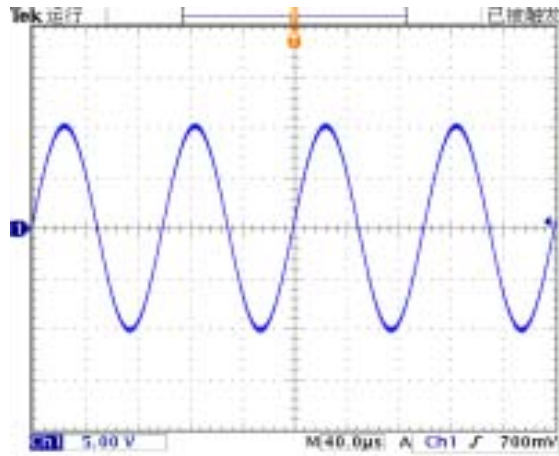
*Modern Technology for a Sustainable World*

# Frequency features

- Frequency range 100mHz~8MHz
- Resolution 100mHz

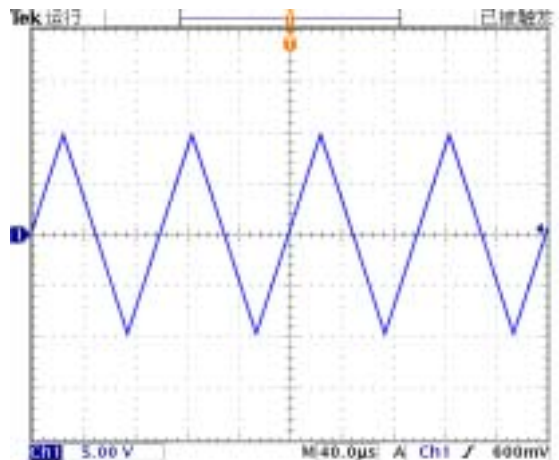
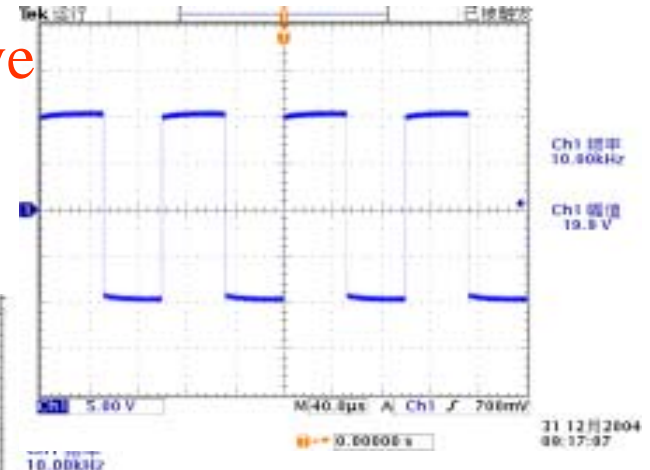


# Output waveform



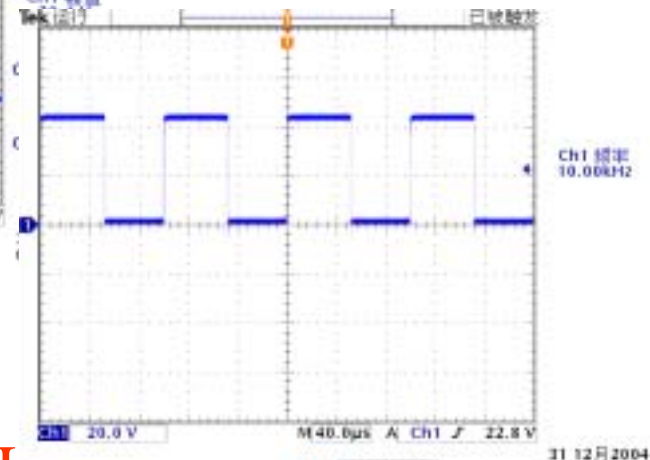
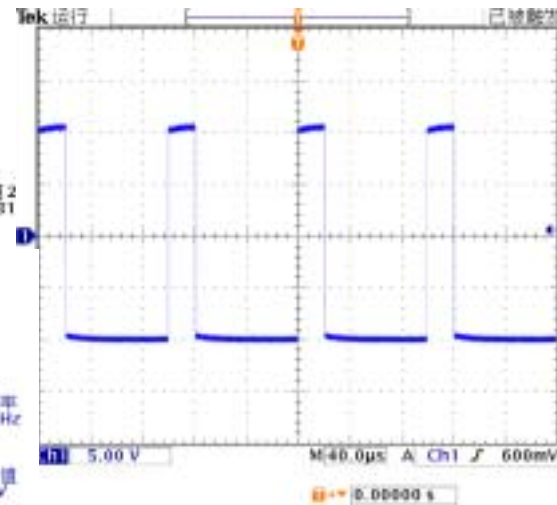
Sine wave Square wave

Pulse wave



Triangle Wave

31 12月2004 09:19:41



TTL

# Output amplitude

- Output amplitude
  - 1mV to 20Vp-p (open circuit)
  - 0.5mV to 10Vp-p (50 $\Omega$  load)
- Amplitude resolution: 1mV
- Output Attenuation: 0dB, 20dB, 40dB, 60dB

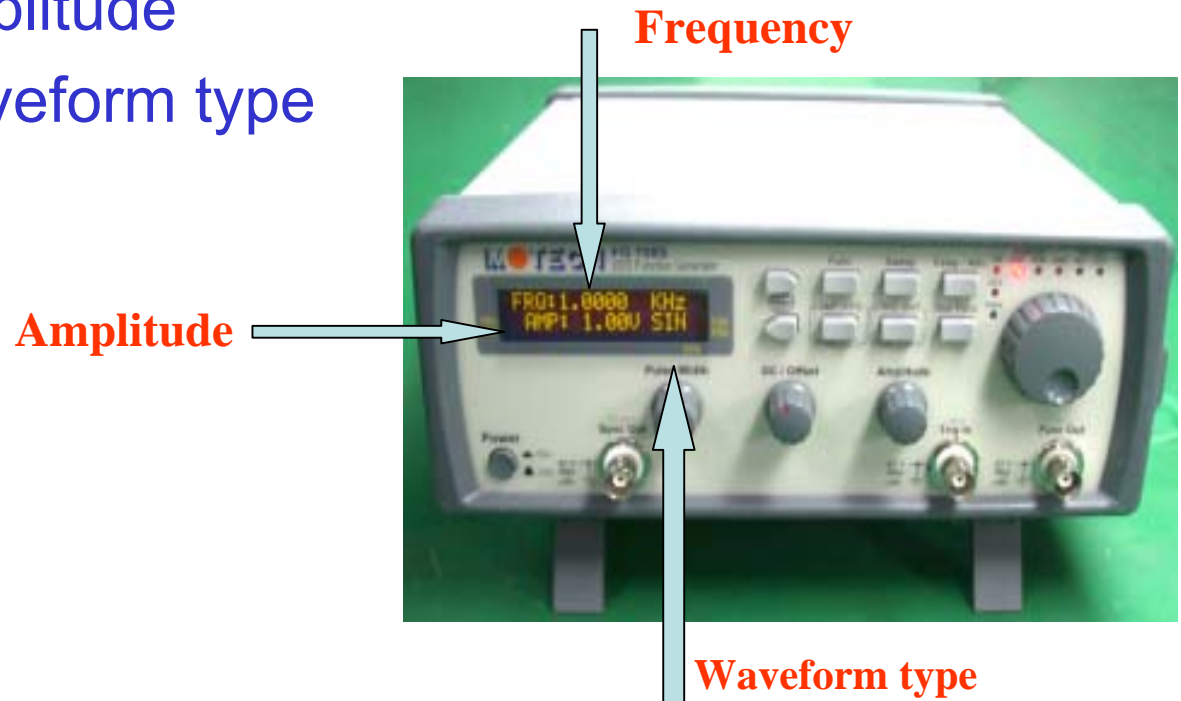
**Low noise, Low distortion**

0.5 mV  
Perfect waveform!



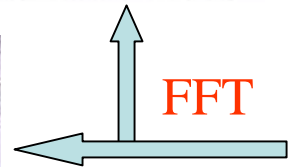
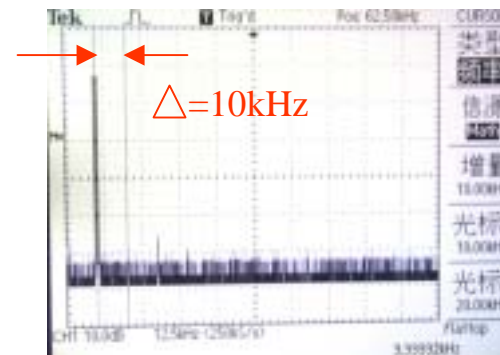
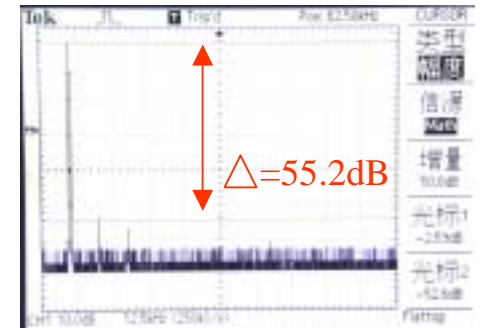
# All information display simultaneously

- Direct display frequency
- Direct display amplitude
- Direct display waveform type

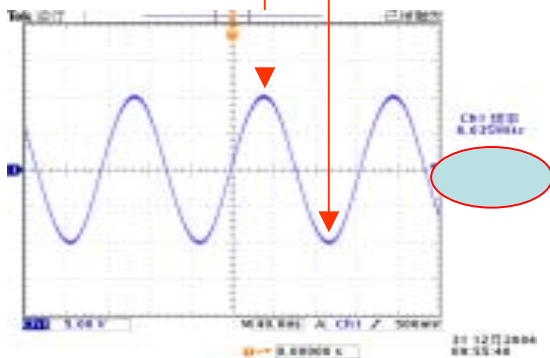


# Sine Wave

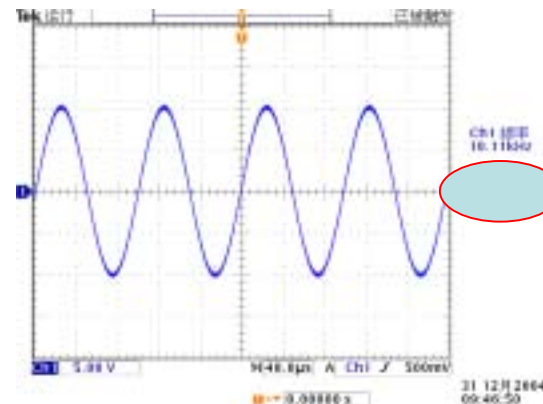
- Signal/Noise ratio > 55dB typical
- Stable amplitude even in high frequency
- Without any distortion on peak



8MHz Sine  
20Vpp



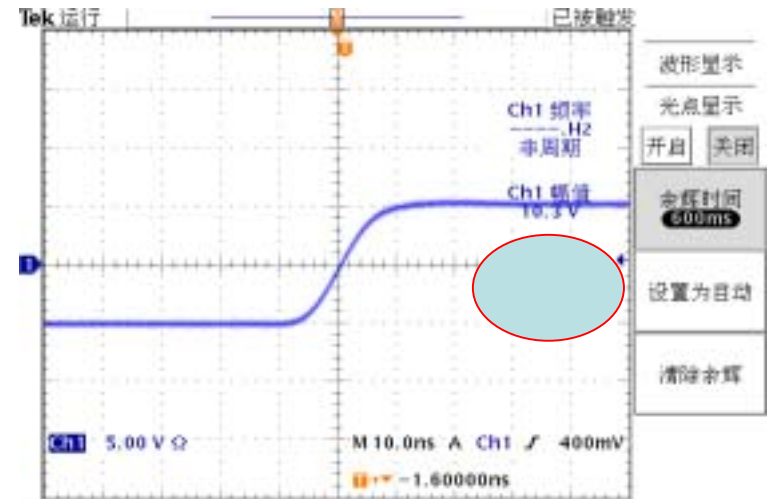
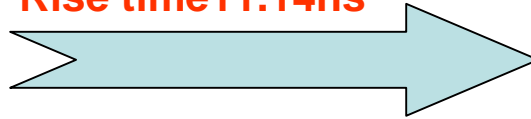
10kHz Sine  
20Vpp



# Square Wave

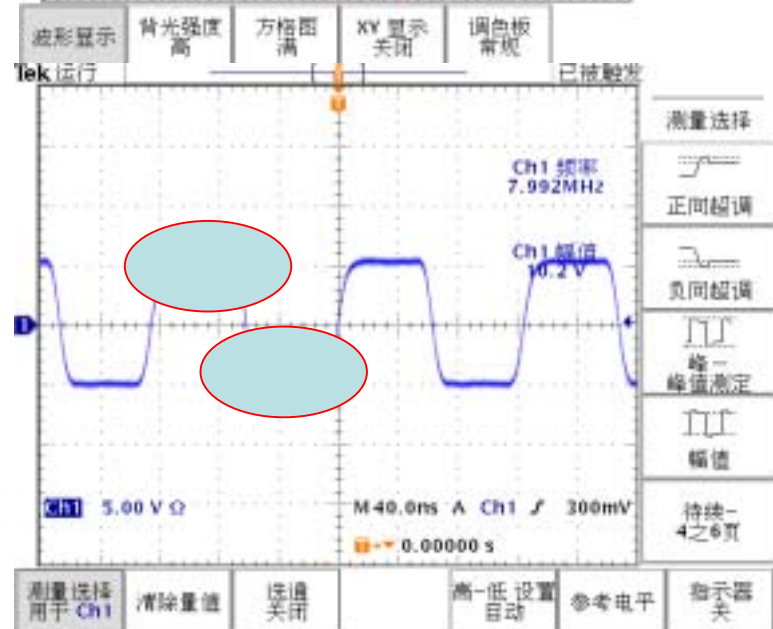
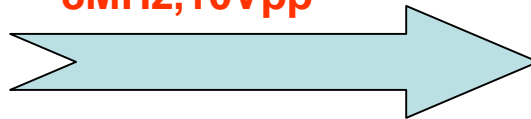
- Rise/Fall time  $\leq 12\text{ns}$   
(10Vpp 50 $\Omega$  load)

Rise time 11.14ns



- Overshoot  $< 5\%$  of  $V_p$   
(10Vpp 50 $\Omega$  load)

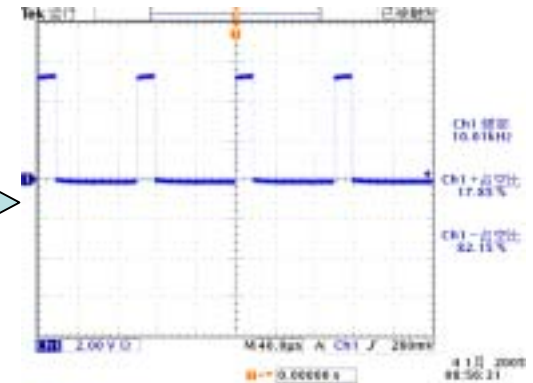
8MHz, 10Vpp



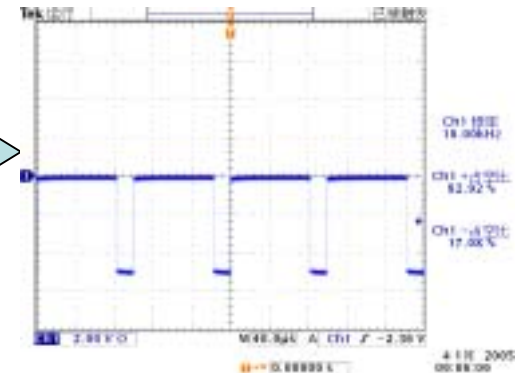
# Pulse Wave

- Frequency range: 100mHz~8MHz
- Amplitude: 0~10V/0~ -10V /± 10V
- Duty cycle:  
100mHz~5MHz : 20% to 80%  
5MHz~8MHz : 40% to 60%
- Frequency stable while adjust duty cycle
- Duty cycle display

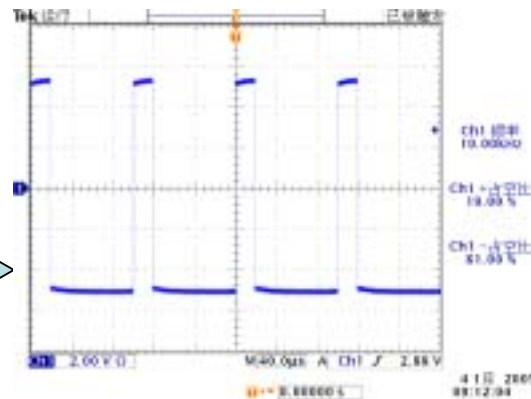
Positive Pulse 18%



Negative Puls 82%



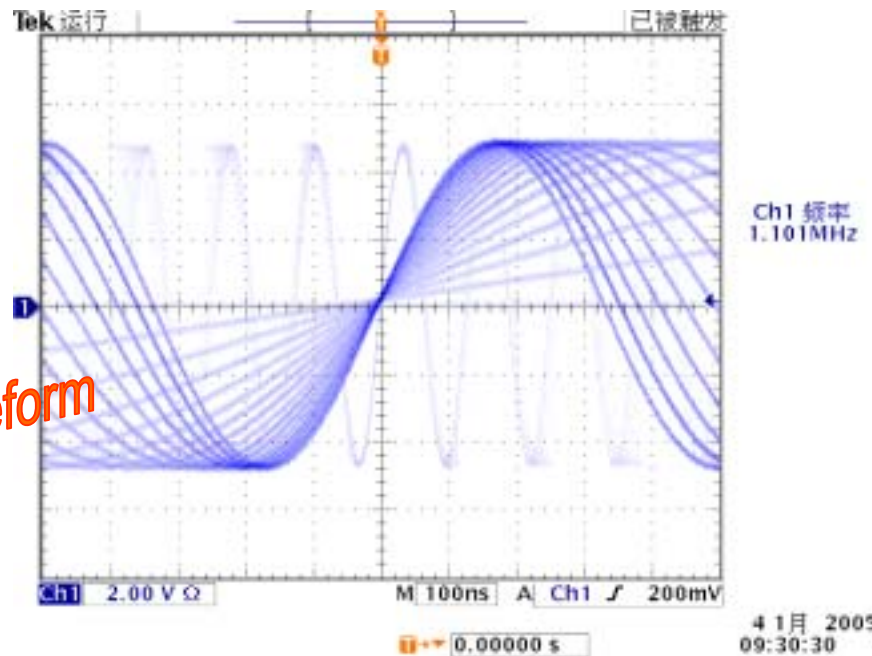
Positive/Negative Pulse



# Digital set Linear/Log sweep function

- Sweep type: up , down , up-down
- Start frequency setting
- Stop frequency setting
- Sweep step setting

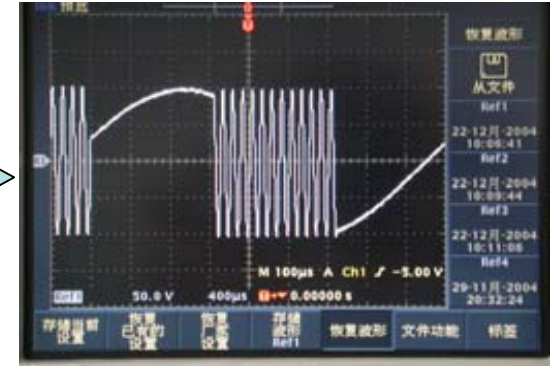
*Sweep waveform*



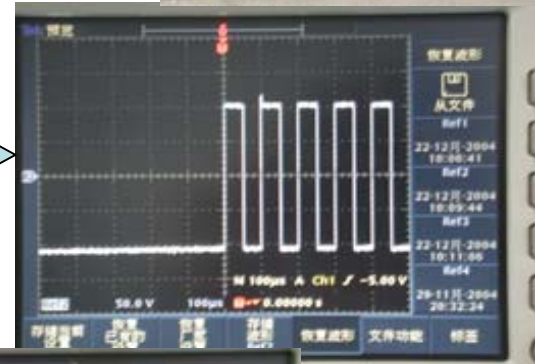
# FSK Modulation

- Sine, Square, Triangle
- Internal: FSK 400/1 K Hz
- External trigger
- FSK “0” frequency setting
- FSK “1” frequency setting

Sine



Square

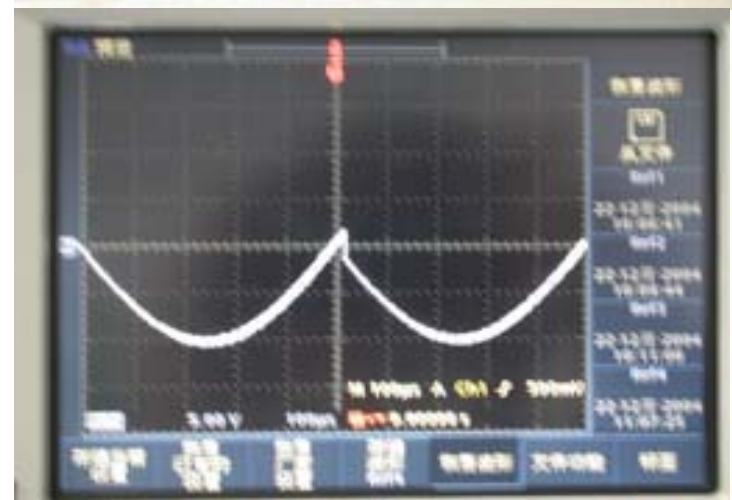
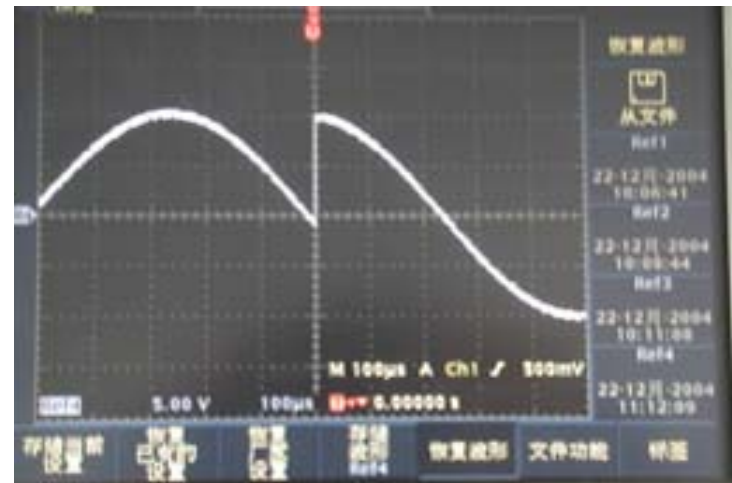


Triangle



# PSK Modulation

- Sine, Square, Triangle
- Internal: PSK 400/1K Hz
- External trigger
- PSK “0” phase Internal  $0^\circ$
- PSK “1” phase setting:  $0^\circ \sim 360^\circ$



# Strongest Protection

Short Circuit Protection



Reverse Voltage protection  
up to 20Vpeak!!!

**Best Solution for Bench**

# FG708S DDS Function Generator

- Comprehensive functions
- Competitive price

