

## GOS-630FC 30MHz Analog Oscilloscope

### New Product Announcement

**GOOD WILL INSTRUMENT** is announcing a brand new 30MHz Analog Oscilloscope, GOS-630FC, to the global market. Besides the functions of a basic oscilloscope, GOS-630FC is equipped with more useful features to create a new benchmark for the oscilloscopes within the same category. The new innovative functions, including **LCD Readout Display, Frequency Counter, and Auto Time-Base setting**, are provided as standard features of the product. GOS-630FC, with a bandwidth elevated to 30MHz and additional valuable features, is priced at the level of a fundamental oscilloscope. The add-on value without additional cost make GOS-630FC a most beneficial choice among the entry-level analog oscilloscopes available in the market today.



#### **1mV/div High Vertical Sensitivity**

GOS-630FC, with high vertical sensitivity up to 1mV/div, is able to capture the small signals of the input source. Wide ranges of vertical, horizontal, and trigger settings make GOS-630FC a full-fledged oscilloscope. Additional functions such as XY mode display, MAG function (Time based Magnified), and Z-axis Input extend the application range of GOS-630FC to both the education and industry fields.

#### **LCD Readout Display & Real-Time Frequency Counter**

Vertical/Horizontal settings and input signal Frequency of GOS-630FC are shown on a bright and clear LCD display simultaneously. Users could easily know the current setting status from the small LCD screen instead of checking the knob positions. GOS-630FC automatically counts the frequency of the input signal and shows this reading on the display. This is a good feature rarely seen on a basic oscilloscope.



#### **Auto Time-Base Intelligent Operations**



GOS-630FC provides "Auto Time-Base" function, which is seen only in digital or high-end analog oscilloscopes, to automatically select the appropriate horizontal time base for waveform display. Buzzer alarm reminds users when the Vertical/Horizontal setting reaches the maximum or minimum boundary.

#### **High Product Quality with Economic Price**

GOS-630FC is a highly reliable product guaranteed by an ISO certified manufacturing system. Hundreds of quality tests have to be passed upon completion of the manufacturing of each unit. Economic price and remarkable functions like LCD readout display, 5 digits real-time counter, and Auto Time-base make GOS-630FC a product with the best price vs. performance ratio in the oscilloscope market.

## Key Features

- 1mV/div high vertical sensitivity for small signal measurement
- Internal 5 digits counter for easy frequency measurement
- LCD readout display for Vertical/Horizontal/Frequency measurement.
- Auto Time-Base function
- Buzzer alarm for settings outside the range
- Rich Vertical settings: Ch1/Ch2/Dual/Add
- Complete trigger functions: AUTO, NORMAL, TV -V, TV-H
- Convenient functions for general applications: XY mode, Z-axis input, External Trigger Input, etc.

## GOS-630FC Product Position

1. Full functional 30MHz analog oscilloscope with budget price.
2. Unique functions differentiate GOS-630FC from GOS-620 and GOS-620 copier's low cost 20Mz/30MHz analog oscilloscopes.
3. Providing higher performance, reliable quality, global service, and global warranty compared with other low cost analog oscilloscope competitors.

Comparison Table between GOS-630FC and GOS-620: (Blue letter shows better performance)

	GOS-630FC	GOS-620
Bandwidth	DC~ <b>30MHz</b>	DC~20MHz
Vertical Sensitivity	1mV/div ~ 5V/div	1mV ~ 5V/div
Trigger Mode	Auto/Normal/TV-V/TV-H	Auto/Normal/TV-V/TV-H
Horizontal Mode	0.2us/div~0.5s/div	0.2us/div~0.5s/div
LCD Readout Display	<b>Vertical/Horizontal/Frequency</b>	NA
Frequency Counter	<b>5 digital real-time counter</b>	NA
Auto Time-Base	<b>YES</b>	NA
Weight	~8.2kg	~8.2kg
Size	310(W)X150(H)X455(D) mm	310(W)X150(H)X455(D) mm

## Target Markets and Associated Features

- **Education and Training**
  - Dual input, LCD readout display, 5 digits real-time counter, Full Vertical/Horizontal/Trigger settings
- **R&D Design and Verification**
  - 1mV/div high vertical sensitivity, Auto Time-base, LCD readout display, 5 digits real-time counter
- **Maintenance**
  - Auto Time-base, LCD readout display, 5 digits real-time counter, XY mode, Z-axis output

## Market Strategy

1. Introducing GOS-630FC into both educational and industrial fields
2. Introducing GOS-630FC to the existing oscilloscope customers with better functionalities at the similar price.
3. GOS-630FC provides innovative functions, like LCD readout display, 5 digits real-time counter, Auto Time-base, and etc., which make it very attractive to users.
4. The new functions and new outlook are to differentiate GOS-630FC from the Copied products of GOS-620 20-30MHz analog oscilloscopes. GOS-620 continuously serves the market for customers who want 20MHz oscilloscope with the lower cost.
5. All GW Instek partners in the global market are requested to start promotion activities for GOS-630FC after the distributor announcement. The e-files of GOS-630FC Marcom material, including data sheet and NPI presentation material, will be posted on GW Instek's website. Adequate amount of Marcom material hardcopies will be sent to all GW Instek distributors after global market announcement.
6. The mass quantity orders will be shipped from the **End of May**. The plan is to deliver GOS-630FC to distributors within 1 month after receipt of order, so the end user orders could be fulfilled promptly starting from the **End of June**.

## Key Dates for Product Announcement

1. Order queue open (May. 16)
2. Distributor Announcement (May. 16)
3. Global Market Announcement (May. 16)
4. Market Promotion Activities (May through August, 2007 )
5. Demo Units Shipped to Distributors (Beginning of June)
6. Mass quantity order fulfillment (Beginning of July)

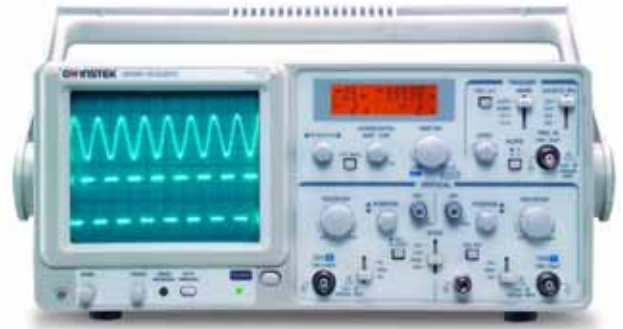
## Service Policy

1. **1 year warranty.** GOS-630FC oscilloscope carries a standard warranty for 1 year.
2. **Service Support.** The service instructions in the Service Manual will help distributors repair defective units promptly. The component level service support is provided by GW Instek to facilitate the repair jobs done at the distributor's site.
3. GW Instek continues to provide the after sales support through its website. The most updated version of service manual and Marcom material of GOS-630FC series will be posted on the distributor area of GW Instek Website at <http://www.gwinstek.com.tw>.

Should you have any questions on the GOS-630FC series announcement, please don't hesitate to contact us.

Sincerely Yours;

Marketing Department  
Good Will Instrument Co., Ltd  
No. 7-1, Jhongsing Road, Tucheng City,  
Taipei County, 236, Taiwan  
Email: [marketing@goodwill.com.tw](mailto:marketing@goodwill.com.tw)



### Specification

VERTICAL AXIS	Sensitivity	1mV 5V/div, 12 steps in 1-2-5 sequence
	Accuracy	≤ 3%, (1mV/ div, 2mV/ div: ≤ 5%).
	Vernier Vertical sensitivity	To 1/2.5 or less of panel-indicated value
	Bandwidth	DC 30MHz (1mV/div, 2mV/div: DC 7MHz)
	Rise time	Approx. 11.7ns (1mV/div, 2mV/div: Approx. 50ns)
	Input impedance	Approx. 1MΩ // Approx. 25pF.
	Square Wave Characteristics	Overshoot: ≤ 5% (At 10mV/div range)
	Linearity	<±0.1div of amplitude change when waveform of 2 div at graticule center is moved vertically
	Vertical modes	CH1, CH2, DUAL, ADD
	Chopping Repetition Frequency	Approx. 250kHz
	Input Coupling	AC, GND, DC
	Maximum Input Voltage	CAT II 300Vpeak (AC: frequency 1kHz or lower)
	Common Mode Rejection Ratio	50:1 or better at 50kHz sinusoidal wave. (When sensitivities of CH1 and CH2 are set equally)
	Isolation between channels	>1000:1 at 50kHz >30:1 at 30MHz. (At 5mV/div range)
	CH1 signal output	At least 20mV/div at 50Ω terminal. Frequency at least 50Hz to 5MHz
TRIGGERING	Triggering source	CH1, CH2, ALT, LINE, EXT
	Coupling	AC: 20Hz to full bandwidth
	Slope	+ / -
	Sensitivity	20Hz 2MHz: 0.5 div, TRIG-ALT:2 div, EXT : 200mV 2Hz 30MHz: 1.5 div, TRIG-ALT:3 div, EXT : 800mV TV: Sync pulse more than 1 div (EXT: 1V)
	Triggering modes	AUTO, NORM, TV-V, TV-H
EXT TRIGGERING SIGNAL INPUT	Input Impedance	Approx.: 1MΩ // approx. 25pF
	Maximum Input Voltage	CAT II 300Vpeak (AC: frequency 1kHz or lower)
HORIZONTAL AXIS	Sweep Time	0.2μSec 0.5Sec/div, 20 steps in 1-2-5 sequence
	Sweep Time Accuracy	±3%
	Vernier Sweep Time Control	≤1/2.5 of panel-indicated value
	Sweep Magnification	10 times
	×10MAG Sweep Time Accuracy	±5% (20nSec 50nSec are uncalibrated)
	Linearity	±3%, ×10MAG:±5% (20ns and 50ns are uncalibrated)

X-Y MODE	Sensitivity	Same as vertical axis
	Frequency Bandwidth	DC to at least 500kHz
	X-Y Phase Difference	$\leq 3^\circ$ at DC 50kHz
Z AXIS	Sensitivity	5 Vp-p (Positive-going signal decreases intensity)
	Frequency Bandwidth	DC 2MHz
	Input resistance	Approx. 47k $\Omega$
	Maximum Input Voltage	CAT II 300Vpeak (AC: frequency 1kHz or lower)
CALIBRATION VOLTAGE	Waveform	Positive-going Square wave
	Frequency	Approx. 1 kHz
	Duty Ratio	Within 48:52
	Output Voltage	2 Vp-p $\pm 2\%$
	Output Impedance	Approx. 1 k $\Omega$
FREQUENCY COUNTER	Display Digits	Max. 5-digits decimal
	Frequency Range	50Hz~30MHz
	Accuracy	$\pm 0.05\%$ : 50Hz~1kHz, $\pm 0.02\%$ : 1kHz~30MHz
	Measuring Sensitivity	> 2div
LCD	Display	VOLT/div, TIME/div, X-Y MODE, Frequency
	Backlight	Orange
CRT	Type	6-inch rectangular type, internal graticule
	Phosphor	P 31
	Acceleration Voltage	Approx. 2kV
	Effective Screen Size	8 $\times$ 10 div (1 div = 10mm (0.39in))
	Graticule	Internal
	Trace Rotation	Provided
POWER SOURCE	AC115V, 230V $\pm 15\%$ selectable, 50Hz or 60Hz	
STORAGE TEMPERATURE & HUMIDITY	-10 to 70 , 70%RH (Max.)	
ACCESSORIES	Power cord $\times$ 1, Instruction manual $\times$ 1, Probes $\times$ 2	
DIMENSIONS	310 (W) x 150 (H) x 455 (D) mm	
WEIGHT	Approx.8.2kgs (18.0lbs)	

### Ordering Information

GOS-630FC 30MHz 2-Channel Analog Oscilloscope