## **G<u><u><u></u></u>INSTEK**</u>

## <u>GSP-730 3GHz Spectrum Analyzer</u> <u>New Product Announcement</u>

**GW** Instek **GSP-730** is a 3 GHz Spectrum Analyzer developed mainly to fulfill the demands of RF Communication educations. The budget constraint and the lack of teaching tools are normally the two hurdles for schools to draw back from providing good courses for RF communication experiments. GSP-730, featuring full functions a moderate spectrum analyzer should provide, along with GRF-1300 training kit possesses a unique position in the field as **an economic turn-key solution** for 3GHz RF Communication Experiment courses.

### A Turn-key Solution to Clear Away Two Obstacles

**GSP-730**, carrying 3GHz bandwidth and fledged measurement functions, including Autoset, Split Window, Limit Line, ACPR and OCBW etc., is able to install a cornerstone for the advanced educations of Mobile Communications (GSM, 3G, 4G/LTE...), Wi-Fi, Zigbee and RFID in the Electronic or the Communication classes.



both lecture and hands-on training purposes.

GRF-1300, as an optional accessory of GSP-730, is a trainer for basic RF communication experiments.

It is able to generate a baseband signal and a RF carrier signal for the built-in AM and FM communication operations. The baseband signal output includes the selections of Sine, Triangle, and Square waveforms in the frequency range of 100kHz ~ 3MHz, whereas the RF signal output is a frequency-variable Sine wave in the range of 870MHz ~ 920MHz.

Connecting the baseband signal output with AM or FM inputs on the panel, GRF-1300 provides AM or FM signal output respectively using the internal RF signal as the modulation carrier at user's selected frequency.

With its components, GSP-730 Spectrum Analyzer, GRF-1300 Trainer and a PC, properly connected, a tangible system is integrated for performing on-the-fly experiments while the lecture is being given. Using a PC, the teacher can present teaching material with ppt. files and at the same time control GSP-730 and GRF-1300 to perform experiments and get spectrum displays and parameter readings on the PC screen. A ppt. file teaching material, a remote control software, a student's textbook, and a teacher's textbook are available to support this E-teaching system.



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#### Fully-electronic RF training system

The combination of GSP-730 and GRF-1300 forms a fundamental training system for RF communication and telecommunication classes in the universities, colleges, vocational schools, and the training centers of military and private companies. GSP-730 and GRF-1300 together provide an economic solution to clear away two obstacles, budget constraint and the lack of teaching tools, for the installation of an expensive training system.

### An Affordable Spectrum Analyzer for Service and Hobby Applications

In addition to the fulfillment of educational requirements, GSP-730, featured with spilt windows, ACPR, OCBW, Limit Line, Marker Table functions, provides a very high price-performance value for the service and hobbyist applications of RF communications. A full- function 3GHz Spectrum Analyzer at almost an entry-level DSO price, GSP-730 is a product of technological innovation.





#### ACPR, Split window and Limit Line features of GSP-730

The interfaces of GSP-730 play an important role in integrating the whole system. The USB host port supports the flash drive for mass data storage of screen images, and the toner-saving mode is available for reducing the data scale of the saved images. The USB device port and RS-232 interface allow the PC to get access to GSP-730 and GRF-1300 for remote control. The VGA output terminal faithfully transfers the GSP-730 screen image to the external device for large screen display.

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USB device RS-232 VGA Output



The economic solution of GSP-730 and GRF-1300 greatly lowers the budget barriers for providing fundamental RF Communication Educations and facilitate schools with higher feasibility to install more training stations for RF communication experiments.

For advanced educations and higher level applications, a high performance 3GHz Spectrum Analyzer, GSP-930, is available in GWInstek's portfolio for professionals' selection.

Please link the following URL for the details. <u>ttp://www.gwinstek.com/GSP-930</u>



GSP-930 and GSP-730

#### Features and Benefits

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1	Up to 3GHz bandwidth covers the frequency ranges of cell phone (900, <b>1800MHz</b> ), wireless LAN ( <b>802.11b/g/n</b> ), and ISM <b>(2.4GHz)</b>	The majority of commercial application frequency bands are well covered. The investment establishes a firm ground for future extension of further Telecom courses.
2	A rich curriculum for RF signal, AM, and FM measurements is provided.	Students are able to learn from a series of practical RF and communication experiments instead of the conventional soldering training activities.
3	Fully-electronic RF training system	Efficient and friendly teaching material ease teacher's burden in course preparation.
4	Turn-key solution for RF and Communication courses.	A modern RF communication Lab with experiment classes can be established without much effort.
5	Human interface and instrument operations are designed in the way similar to that of professional spectrum analyzers.	Students can easily handle the equipment on their jobs in the future.
6	The affordable price	Establish an RF & communication lab at a DSO cost.

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### Key specifications and Functions

### **GSP-730 Spectrum Analyzer**

- Frequency Range : 150kHz ~ 3GHz
- Autoset Function
- RBW Range : 30kHz, 100kHz, 300kHz, 1MHz
- ACPR/CHPW/OCBW Measurement
- Built-in Limit Line Function
- 5 Markers
- Split Window Function
- Icon State Indication
- 3 Traces in Different Colors
- Support Interface : USB Device/Host, RS-232C
- 5.6" TFT LCD with VGA Output

### **GRF-1300 RF and Communication Trainer**

- Base band Signal :
  - Sine, triangle, square wave
  - Frequency Range: 0.1 ~ 3MHz
- RF Frequency : 870 ~ 920MHz
- AM & FM Modulation
- 5 programmable On/Off Switches and 5 Test Points to Simulate 8 Failure Conditions for Trouble-Shooting Study
- USB Interface to Provide Remote Control

### Curriculum Contents

- Introductions of Frequency domain, time domain, and Spectrum analyzer basics.
- 9 experiments include
  - Operations of Spectrum Analyzer
  - Base band and RF signal measurements
  - AM and FM signal measurements
  - Communication system and product measurements
  - Learning outcome tests
- Auxiliary tools
  - PPT files including all experiments contents
  - Remote control software to control GRF-1300, GSP-730 simultaneously
  - Experiment text books including the student version and the teacher (optional)

For more technical and specification information, please refer to the product brochure of GSP-730 for details.

### Key Dates for Product Announcement

- 1. Distributor Announcement (Sep. 11, 2012)
- 2. Order queue open (Sep. 11, 2012)
- 3. Product and Price Announcement to Global Market (Sep. 11, 2012)
- 4. Market Promotion Activities (Mid-Sep., 2012)
- 5. Demo Units Shipped to Distributors (Mid-Sep. 2012)
- 6. Mass quantity order fulfillment (Mid-Oct, 2012)

### **Service Policy**

- 1. **One (1) year warranty.** GSP-730 Spectrum Analyzer and GRF-1300 RF and Communication system trainer both carry 1 year warranty.
- Service Support. The service instructions in the Service Manual will help distributors repairing defective units promptly. Should the board replacement is necessary to fix the defective unit, the board swapping service support is provided by Good Will Instrument to facilitate the repair jobs done at the distributor's site.

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3. Firmware upgrade through Website. GW Instek continues to provide after sales support through its website. The most updated version of firmware and PC software will be posted on the distributor zone at <a href="http://www.gwinstek.com/GSP-730">http://www.gwinstek.com/GSP-730</a> for free download and then upgraded via USB memory stick.

#### **Ordering Information**

GSP-730, 3GHz Spectrum Analyzer <u>Standard Accessories</u> Quick Start Manual User Manual CD Power Cord \*1

GRF-1300, RF and Communication system trainer <u>Standard Accessories</u> Experiment text book, student version Power Point file and Remote control software CD RF cable \*3 Antenna\*1 N to SMA adaptor connector Power Cord \*1



### **Option**

Experiment text book, teacher version

Should you have any question on the GSP-730 series announcement, please don't hesitate to contact us.

#### Sincerely Yours;

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