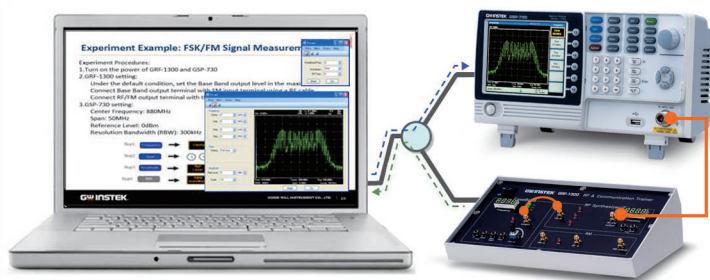




Turn-key Solution for RF and Communication Experiment Courses

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.

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.



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.

GSP-730 & GRF-1300

FEATURES

GSP-730 SPECTRUM ANALYZER

- Frequency Range : 150kHz ~ 3GHz
- Autoset Function
- Noise level : $\leq -100\text{dBm}$
- RBW Range : 30kHz, 100kHz, 300kHz, 1MHz
- ACPR/CHPW/OCBW Measurement
- 3 Traces in Different Colors
- Split Window Function
- Limit Line Function
- Remote Control Software
- Presentation Material for Training Courses
- Support Interface : USB Device/Host, RS-232C
- 5.6" TFT LCD with VGA Output

GRF-1300 COMMUNICATION TRAINER

- Waveform Support :
Sine Wave : 0.1 ~ 3MHz
Square Wave : 0.1 ~ 3MHz
Triangle Wave : 0.1 ~ 3MHz
- RF Frequency : 870 ~ 920MHz
- AM Modulation & FM Modulation
- 5 On/Off Switches and 5 Test Points to Simulate 8 Failure Conditions for Trouble-Shooting Study
- USB Interface to Provide Remote Control

APPLICATIONS

- Education, Training
- Fourier Theory Investigation
- Motherboard Circuit Measurement
- Wireless Communication Signal Measurements
 - GSM, 3G, 4G Mobile Phone
 - Bluetooth, Zigbee, Wi-Fi
 - AM/FM Modulation
- Remote Controller Maintenance

SPECIFICATIONS

GSP-730

| | | |
|------------------|--|---|
| FREQUENCY | Frequency Range Center Frequency Frequency Span Resolution Bandwidth SSB Phase Noise Inherent Spurious Response | Setting Range 150kHz ~ 3GHz Setting Resolution 0.1MHz Accuracy within $\pm 50\text{kHz}$ (frequency span : 0.3GHz ~ 2.6GHz, 20 $\pm 5^\circ\text{C}$) Setting range 1MHz ~ 3GHz Accuracy within $\pm 3\%$ (frequency span : 0.3GHz ~ 2.6GHz, 20 $\pm 5^\circ\text{C}$) Setting Range 30kHz, 100kHz, 300kHz, 1MHz -85dBc/Hz (typical, 500kHz offset, RBW : 30kHz, Sweep time : 1.5s, Span : 1MHz@1GHz) less than -45dBc@-40dBm Ref. Level (typical less than -50dBc) |
| AMPLITUDE | Reference Level Average Noise Level Frequency Characteristic Input | Input Range +20 ~ -40dBm Accuracy Within $\pm 2\text{dB}$ (1GHz) ; SPAN : 5MHz Unit dBm, dBV, dB μV $\leq -100\text{dBm}$ (typical, center frequency : 1GHz RBW : 30kHz) within $\pm 3.0\text{dB}$@300MHz ~ 2.6GHz within $\pm 6.0\text{dB}$@80 ~ 300MHz, 2.6 ~ 3GHz Input Impedance 50 Ω Input VSWR less than 2.0@input att $\geq 10\text{dB}$ Input damage level +30dBm (CW average power), 25VDC Input connector N connector |
| SWEEP | Sweep Time | Setting Range 300ms ~ 8.4s, auto (not adjustable) Accuracy within $\pm 2\%$ (frequency span : full span) |
| GENERAL | Communication Interface VGA Output Power Source | Display 640 x 480 RGB color LCD RS-232C Sub-D female-D 9 pins USB Connector USB Host/Device full speed supported Sub-D female 15 pins AC 100~240V, 50/60Hz |
| OTHER | Operating Temperature Operating Humidity Storage Temperature Dimensions Weight | 5 ~ 45°C (Guaranteed at 25 $\pm 5^\circ\text{C}$, without soft carrying case) Less than 45°C / 90%RH -20 ~ 60°C, less than 60°C / 70%RH 296 (L) x 153 (W) x 105 (H) mm Approx. 2.2kg |

GRF-1300

| | | |
|--------------------------------|---|---|
| BASE BAND | Waveforms Frequency Range Amplitude Harmonics Distortion | Sine, Square, Triangle 0.1 ~ 3MHz ; Step : 10kHz $\geq 1.5\text{Vpp}$ $\geq -30\text{dBc}$ |
| RF/FM ANALYSIS | Frequency Accuracy Adjustable Range Power Range | $\pm 0.15\text{MHz}$ $\geq 45\text{MHz}$ (870M ~ 920MHz) ; Step: 1MHz $\geq -15\text{dBm}$ |
| FM | Max Frequency Deviation | $> 3\text{MHz}$ |
| AM | Peak Difference | $\geq -18\text{dBm}$ |
| INTERFACE | USB | USB Device |
| DIMENSIONS & WEIGHT | | 165(W) x 155(H) x 90(D)mm, 1.2kg |

Specifications subject to change without notice. SP-730GD1DH

ORDERING INFORMATION

GSP-730 3GHz Spectrum Analyzer
GRF-1300 RF and Communication System Trainer

ACCESSORIES

GSP-730 Quick start manual x 1, User manual CD x 1, Power cord x1
GRF-1300 Experiment text book of student version, Power point file and remote control software CD, RF cable x 3, Antenna x 1, N to SMA adaptor connector, Power cord x 1

OPTION

Experiment text book of teacher version

FREE DOWNLOAD

PC Software Remote Monitor Software

Global Headquarters

GOOD WILL INSTRUMENT CO., LTD.

No.7-1, Jhongsing Road, Tucheng Dist., New Taipei City 236, Taiwan
 T +886-2-2268-0389 F +886-2-2268-0639
 E-mail: marketing@goodwill.com.tw

China Subsidiary

GOOD WILL INSTRUMENT (SUZHOU) CO., LTD.

NO. 69, Lushan Road, SND, Suzhou Jiangsu 215011 China
 T +86-512-6661-7177 F +86-512-6661-7277
 E-mail: marketing@instek.com.cn

Malaysia Subsidiary

GOOD WILL INSTRUMENT (M) SDN. BHD.

27, Persiaran Mahsuri 1/1, Sunway Tunas,
 11900 Bayan Lepas, Penang, Malaysia
 T +604-6309988 F +604-6309989
 E-mail: sales@goodwill.com.my

U.S.A. Subsidiary

INSTEK AMERICA CORP.

3661 Walnut Avenue Chino, CA 91710, U.S.A.
 T +1-909-5918358 F +1-909-5912280
 E-mail: sales@instekamerica.com

Japan Subsidiary

INSTEK JAPAN CORPORATION

4F, Prosper Bldg, 1-3-3 Iwamoto-Cho Chiyoda-Ku,
 Tokyo 101-0032 Japan
 T +81-3-5823-5656 F +81-3-5823-5655
 E-mail: info@instek.co.jp

Korea Subsidiary

GOOD WILL INSTRUMENT KOREA CO., LTD.

Room No.805, Ace Hightech-City B/D 1Dong,
 Mullae-Dong 3Ga 55-20, Yeongduengpo-Gu, Seoul, Korea
 T +82-2-3439-2205 F +82-2-3439-2207
 E-mail: gwinstek@gwinstek.co.kr

GW INSTEK

Simply Reliable

www.gwinstek.com