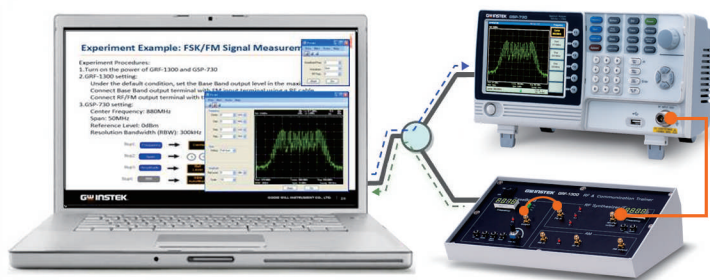




Turn-key Solution for RF and Communication Experiment Courses

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 Setting Resolution Accuracy Setting range Accuracy Setting Range -85dBc/Hz (typical, 500kHz offset, RBW : 30kHz, Sweep time : 1.5s, Span : 1MHz@1GHz) less than -45dBc@-40dBm Ref. Level (typical less than -50dBc)	150kHz ~ 3GHz 0.1MHz within ± 50 kHz (frequency span : 0.3GHz ~ 2.6GHz, 20 $\pm 5^{\circ}$ C) 1MHz ~ 3GHz within $\pm 3\%$ (frequency span : 0.3GHz ~ 2.6GHz, 20 $\pm 5^{\circ}$ C) 30kHz, 100kHz, 300kHz, 1MHz
AMPLITUDE	Reference Level Average Noise Level Frequency Characteristic Input	Input Range Accuracy Unit ≤ -100 dBm (typical, center frequency : 1GHz RBW : 30kHz) within ± 3.0 dB@300MHz ~ 2.6GHz within ± 6.0 dB@80 ~ 300MHz, 2.6 ~ 3GHz Input Impedance Input VSWR Input damage level Input connector	+20 ~ -40dBm Within ± 2 dB (1GHz) ; SPAN : 5MHz dBm, dBV, dB μ V 50 Ω less than 2.0@input att ≥ 10 dB +30dBm (CW average power), 25VDC N connector
SWEEP	Sweep Time	Setting Range Accuracy	300ms ~ 8.4s, auto (not adjustable) within $\pm 2\%$ (frequency span : full span)
GENERAL	Communication Interface VGA Output Power Source	Display RS-232C USB Connector Sub-D female 15 pins AC 100~240V, 50/60Hz	640 x 480 RGB color LCD Sub-D female-D 9 pins USB Host/Device full speed supported
OTHER	Operating Temperature Operating Humidity Storage Temperature Dimensions Weight	5 ~ 45°C (Guaranteed at 25 $\pm 5^{\circ}$ 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 ≥ 1.5 Vpp ≥ -30 dBc
RF/FM ANALYSIS	Frequency Accuracy Adjustable Range Power Range	± 0.15 MHz ≥ 45 MHz (870M ~ 920MHz) ; Step: 1MHz ≥ -15 dBm
FM	Max Frequency Deviation	> 3 MHz
AM	Peak Difference	≥ -18 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

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GW INSTEK

Simply Reliable

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