GSP-730 3GHz SPECTRUM ANALYZER & GRF-1300 COMMUNICATION TRAINER

CE | USB | RS-232 | VGA Output | PC Software

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 : ≤-100dBm
- 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 Mainteinance

GW INSTEK
Simply Reliable

SPECIFICATIONS

GSP-730

FREQUENCY	**Frequency Range**	Setting Range	150kHz ~ 3GHz
	Center Frequency	Setting Resolution	0.1MHz
		Accuracy	within ±50kHz (frequency span : 0.3GHz ~ 2.6GHz, 20 ±5°C)
	Frequency Span	Setting range	1MHz ~ 3GHz
		Accuracy	within ±3% (frequency span : 0.3GHz ~ 2.6GHz, 20 ±5°C)
	Resolution Bandwidth	Setting Range	30KHz, 100KHz, 300KHz,1MHz
	SSB Phase Noise	-85dBc/Hz (typical, 500kHz offset, RBW : 30kHz, Sweep time : 1.5s, Span : 1MHz@1GHz)	
	Inherent Spurious Response	less than -45dBc@-40dBm Ref. Level (typical less than -50dBc)	
AMPLITUDE	**Reference Level**	Input Range	+20 ~ -40dBm
		Accuracy	Within ±2dB (1GHz) ; SPAN : 5MHz
		Unit	dBm, dBV, dBμV
	Average Noise Level	≤ -100dBm (typical, center frequency : 1GHz RBW : 30kHz)	
	Frequency Characteristic	within ±3.0dB@300MHz ~ 2.6GHz	
		within ±6.0dB@80 ~ 300MHz, 2.6 ~ 3GHz	
	Input	Input Impedance	50Ω
		Input VSWR	less than 2.0@input att≥10dB
		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 ±2% (frequency span : full span)
GENERAL	**Communication Interface**	Display	640 x 480 RGB color LCD
		RS-232C	Sub-D female-D 9 pins
		USB Connector	USB Host/Device full speed supported
	VGA Output	Sub-D female 15 pins	
	Power Source	AC 100~240V, 50/60Hz	
OTHER	**Operating Temperature**	5 ~ 45°C (Guaranteed at 25 ±5°C, without soft carrying case)	
	Operating Humidity	Less than 45°C / 90%RH	
	Storage Temperature	-20 ~ 60°C, less than 60°C / 70%RH	
	Dimensions	296 (L) x 153 (W) x 105 (H) mm	
	Weight	Approx. 2.2kg	

GRF-1300

BASE BAND	**Waveforms**	Sine, Square, Triangle
	Frequency Range	0.1 ~ 3MHz ; Step : 10kHz
	Amplitude	≥1.5Vpp
	Harmonics Distortion	≥ -30dBc
RF/FM ANALYSIS	**Frequency Accuracy**	±0.15MHz
	Adjustable Range	≥45MHz (870M ~ 920MHz) ; Step: 1MHz
	Power Range	≥ -15dBm
FM	**Max Frequency Deviation**	>3MHz
AM	**Peak Difference**	≥ -18dBm
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