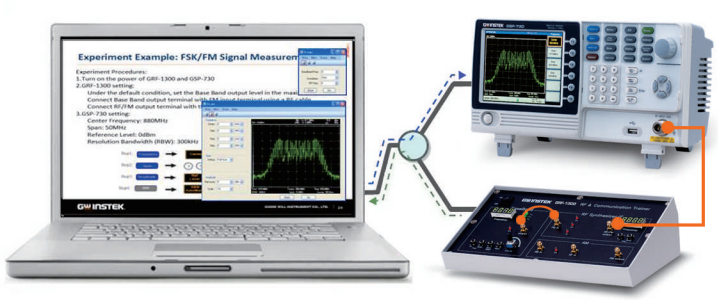
GSP-730 3GHz SPECTRUM ANALYZER & GRF-1300/1300A RF and COMMUNICATIONS TRAINER

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 Communications education. Budget constraint and inadequate teaching tools are normally the two hurdles for schools to provide high-quality courses for RF communications experiments. GSP-730, a spectrum analyzer of full functions, combines with the GRF-1300/1300A training kit to provide customer an economical turn-key solution for 3GHz RF and Communications Experiment Courses.

Properly connect GSP-730 Spectrum Analyzer, GRF-1300/1300A RF and Communications Trainer and a PC to perform ongoing experiments while the lecture is being given. Using a PC, teacher can present teaching material with Power Point slides and simultaneously control GSP-730 and GRF-1300/1300A to perform experiments and get spectrum displays parameter readings on the PC screen. GSP-730 and GRF-1300/1300A easily transfer the current teaching materials including the PowerPoint slides, textbook and the remote control software into electronic-teaching system.



Fully-electronic RF Training System

The combination of GSP-730 and GRF-1300/1300A forms a fundamental training system for RF communications and telecommunications classes in the universities, colleges, vocational schools and the training center in military as well as the private companies. Instead of the tremendous cost of the installation of new training system, the conjunction of GSP-730 and GRF-1300/1300A provides an economical solution to eliminate two obstacles, budget constraint and insufficiency of teaching tools.

GSP-730
GRF-1300/1300A

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-1300/1300A
RF and 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 Learning Outcome Test
- USB Interface to Provide Remote Control
- Mixer & 2.4GHz Bandpass Filter (Only GRF-1300A)

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	**Display**	640 x 480 RGB color LCD	
	Communication Interface	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 &WEIGHT		296(L) x 153(W) x 105(H) mm/11.6(L) x 6(W) x 4.1(H) in, Approx. 2.2kg/4.9lb	

GRF-1300/1300A

		GRF-1300A	GRF-1300
BASE BAND	**Waveforms**	Sine, Square, Triangle	Sine, Square, Triangle
	Frequency Range	0.1~3MHz , Step : 10kHz	0.1~3MHz , Step : 10kHz
	Amplitude	≧1.5Vpp ≧0.75Vpp into 50 Ohm	≧1.5Vpp
	Harmonic Distortion	≦-30dBc	≦-30dBc
RF/FM ANALYSIS	**Frequency Accuracy**	±0.15MHz	±0.15MHz
	Adjustable Range	≧45MHz (870M ~ 920MHz) , Step : 1MHz	≧45MHz (870M ~ 920MHz) , Step : 1MHz
	Power Range	≧-15dBm	≧-15dBm
FM	**Max Frequency Deviation**	>3MHz	>3MHz
AM	**Peak Difference**	≧-18dBm	≧-18dBm
MIXER	**LO + IF**	≧-35dBm	–
	LO - IF	≧-35dBm	–
MIXER + MODULATION		≧-60dBm	–
BANDPASS FILTER	**Frequency Centre: 2.4GHz**	Bandwidth: ±20MHz	–
INTERFACE	**USB Device**	USB Type B	
DIMENSIONS & WEIGHT		165(W) x 155(H) x 90(D)mm/6.5(W) x 6.1(H) x 3.5(D)in, Approx. 1.2kg/2.6lb	

Specifications subject to change without notice. SP-730GD1DH

ORDERING INFORMATION

GSP-730 3GHz Spectrum Analyzer
GRF-1300/1300A RF and Communications Trainer

ACCESSORIES

GSP-730 : Quick start manual x 1, User manual CD x 1, Power cord x1

GRF-1300/1300A : Experiment text book of student version, Power point file and remote control software CD, GRF-1300 : RF cable x 3, Antenna x 1/
GRF-1300A : RF cable x 6, Antenna x 2, N to SMA adaptor connector x 1, Power cord x 1

OPTION

GBK-001 GRF-1300 Experiment text book of teacher version

GBK-002 GRF-1300A Experiment text book of teacher version

FREE DOWNLOAD

PC Software Training syetem remote control software

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