



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

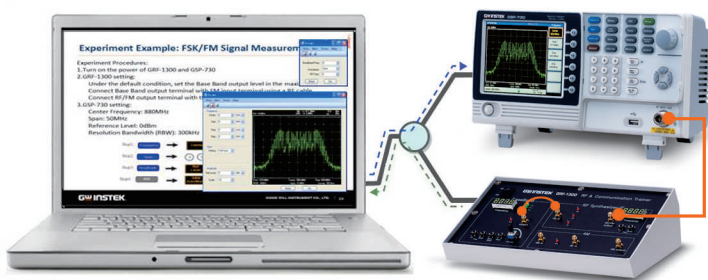
GRF-1300 RF and Communication Trainer

- 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

Turn-key Solution for RF and Communication Experiment Courses

GW Instek GSP-730 is a 3 GHz Spectrum Analyzer mainly developed to fulfill the demands of RF Communication educations. Budget constraint and inadequate of teaching tools are normally the two hurdles for schools to provide high-quality courses for RF communication experiments. GSP-730 is a spectrum analyzer of full functions, with appropriate combination with the training kit, GRF-1300, provide customers an economic turn-key solution for 3GHz RF Communication Experiment Courses.

With its components, GSP-730 Spectrum Analyzer, GRF-1300 RF and Communication Trainer and a PC, properly connected, a tangible system is integrated for performing ongoing experiments while the lecture is being given. Using a PC, the teacher can present teaching material with PowerPoint slide and simultaneously control GSP-730 and GRF-1300 to perform experiments and get spectrum displays and parameter readings on the PC screen. GSP-730 and GRF-1300 easily transferred 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 forms a fundamental training system for RF communication and telecommunication classes in the universities, colleges, vocational schools, and the training centers 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 provides an economic solution to eliminate two obstacles, budget constraint and insufficiency of teaching tools.

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	Setting Range	150kHz ~ 3GHz
	Center Frequency	Setting Resolution	0.1MHz
	Frequency Span	Accuracy	within ± 50 kHz (frequency span : 0.3GHz ~ 2.6GHz, 20 $\pm 5^\circ$ C)
	Resolution Bandwidth	Setting range	1MHz ~ 3GHz
AMPLITUDE	Reference Level	Accuracy	within $\pm 3\%$ (frequency span : 0.3GHz ~ 2.6GHz, 20 $\pm 5^\circ$ C)
	Average Noise Level	Setting Range	30KHz, 100KHz, 300KHz, 1MHz
	Frequency Characteristic	Accuracy	-85dBc/Hz (typical, 500kHz offset, RBW : 30kHz, Sweep time : 1.5s, Span : 1MHz@1GHz)
	Input	Setting Range	less than -45dBc@-40dBm Ref. Level (typical less than -50dBc)
SWEEP	Sweep Time	Input Range	+20 ~ -40dBm
		Accuracy	Within ± 2 dB (1GHz) ; SPAN : 5MHz
		Unit	dBm, dBV, dB μ V
		Input Impedance	≤ -100 dBm (typical, center frequency : 1GHz RBW : 30kHz)
GENERAL	Display	within ± 3.0 dB@300MHz ~ 2.6GHz	
	Communication Interface	within ± 6.0 dB@80 ~ 300MHz, 2.6 ~ 3GHz	
	VGA Output	Input VSUR	less than 2.0@input att ≥ 10 dB
	Power Source	Input damage level	+30dBm (CW average power), 25VDC
OTHER	Operating Temperature	Input connector	N connector
	Operating Humidity	Setting Range	300ms ~ 8.4s, auto (not adjustable)
	Storage Temperature	Accuracy	within $\pm 2\%$ (frequency span : full span)
		Display	640 x 480 RGB color LCD
DIMENSIONS & WEIGHT	Communication Interface	RS-232C	Sub-D female-D 9 pins
	VGA Output	USB Connector	USB Host/Device full speed supported
	Power Source	Sub-D female 15 pins	
		AC 100~240V, 50/60Hz	
GRF-1300	Waveforms	5 ~ 45°C (Guaranteed at 25 $\pm 5^\circ$ C, without soft carrying case)	
	Frequency Range	Less than 45°C / 90%RH	
	Amplitude	-20 ~ 60°C, less than 60°C / 70%RH	
	Harmonics Distortion	Storage Temperature	
RF/FM GENERATOR	Frequency Accuracy	296(L) x 153(W) x 105(H) mm / 11.6(L) x 6(W) x 4.1(H) in	
	Adjustable Range	Approx. 2.2kg / 4.9lb	
	Power Range		
FM	Max Frequency Deviation	Sine, Square, Triangle	
		0.1 ~ 3MHz ; Step : 10kHz	
AM	Peak Difference	≥ 1.5 Vpp	
		≥ -30 dBc	
INTERFACE	USB	± 0.15 MHz	
		≥ 45 MHz (870M ~ 920MHz) ; Step: 1MHz	
DIMENSIONS & WEIGHT		≥ -15 dBm	
		>3MHz	

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

GBK-001 Experiment text book of teacher version

FREE DOWNLOAD

PC Software Training system remote control software

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