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



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



GSP-730 & GRF-1300/1300A

| SPECIFICATIONS | | | | |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| GSP-730 | | | | |
| FREQUENCY | Frequency Range Center Frequency Frequency Span Resolution Bandwidth SSB Phase Noise Inherent Spurious Response | Setting Range150kHz -Setting Resolution0.1MHzAccuracywithin ±5Setting range1MHz -Accuracywithin ±3Setting Range30KHz, 1-85dBc/Hz (typical, 500kHz offset, RBless than -45dBc@-40dBm Ref. Level | - 3GHz 0kHz (frequency span : 0.3GHz ~ 2.6GHz, 20 ±5°C) 3GHz % (frequency span : 0.3GHz ~ 2.6GHz, 20 ±5°C) 00KHz, 300KHz,1MHz & : 30kHz, Sweep time : 1.5s, Span : 1MHz@1GHz) typical less than -50dBc) | |
| AMPLITUDE | Reference Level Average Noise Level Frequency Characteristic Input | $\begin{array}{llllllllllllllllllllllllllllllllllll$ | dBm 2dB (1GHz) ; SPAN : 5MHz V, dBμV 1GHz RBW : 30kHz) GHz 2.0@input att≥10dB (CW average power), 25VDC ctor | |
| SWEEP | Sweep Time | Setting Range 300ms ~ Accuracy within ±2 | 8.4s, auto (not adjustable) % (frequency span : full span) | |
| GENERAL | Display Communication Interface VGA Output Power Source | 640 x 480 RGB color LCD RS-232C Sub-D fe USB Connector USB Hos Sub-D female 15 pins AC 100~240V, 50/60Hz | Sub-D female-D 9 pins USB Host/Device full speed supported | |
| OTHER | Operating Temperature Operating Humidity Storage Temperature | $5 \sim 45^\circ C$ (Guaranteed at 25 ±5°C, without soft carrying case) Less than 45°C / 90%RH -20 $\sim 60^\circ C$, less than 60°C / 70%RH | | |
| DIMENSIONS &WEIGHT | 1 | 296(L) × 153(W) × 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 Frequency Range Amplitude Harmonic Distortion | Sine, Square, Triangle 0.1~3MHz , Step : 10kHz ≧1.5Vpp ≧0.75Vpp into 50 Ohm ≦-30dBc | Sine, Square, Triangle 0.1~3MHz , Step : 10kHz ≧1.5Vpp ≦-30dBc | |
| RF/FM ANALYSIS | Frequency Accuracy Adjustable Range Power Range | ±0.15MHz ≧45MHz (870M ~ 920MHz) , Step : 1 ≧-15dBm | ±0.15MHz MHz ≧45MHz (870M ~ 920MHz) , Step : 1MHz ≧-15dBm | |
| FM | Max Frequency Deviation | >3MHz | >3MHz | |
| AM | Peak Difference | ≧-18dBm | ≧-18dBm | |
| MIXER | LO + IF LO - IF | ≧-35dBm ≧-35dBm | = | |
| MIXER + MODULATION | | ≧-60dBm | | |
| BANDPASS FILTER | Frequency Centre: 2.4GHz | Bandwidth: ±20MHz | - | |
| INTERFACE | USB Device | USB Type B | | |
| DIMENSIONS & WEIGHT 105(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-730GD1DF | | | | |
| GSP-730 3GHz Spectrum Analyzer GRF-1300/1300A RF and Communications Trainer | | | GBK-001 GRF-1300 Experiment text book of teacher version | |
| ACCESSORIES GSP-730 : Quick start man | nual x 1, User manual CD x 1, Po | wer cord x1 | GBK-002 GRF-1300A Experiment text book of teacher version | |
| CDE 1200/12004 . Fund | imant toxt book of student versio | . Deven a sint file and remate control | | |

RF-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

FREE DOWNLOAD

PC Software Training system remote control software

