

GSP-810 (150kHz~1GHz)



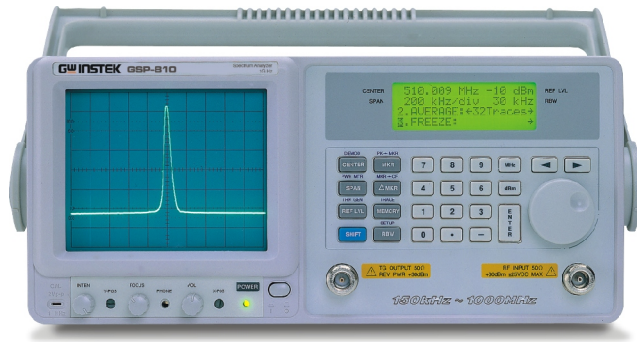
The GSP-810 Spectrum Analyzer is a digitally synthesized, easy-to-use RF measurement instrument with a frequency range up to 1GHz. It uses state-of-the-art design for a phase-locked RF system that combines measurement quality and performance with an affordable price. The GSP-810 is designed for rugged use as well, with 1-watt input protection. The small size and light weight of GSP-810 make it easy to carry and stow anywhere. Standard RS-232C interface and free Windows compatible software allow displaying the spectrum and saving/printing the test data through PC. All these functions and features make the GSP-810 an affordable, expandable, and high quality instrument fit your needs!

FEATURES

- * Frequency Range : 150kHz ~ 1GHz
- * Fully Digital Phase Locked Loop Technique Design
- * High Frequency Stability : ± 10 ppm
- * High Resolution of Span to Measure the More Detailed Signal : Zero, 2kHz~100MHz/div
- * RBW : 3k, 30k, 220k, 4MHz
- * High Input Protection Level : +30dBm, ± 25 VDC
- * Reference Level Range : -30dBm ~ +20dBm
- * Good Noise Floor Performance: -95dBm @30kHz, -100dBm Typical @220kHz RBW
- * Two Markers for Absolute and Relative Measurement
- * Functions: Max. Hold, Average(2 ~ 32 Traces), Freeze, Peak Search, Marker to Center Functions
- * 9 Memories of Save/Recall
- * RS-232C Interface and Software to get Trace from GSP-810 to PC
- * Options: Tracking Generator, Power Meter, Remote Control Software

SPECIFICATIONS

FREQUENCY	
Frequency Range	150kHz~1GHz
Aging Rate	± 10 ppm, 0~50 $^{\circ}$ C, ± 2 ppm/yr
Span Range	Zero, 2kHz~100MHz/div in 1-2-5 sequence
Phase Noise	-77dBc/Hz @ 1GHz 30kHz offset
Frequency Resolution	1kHz C.F. entry, 40Hz sweep resolution at 2kHz/div
Frequency Display	6 1/2 digit setting
Frequency Control	Digital phase locked
RESOLUTION BANDWIDTH	
RBW Range	3kHz, 30kHz, 220kHz, 4MHz
RBW Accuracy	15%
Video Bandwidth Range	1.6kHz/90kHz couple with RBW
AMPLITUDE	
Measurement Range	-100dBm~+20dBm
Overload Protection	+30dBm continuous, ± 25 VDC
Reference Level Range	-30dBm~+20dBm
Amplitude Display Range	75dB
Amplitude Accuracy	± 1.5 dB typical @ 0dBm, 80MHz
Frequency Flatness	± 1.5 dB over 100MHz, ± 2.5 dB typical over entire band/ ± 3 dB:150kHz~10MHz
Amplitude Level Linearity	± 1.5 dB over 70dB
DYNAMIC RANGE	
Average Noise Floor	-95dBm @30kHz RBW, -100dBm typical /-75dBm: 150kHz~10MHz
Third Inter-Modulation	<-70dBc, @-40dBm input, 2tones, 2MHz apart/ <-45dBc:150kHz~10MHz
Harmonic Distortion	<-40dBc, RF input < selected reference
Non-Harmonic Spurious	<-60dBc typical down from reference level, average, 5MHz/div
DISPLAY SYSTEM	
Display Device	CRT Display, 8 x 10 graticule, 6-inch waveform screen LCD Display, 4 line x 20 character data screen
Display Function	Center Frequency Control, Bandwidth, Reference Level, Span Range, Amplitude
FUNCTIONS	
Marker Mode	Absolute, relative, PK->marker, marker->center
Number of Markers	2
Marker Resolution	0.1dB, 1kHz
Marker Accuracy	0.1dB \pm amplitude accuracy
Memory	10 memorise of save/recall
Trace	Max. hold, average(2~32 traces), freeze(Hold)
Setup	Access parameters
Demodulator	WB FM, 120kHz deviation MB FM, 75kHz deviation NB FM, 30kHz deviation AM Outputs : Internal speaker, 3.5mm stereo jack, wired for mono operation
Calibrate Signal	80MHz, -30dBm
INTERFACE	
RS-232C standard & remote display software (The software will be downloaded from GW Web-Site.)	
POWER SOURCE	
AC 100V/120V/220V/230V $\pm 10\%$, 50/60Hz	
DIMENSIONS & WEIGHT	
310(W) x 150(H) x 455(D) mm, Approx. 8.5kg	



GSP-810

ORDERING INFORMATION

GSP-810 1GHz Spectrum Analyzer

ACCESSORIES :

User manual x 1, Power cord x 1

OPTION

Opt. 01 TRACKING GENERATOR (Factory Installed)

Frequency Range	150kHz ~ 1GHz
Amplitude Range	- 50 dBm ~ 0dBm
Amplitude Resolution	1 dB
Amplitude Accuracy	± 1 dB @ 0 dBm, 80 MHz
Attenuation Accuracy	± 1 dB @ 50 MHz
Amplitude Flatness	± 1 dB @ 10 MHz/DIV, ± 1.5dB@0dB, entire band
Harmonics	< -30 dBc (< -25dBc, 150kHz ~ 10MHz)
Reverse Power	< +30 dBm
Impedance	50 Ω nominal
Return Loss	< 10 dB (VSWR < 2)
Connector	Type N female

Opt. 02 POWER METER (Factory Installed)

Frequency Range	10MHz ~ 2 GHz, usable to 2.7GHz
Power Level Range	-20 dBm ~ +23 dBm, usable to +30 dBm
Power Level Overload	+40 dBm < 10% duty cycle, < 10 mS duration
Return Loss	< 1:1.35 VSWR into 50 ohms, < 1:1.25 typical
Readout Resolution	0.2 mW, 100 mW scale, 2 μW, 1 mW scale; 0.1dB, Log scale
Accuracy	± (10% rdg ± 1digit)
Readout	mW or dBm

Opt. 03 REMOTE CONTROL SOFTWARE

Connecting PC to get the trace and provide the control for setting

OPTIONAL ACCESSORIES

ATA-001 BNC Antenna (An additional ADP-001 is needed for fitting GSP spectrum analyzers)

ATA-002 Near Field Probe

Wideband, 0.1~1000 MHz, Low Noise, 2.9dB Typical

RLB-001 Return Loss Bridge

RLB Frequency Range 10MHz ~ 1GHz

GKT-001 General Kit set

ADP-002: adaptor, SMA(J/F) ~ N(P/M) x 2
 ATN-100: 10dB attenuator, N(J/F) ~ N(P/M) x 1
 GTL-303: RF cable assembly(SMA(P/M),RD316,600mm)x2
 GSC-002: Kit box x 1

GKT-002 CATV Kit set

ADP-001: adaptor, BNC(J/F) ~ N(P/M) x 2
 ADP-101: adaptor, BNC(J/F) 75 Ω ~ BNC(P/M) 50 Ω x 2
 GTL-304: RF cable assembly(RG223, N(P/M)-N(J/F), 300mm)x2
 GSC-003: Kit box x 1

GKT-003 RLB Kit set

GAK-001: termination 50 Ω, N(P/M) x 1
 GAK-002: Cap with chain, N(P/M) x 1
 GTL-302: RF cable assembly(RG223, N(P/M), 300mm)x2
 GSC-004: Kit box x 1

GKT-006 EMI Probe Kit set

ANT-01: 6cm Loop, H-Field Probe x 1	Test Lead: BNC(P/M)~BNC(P/M) RF Cable x 1
ANT-02: 3cm Loop, H-Field Probe x 1	Test Lead: SMA(P/M)~SMA(P/M) RF Cable x 1
ANT-03 6mm Stub tip, E- Field Probe x 1	ADP-01: N(P/M)~BNC(J/F) Adapter x 1
PR-03: Touch Passive Probe x 1	ADP-02: N(P/M)~SMA(J/F) Adapter x 1

GTL-301 RF Cable

RG 223 N(P/M), 1000mm

GKT-001 General Kit Set

ADP-002
 ATN-100
 GTL-303
 GSC-002

For:GSP-810/827/830



GKT-002 CATV Kit Set

ADP-001
 ADP-101
 GTL-304
 GSC-003

For:GSP-810/827/830



GKT-003 RLB Kit Set

GAK-001
 GAK-002
 GTL-302
 GSC-004

For:GSP-810/827/830



GKT-006 EMI Probe Kit Set

ADP-01 Test Lead: BNC(P)~BNC(P) RF Cable x 1
 ADP-02 Test Lead: SMA(P)~SMA(P) RF Cable x 1

ANT-01
 ANT-02
 ANT-03
 PR-03

For:GSP-810/827/830

