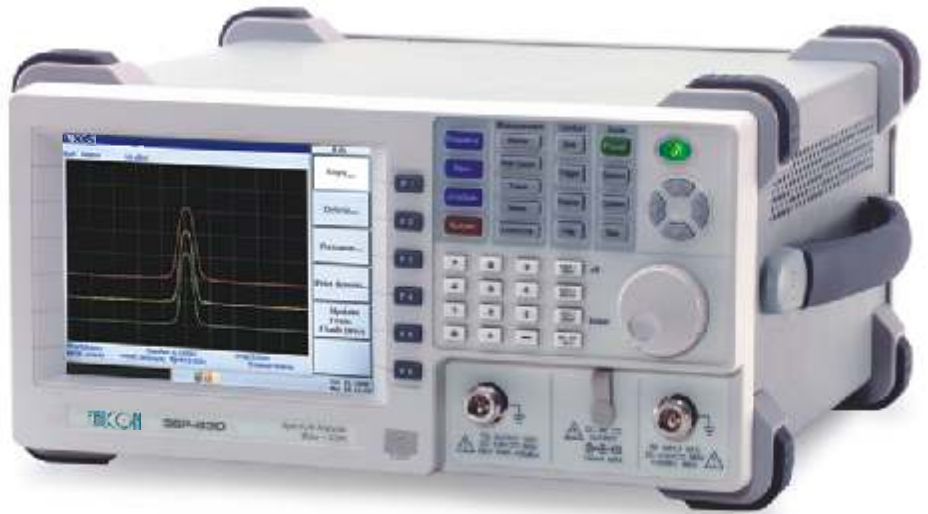


GSP-830TG 3GHz SPECTRUM ANALYZER WITH TRACKING GENERATOR



GSP-830TG Spectrum Analyzer inherits advantages of high performance, affordable cost, ease of use and portability. The outstanding noise floor level, -152dBm/Hz and -172dBm/Hz with preamplifier presents extreme sensitivity for picking up weak signals. Through the Auto Sequence mode, professional users can define their own macros in 10 Sequence sets while additional Pause, Repeat or Signal run mode can be selected for different applications.

FEATURES

- Frequency range 9 kHz ~ 3GHz
- Phase locked loop technique
- Good Stability
- Good noise floor performance

TECHNICAL SPECIFICATIONS

FREQUENCY

Frequency range	: 9kHz ~ 3GHz
Aging Rate	: $\pm 10\text{ppm}$, $0\sim 50^{\circ}\text{C}$, 5ppm/yr
Span Range	: 2kHz ~ 3GHz in 1-2-5 sequence, full span, zero span
Phase Noise	: -80dBc/Hz @1GHz 20kHz offset typical
Sweep Time Range	: 50ms ~ 25.6s

RESOLUTION BANDWIDTH

RBW Range	: 3kHz, 30kHz, 300kHz, 4MHz
RBW Accuracy	: 15%
Video Bandwidth Range	: 10Hz ~ 1MHz in 1-3 steps

AMPLITUDE

Measurement Range	: $-103\text{dBm} \sim +20\text{dBm}$: 1MHz ~ 15MHz, Ref.Level @ -30dBm : $-117\text{dBm} \sim +20\text{dBm}$: 15MHz ~ 1GHz, Ref.Level 110dBm : $-114\text{dBm} \sim +20\text{dBm}$: 1GHz ~ 3GHz, Ref.Level 110dBm (Span = 50kHz, RBW = 3kHz)
Overload Protection	: Max. $+30\text{dBm}$, $\pm 25\text{VDC}$
Reference Level Range	: $-110\text{dBm} \sim +20\text{dBm}$
Accuracy	: $\pm 1\text{dB}$ @100MHz
Frequency Flatness	: $\pm 1\text{dB}$
Display Range Linearity	: $\pm 1\text{dB}$ over 70dB

DYNAMIC RANGE

Average Noise Floor	: <-135±1dBm/Hz: 1MHz ~ 15MHz, Ref.Level @ -30dBm <-149dBm/Hz, typical -152dBm/Hz: 15MHz ~ 1GHz, Ref.Level 110dBm <-146dBm/Hz, typical -149dBm/Hz: 1GHz ~ 3GHz, Ref.Level 110dBm
Third Inter-Modulation	: <-70dBc RF Input @-40dBm, Ref.Level @-30dBm
Harmonic Distortion	: <-60dBc RF Input <-40dBm , Ref.Level @-30dBm
Non-Harmonic Spurious	: <-93dBm, 1MHz ~ 15MHz, Ref.Level @-30dBm <-107dBm ~ +20dBm: 15MHz ~ 1GHz, Ref.Level -110dBm <-104dBm ~ +20dBm: 1GHz ~ 3GHz, Ref.Level 110dBm (Span = 50kHz, RBW = 3kHz)

GENERAL

Display	: 640 x 480 high resolution TFT color LCD
Split Windows	: Active Window: Upper, Lower or Alternate (two simultaneously sweeping windows)
Markers	: 10 Markers for peaks : 5 normal-delta marker pairs Functions: Delta, To Peak, To Minimum, Peak Track, Peak Table, Peak Sort
Trace Detection	: 3 traces with Peak, Maximum hold, Freeze, Average, Trace math
Power Measurement	: ACPR, OCBW, Channel Power, N dB and Phase Jitter
Autoset Function	: Auto tuning the measurement result for observation
Trigger	: Conditions : Video, External (Positive-going, +5V TTL external signal)
Mode	: Normal, Single, Continuous
Sequence	: Automated test by user-defined macros without any remote controller, 10 Sequential macro set and 10 macros per each set, Variable delays and wait-to-go facilitate automated measurement, Do-sequence links and nests different sequence sets.

CONNECTORS

RF Input	: N female, 50Ω nominal
RF input VSWR	: <2:1, @0dBm
Reference Level External	
Reference Type	: BNC female Clock Input 1M, 1.544M, 2.048M, 5M, 10M, 10.24M, 13M, 15.36M, 15.4M, 19.2MHz
Reference Clock Output Type	: BNC female, 10MHz
DC Input (DC Power Operation)	: Jack : 5.5mm, 12V
DC Output	: Type: SMB Male, outputs +9V/100mA Max.

TRACKING GENERATOR

Frequency Range	: 9kHz ~ 3GHz
Amplitude Range	: -50dBm ~ 0dBm
Amplitude Accuracy	: 1dB@100MHz, 0dBm
Amplitude Flatness	: 1dB@0dBm
Harmonics	: <-30dBc typical
Reverse Power	: +30dBm
Impedance	: Type: N female, 50Ω nominal
RF Output VSWR	: < 2 : 1

