

# Bench Spectrum Analysers

**GW INSTEK**

## GSP-827



- 9kHz ~ 2.7GHz.
- Tracking Generator Option Available.
- Battery Option Available.
- Portable at 4.5kg.
- GPIB Option Available, RS-232 Standard.

		GSP-827
<b>Frequency</b>	Frequency Range Aging Rate Span Range Phase Noise Sweep Time	9kHz ~ 2.7GHz ± 10ppm, 0 ~ 50°C, 5ppm/yr 2kHz ~ 2.5GHz in 1-2-5 Sequence, Full Span, Zero Span -85dBc/Hz @ 1GHz, 20kHz Offset, Typical Minimum 100ms
<b>Resolution Bandwidth Range</b>	RBW Range RBW Accuracy Video Bandwidth Range	3kHz, 30kHz, 300kHz, 4MHz 15% 10Hz ~ 1MHz in 1-3 Steps
<b>Amplitude</b>	Measurement Range  Overload Protection Reference Level Range Amplitude Display Range Amplitude Accuracy Frequency Flatness Amplitude Level Linearity	1MHz ~ 2.5GHz: -100dBm ~ +20dBm (3k RBW) 2.5GHz ~ 2.7GHz: -95dBm ~ +20dBm (3k RBW) 150kHz ~ 1MHz: -75dBm ~ +20dBm (3k RBW) 9kHz ~ 150kHz: -65dBm ~ +20dBm (3k RBW) +30dBm, ± 25VDC -80dBm ~ +20dBm 75dB ± 1.5dB @ 100MHz ± 1.5dB ± 1.5dB over 70dB
<b>Dynamic Range</b>	Average Noise Floor  Third Inter-Modulation Harmonic Distortion Non-Harmonic Spurious	1MHz ~ 2.5GHz: ≤-100dBm 2.5GHz ~ 2.7GHz: ≤-95dBm 150kHz ~ 1MHz: ≤-75dBm 9kHz ~ 150kHz: ≤-65dBm <-70dBc @ -40dBm Input, 2MHz Apart <-60dBc @ -40dBm Input <-60dBc @ typical down from Reference Level 150kHz ~ 2.7GHz
<b>Display System</b>	Display Device Display Functions	640 x 480 High Resolution Graphical LCD, Monochrome Contrast, Backlight ON/OFF, Invert Screen, Split Window: Upper & Lower
<b>Functions</b>	Marker Mode Number of Markers Internal Memory Peak Search  Number of Traces Trace Functions Trace Detectors Power Measurement Trigger Functions Trigger Modes Trigger Sources Trigger Settings Limit Line Limit Line Functions Internal Calibration Signal Interface	Normal & Delta Mode Up to 10 Markers in Multi Marker Mode 100 Memories for Storage of Traces & Setups Markers to Peak, Markers to Centre, Next Peak, Peak Right, Peak Left & Peak Track 2 Traces, Trace A & B for Display Memory Peak Hold, Average, Freeze, Trace Math. Sample, Peak+, AVG (3 Time Constants), Quasi-Peak ACPR x 2, OCBW, Channel Power Video, External Continuous, Single Video, External (0 ~ 5V Rising Edge) Trigger Delay, Trigger Frequency 2 Limit Lines, High & Low Insert, Delete, Undo, Pass/Fail 100MHz, -30dBm RS-232C as Standard
<b>Connectors</b>	RF Input Connector Type Input VSWR External Reference Clock Input Reference Clock Output DC Input RS-232C	N Female, 50Ω <1.5:1, @ 0dBm Reference Level Type: BNC Female 1, 1.544, 2.048, 5, 10, 10.24, 13, 15.36, 15.4, 19.2MHz Type: BNC Female, 10MHz Jack: 5.5mm, 12V Sub-D 9 Pins Female

	<b>GSP-827</b>
<b>General</b> Power Source Accessories Dimensions Weight	AC: 100 ~ 240V, 48 ~ 63Hz Instruction Manual x 1, Power Cord x 1 330mm (W) x 170mm (H) x 340mm (D) 4.5kg

<b>ORDERING INFORMATION</b>		
Option 01	<b>Tracking Generator</b>	Frequency Range: 9kHz ~ 2.7GHz Amplitude Range: -50dBm ~ 0dBm Amplitude Accuracy: $\pm 1\text{dB @ } 100\text{MHz}$ , 0dBm Amplitude Flatness: $\pm 1.5\text{dB @ } 0\text{dBm}$ Harmonics: < -30dBm Typical Reverse Power: + 30dBm Impedance: Type: N Female, 50 $\Omega$ Nominal RF Output VSWR: < 1.5 : 1
Option 02	<b>AC / DC / Battery Operation with Battery Pack</b>	AC 100V ~ 240V, DC 12V & 10.8V Li-Ion Battery Pack x 2
Option 03	<b><math>\pm 1\text{ppm}</math> Stability</b>	- $\pm 1\text{ppm}$ , 0 ~ 50°C, $\pm 1\text{ppm/yr.}$
GRA 404		Rack Mount Adaptor.
Option 06	<b>GPIB Interface</b>	IEEE 488 Bus.
Option 07	<b>Soft Carrying Case</b>	GSC-001.
Option 08	<b>General Kit Set</b>	ADP-002: Adaptor, SMA (J/F) ~ N (P/M) x 2 ATN-100: 10dB Attenuator, N (J) ~ N (P) x 1 GTL-303: RF Cable Assembly (SMA (P), RD316, 600mm) x 2 GSC-002: Kit Box x 1
Option 09	<b>CATV Kit Set</b>	ADP-001: Adaptor, BNC (J / F) ~ N (P / M) x 2 ADP-101: Adaptor, BNC (J / F) 75 $\Omega$ ~ BNC (P / M) 50 $\Omega$ x 2 GTL-304: RF Cable Assembly (SMA (P), RD316, 600mm) x 2 GSC-003: Kit Box x 1
Option 10	<b>RLB Kit Set</b>	GAK-001: Termination 50 $\Omega$ , N (P) x 1 GAK-002: Cap with Chain, N (P) x 1 GTL-302: RF Cable Assembly (RG223, N (P) – N (J), 300mm) x 2 GSC-004: Kit Box x 1
Option 11	<b>DC-Power Line</b>	GTL-401: DC Power Cord with DC Jack & Lighter Plug, Current 5A.
Option 12	<b>EMI Filters (*)</b>	RBW Selections: 9kHz & 120kHz, 6dB Bandwidth. RBW Accuracy: 15%
Option 13	<b>Demodulator (*)</b>	Demodulation: AM, FM. Output: Internal Speaker, 3.5mm Stereo Jack Wired for Mono Operation
Option 14	<b>EMI Filters &amp; 300Hz RBW (*)</b>	RBW Selections: 9kHz & 120kHz, 6dB Bandwidth 300Hz, 3dB Bandwidth. RBW Accuracy: 15%
Option 15	<b>EMI Filters &amp; Demodulator (*)</b>	RBW Selections: 9kHz & 120kHz, 6dB Bandwidth RBW Accuracy: 15% Demodulation: AM, FM Output: Internal Speaker, 3.5mm Stereo Jack Wired for Mono Operation
Option 16	<b>EMI Filters, 300Hz RBW &amp; Demodulator (*)</b>	RBW Selections: 9kHz & 120kHz, 6dB Bandwidth 300kHz, 3dB Bandwidth RBW Accuracy: 15% Demodulation: AM, FM Output: Internal Speaker, 3.5mm Stereo Jack Wired for Mono Operation
* Only 1 Option from 12 ~ 16 can be fitted.		