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Find the *Instek GSP-827* at our website: ***Click HERE***

# Spectrum Analyzer



## GSP-827 (9kHz~2.7GHz)

### FEATURES

* Frequency Range : 9kHz ~ 2.7GHz
* Input Range : -100dBm ~ +20dBm
* Average Noise Floor : -100dBm
* Power Measurements : ACPR/OCBW/CH Power
* Split Window: Simultaneous Measurements in Two Separate Frequency Spans
* 10 Markers : Delta Mode, Peak Search, Peak Track
* Trace Function : Dual-Trace Display, Peak Hold, Freeze, Average, Trace Math
* Limit Line : Upper/Lower Limit with Pass/Fail Test
* Trigger Function : Video/ External
* Clock/Calendar : Time/Date Stamp in Saved Data
* Wide Range of External Reference Clock : 1MHz~19.2MHz
* 100 Trace/State Memories with Date/Time Stamp and File Name
* TG : 9kHz ~ 2.7GHz, -50dBm ~ 0dBm (Option)
* AC/DC/Battery Operation (Option)
* Compact Size and Light Weight at 4.5kg

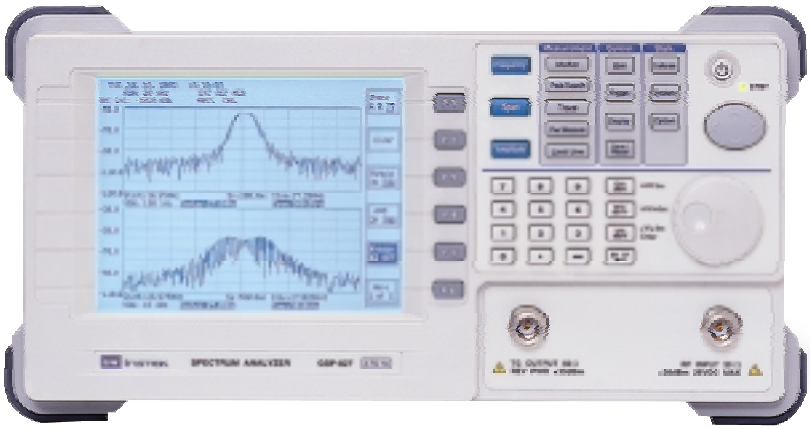
### SPECIFICATIONS

| | |
|---|---|
| **FREQUENCY** | |
| **Frequency Range** | 9kHz~2.7GHz |
| **Aging Rate** | ±10ppm, 0~50 °C, 5ppm/yr |
| **Span Range** | 2kHz~ 2.5GHz in 1-2-5 sequence, full span, zero span |
| **Phase Noise** | -85dBc/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** | -100dBm~+20dBm : 1MHz~2.5GHz @3k RBW<br>-95dBm~+20dBm : 2.5GHz~2.7GHz @3k RBW<br>-75dBm~+20dBm : 150kHz~1MHz @3k RBW<br>-65dBm~+20dBm : 50kHz~150kHz @3k RBW |
| **Overload Protection** | +30dBm, ±25VDC |
| **Reference Level Range** | -30dBm~+20dBm |
| **Amplitude Display Range** | 75dB |
| **Amplitude Accuracy** | ±1.5dB @100MHz |
| **Frequency Flatness** | ±1.5dB |
| **Amplitude Level Linearity** | ±1.5dB over 70dB |
| **DYNAMIC RANGE** | |
| **Average Noise Floor** | -100dBm: 1MHz~2.5GHz<br>-95dBm: 2.5GHz~2.7GHz<br>-75dBm: 150kHz~1MHz<br>-65dBm: 50kHz~150kHz |
| **Third Inter-Modulation** | <-70dBc @-40dBm Input, 2MHz apart |
| **Harmonic Distortion** | <-60dBc @-40dBm Input |
| **Non-Harmonic Spurious** | <-60dBc @typical down from Reference Level 150k~2.7GHz |
| **DISPLAY SYSTEM** | |
| **Display Device** | 640 x 480 high resolution graphical LCD, B&W |
| **Display Function** | Contrast, backlight ON/OFF, Invert screen split window: upper and lower |

### SPECIFICATIONS

| | |
|---|---|
| **FUNCTIONS** | |
| **Marker Mode** | Normal and delta mode<br>Number: Up to 10 in multi marker mode |
| **Internal Memory** | 100 traces and setup for Save/Recall |
| **Peak Search** | To peak, to center , next peak, peak right, peak left and peak track |
| **Trace Number** | Number:2, tr A and B for display memory<br>Functions: peak hold, average, freeze, math.<br>Detect: sample, peak+, AVG 1/2/3, quasi-peak |
| **Power Measurement** | ACPR x 2, OCBW, Channel Power |
| **Trigger** | Functions: Video, External<br>Mode: continuous, single<br>Source: video, external (0~5V rising edge)<br>Setting: Trigger delay, Trigger frequency |
| **Limit Line** | Number: 2, high and low<br>Functions: Edit:Insert, Delect, Undo Pass/Fail |
| **Calibrate Signal** | 100MHz, -30dBm |
| **Interface** | RS-232C standard |
| **CONNECTORS** | |
| **RF Input** | Type : N female, 50Ω nominal<br>RF input VSWR : <1.5:1, @0dBm Reference Level |
| **External Reference Clock Input** | Type: BNC female<br>1M, 1.544M, 2.048M, 5M, 10M, 10.24M, 13M, 15.36M, 15.4M, 19.2M |
| **Reference Clock Output** | Type:BNC female, 10MHz |
| **DC Input** | Jack:5.5mm, 12V |
| **RS-232C** | Sub-D 9 pins female |
| **POWER SOURCE** | AC 100 ~ 240V, 48 ~ 63Hz |
| **ACCESSORIES** | Instruction manual x 1, Power cord x 1 |
| **DIMENSIONS & WEIGHT** | 330(W) x 170(H) x 340(D) mm, Approx. 4.5kg |

**Note: Need to Collocate the Optional Accessories.**



## GSP-827

### ORDERING INFORMATION

**GSP-827** 2.7GHz Spectrum Analyzer

**Option**

**Opt. 01 Tracking Generator**

| | |
|---|---|
| **Frequency Range** | 9kHz ~ 2.7GHz |
| **Amplitude Range** | -50dBm ~ 0dBm |
| **Amplitude Accuracy** | ± 1dB@100MHz, 0dBm |
| **Amplitude Flatness** | ± 1.5dB@0dBm |
| **Harmonics** | <-30dBc typical |
| **Reverse Power** | +30dBm |
| **Impedance** | Type: N female, 50Ω nominal |
| **RF Output VSWR** | < 1.5 : 1 |

**Opt. 02 AC/DC/Battery Operation with Battery pack** AC 100V ~ 240V , DC 12V and 10.8V Li-Ion battery pack x 2)

**Opt. 03 ± 1ppm Stability**
± 1ppm , 0 ~ 50°C, ± 1ppm/yr

**Opt. 06 GPIB Interface**
IEEE 488 bus

**Opt. 07 Soft Carrying Case**
GSC-001

**Opt. 08 General Kit set**
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)x2
GSC-002: Kit box x 1

**Opt. 09 CATV Kit set**
ADP-001: adaptor, BNC(J/F) ~ N(P/M) x 2
ADP-101:adaptor,BNC(J/F)75Ω~BNC(P/M)50Ω x 2
GTL-304: RF cable assembly(RG223,N(P)-N(J),300mm)x2
GSC-003: Kit box x 1

**Opt. 10 RLB Kit set**
GAK-001: termination 50Ω, N(P) x 1
GAK-002: Cap with chain, N(P) x 1
GTL-302: RF cable assembly(RG223,N(P),300mm)x2
GSC-004: Kit box x 1

**Opt. 11 DC Power Line**
GTL-401: DC power cord with DC Jack and lighter plug,Current 5A

**Opt. 12 EMI Filters (*)**
RBW Selections: 9kHz and 120kHz, 6dB bandwidth
RBW Accuracy: 15%

**Opt. 13 Demodulator (*)**
Demodulation: AM, FM
Output: Internal speaker, 3.5mm stereo jack wired for mono operation

**Opt. 14 EMI filters and 300Hz RBW (*)**
RBW Selections: 9kHz and 120kHz,6dB bandwidth 300Hz,3dB bandwidth
RBW Accuracy: 15%

**Opt. 15 EMI filters and Demodulator (*)**
RBW Selections: 9kHz and 120kHz, 6dB bandwidth
RBW Accuracy: 15%
Demodulation: AM, FM
Output: Internal speaker, 3.5mm stereo jack wired for mono operation

**Opt. 16 EMI filters, 300Hz RBW and Demodulator (*)**
RBW Selections: 9kHz and 120kHz, 6dB bandwidth
300Hz, 3dB bandwidth
RBW Accuracy: 15%
Demodulation: AM, FM
Output: Internal speaker, 3.5mm stereo jack wired for mono operation

**Note (*): Only one option could be selected among option 12 to 16 for any given GSP-827 unit.**

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