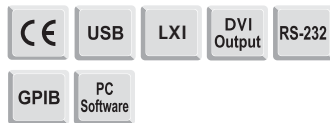


GSP-8800/8380

8.0GHz/3.8GHz
頻譜分析儀GW INSTEK
Simply Reliable

特 點

- * 頻率範圍
 - GSP-8800 : 9kHz ~ 8.0GHz
 - GSP-8380 : 9kHz ~ 3.8GHz
- * RBW : 1Hz ~ 1MHz; VBW: 10Hz ~ 1MHz
- * 相位雜訊 : -104 dBc/Hz Typical
- * DNAL : -160dBm/Hz Typical @ PreAmp On
- * 內建 AM/FM 解調
- * 內建 Time Spec 功能
- * 量測功能 : ACPR/OCBW/CHPW, NdB Bandwidth, Freq. Counter, Noise Marker
- * 內建20dB 前置放大器
- * 通訊界面 : Lan, USB Host/Device
- * 顯示螢幕 : 10.4" XGA Output (1024*768)
- * 選配 : 追蹤產生器, EMI濾波器

應 用 範 圍

- * 頻譜特性檢查及分析
- * 分析AM, Fm信號特性
- * 監控衛星新聞轉播車的衛星上傳信號
- * 需要體積緊湊的測試系統
- * 測量射頻電纜, 衰減器, 濾波器及放大器的頻率響應

GSP-8800/8380是固緯電子全新推出的基礎型頻譜分析儀，最高可支援8.0GHz與3.8GHz的頻率範圍，它提供射頻產品在生產/開發階段的測試需求。GSP-8800/8380的解析頻寬(RBW)的可調範圍為1Hz ~ 1MHz、相位雜訊可達-104dBc/Hz、底噪最低可達-160dBm/Hz (Typical)；並內建20dB放大器，具備AM/FM信號解調功能，Time Spec顯示功能，以及ACPR/OCBW/CHPW通道測試功能，可滿足一般的RF信號量測。

為了讓信號觀測更加清楚，GSP-8800/8380採用了10.4吋大尺寸螢幕，支援XGA(1024*768)解析度；在通訊界面部分，GSP-8800/8380提供了USB與Lan兩種介面。透過USB Host，使用者可快速抓取量測後儲存的檔案，而USB Device與Lan介面則是可讓使用者透過專屬的PC軟體進行控制，或者使用對應的指令集設計所需的程式。

此外，GSP-8800/8380提供了兩個選擇配備，分別為TG與EMI Detector。GSP-8800的TG功能在訂購時就需決定是否加裝，其他的選配則都可透過對應的軟體授權 (Soft-Key)就可開啟購買的選配，大幅度提升使用效率。



Website



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規格				
Model	GSP-8380		GSP-8800	
FREQUENCY				
FREQUENCY				
Range	9 kHz ~ 3.8 GHz		9 kHz ~ 8.0 GHz	
Resolution	1 Hz			
FREQUENCY SPAN				
Span Range	0 Hz, 100 Hz to max. frequency of instrument			
Span Uncertainty	±span / (sweep points-1)			
INTERNAL FREQUENCY REFERENCE				
Span Range	10.000000 MHz			
Reference Frequency Accuracy	±[(days from last calibrate × freq aging rate) + temperature stability + initial accuracy]			
Temperature Stability	<1ppm	15°C ~ 35°C	<1ppm	15°C ~ 35°C
Aging rate	<1ppm/year			
Initial Accuracy	<1ppm			
SSB PHASE NOISE				
Offset From Carrier	fc=1 GHz, RBW= 1 kHz, VBW=1kHz, 20°C ~ 30°C,avearge ≥40			
10 kHz	< -104 dBc/Hz	Typical	< -104 dBc/Hz	Typical
100 kHz	< -106 dBc/Hz	Typical	< -106 dBc/Hz	Typical
1 MHz	< -115 dBc/Hz	Typical	< -115 dBc/Hz	Typical
BANDWIDTH				
Resolution Bandwidth	1Hz to 500kHz (1-3-5-10 steps by sequence), 1MHz			
	200Hz, 9kHz, 120kHz, 1MHz	EMI Filter(6dB), Optional	200Hz, 9kHz, 120kHz, 1MHz	EMI Filter(6dB), Optional
RBW Uncertainty	< 5%	Typical, RBW ≤ 1 MHz	< 5%	Typical, RBW ≤ 1 MHz
Resolution Filter Shape Factor (60 dB: 3 dB)	< 5: 1	Typical, digital and close to Gaussian shape	< 5: 1	Typical, digital and close to Gaussian shape
Video Bandwidth (VBW)	10 Hz ~ 1 MHz			
AMPLITUDE				
AMPLITUDE AND LEVEL				
Amplitude Measurement Range	DANL ~ +10 dBm	100 kHz ~ 1 MHz, Preamp Off	DANL ~ +10 dBm	100 kHz ~ 10 MHz, Preamp Off
	DANL ~ +20 dBm	1 MHz ~ 3.8 GHz, Preamp Off	DANL ~ +20 dBm	10 MHz ~ 8 GHz, Preamp Off
Reference Level	-80 dBm ~ +30 dBm	0.01dB by step	-80 dBm ~ +30 dBm	0.01dB by step
Preamp	20 dB	100 kHz ~ 3.8 GHz	20 dB	100 kHz ~ 8 GHz
Input Attenuation	0 ~ 40 dB, in 1 dB step		0 ~ 40 dB, in 1 dB step	
Max Input DC Voltage	50 VDC			
Max Continuous Power	+30dBm	Average continuous power	+30dBm (1W)	Average continuous power
Displayed Average Noise Level (DANL)				
Preamp Off	Input Attenuation=0 dB,ref. level ≥60dBm, trace average ≥ 40. RBW normalizes to 1Hz,DETECTOR = SAMPLE,RBW =100Hz, VBW = 100Hz			
	9 kHz ~ 1MHz	<95 dBm (typical), <88dBm	9 kHz ~ 1MHz	-95dBm (typical), <-88 dBm
	1 MHz ~ 1 GHz	<-140dBm (typical), <-130 dBm	1 MHz ~ 500MHz	-140dBm (typical), <-130 dBm
	1 GHz ~ 3.8 GHz	<-138dBm (typical), <-128 dBm	500MHz ~ 3GHz	-138dBm (typical), <-128 dBm
			3GHz ~ 6GHz	-134dBm (typical), <-124 dBm
			6GHz ~ 8GHz	-129dBm (typical), <-119dBm
Preamp On	Input Attenuation=0 dB,ref. level ≥60dBm, trace average ≥ 40. RBW normalizes to 1Hz,DETECTOR = SAMPLE,RBW =100Hz, VBW = 100Hz			
	100 kHz ~ 1MHz	<-135 dBm (typical), <-128dBm	100 kHz ~ 1MHz	-135dBm (typical), <-128 dBm
	1 MHz ~ 1 GHz	<-160dBm (typical), <-150 dBm	1 MHz ~ 500MHz	-160dBm (typical), <-150 dBm
	1 GHz ~ 3.8 GHz	<-160dBm (typical), <-150 dBm	500MHz ~ 3GHz	-160dBm (typical), <-150 dBm
			3GHz ~ 6GHz	-154dBm (typical), <-144 dBm
			6GHz ~ 8GHz	-149dBm (typical), <-139dBm
FREQUENCY RESPONSE				
Filter Bandwidth	20°C ~ 30°C, 30% ~ 70% relative humidity, input attenuation=10 dB, reference frequency=50 MHz,SPAN = 200KHz,RBW = 10KHz,VBW= 10KHz,			
Preamp Off, fc ≥100 kHz	±0.8 dB	100K ~ 3.8GHz	±0.8 dB	100K ~ 8GHz
Preamp On, fc ≥1MHz	±0.9 dB	100K ~ 3.8GHz	±0.9 dB	100K ~ 8GHz
UNCERTAINTY AND ACCURACY				
RBW Switch Uncertainty	Reference: 10 kHz RBW at Frequency Center is 50 MHz			
	±0.2 dB	Log resolution	±0.2 dB	Log resolution
Input Attenuation Uncertainty	20°C ~ 30°C, fc=50 MHz, Preamplifier Off, 10 dB RF attenuation,RBW = 10K, 1 ~ 40 dB ±0.5 dB		1 ~ 40 dB ±0.5 dB	
Absolute Amplitude Uncertainty	20°C ~ 30°C, fc=50 MHz, Span=200 kHz, RBW=10 kHz, VBW=10 kHz, peak detector, 10 dB RF attenuation,average ≥ 20. 2db/div, 95% confidence level			
Preamp Off	±0.4 dB	input signal level -20 dBm	±0.4 dB	input signal level -20 dBm
Preamp On	±0.5 dB	input signal level -40 dBm	±0.5 dB	input signal level -40 dBm
Uncertainty	20°C ~ 30°C, fc=1MHz, signal input range 0~-50dBm, Ref Level range 0 ~ -50dBm, 10 dB RF attenuation, RBW =1kHz, VBW =1kHz,Preamp Off			
	±1.5 dB(typical)			
VSWR	<1.5, Nominal	Input 10 dB RF attenuation, 1MHz ~ 3.8GHz	<1.8, Nominal	Input 20 dB RF attenuation, 1MHz ~ 8GHz
DISTORTION AND SPURIOUS RESPONSE				
Second Harmonic Distortion	fc ≥ 50 MHz, Preamp off, signal input -20 dBm, 0 dB RF attenuation, 20°C ~ 30°C			
	-65 dBc			
Third-order Intermodulation	fc ≥ 50 MHz, Input double tone level -20 dBm, frequency interval 100 kHz, input attenuation 0 dB, preamplifier off, 20°C ~ 30°C			
	+10 dBm		+10 dBm	
1 dB Gain Compression	Nominal, fc ≥ 50 MHz, 0 dB RF attenuation, Preamp off, 20°C ~ 30°C			
	> -2 dBm			
Residual Response	Connect 50 Ω load at input port, 0 dB input attenuation, 20°C to 30°C, average ≥40. RBW= 300Hz, VBW=3kHz,SPAN = 2M			
	<-85 dBm	from 1 MHz ~ 3.8 GHz	<-85 dBm	from 1 MHz ~ 8 GHz
Input Related Spurious	<-60 dBc	-30 dBm signal at input mixer, 20°C ~ 30°C	<-60 dBc	-30 dBm signal at input mixer, 20°C ~ 30°C
SWEEP				
SWEEP TIME				
Range	10 ms ~ 3000 s	None-zero Span	10 ms ~ 3000 s	None-zero Span
	1 ms ~ 3000 s	Zero Span	1 ms ~ 3000 s	Zero Span
Sweep Mode	Continuous; Single			
TRACKING GENERATOR (OPTION 01)				
TRACKING GENERATOR OUTPUT				
Frequency Range	100 kHz ~ 3.8GHz		100 kHz ~ 8GHz	
Output Power Level Range	-40 dBm ~ 0 dBm		-40 dBm ~ 0 dBm	
Output power level resolution	1 dB			
Output Flatness	± 3 dB			
Maximum Safe Reverse Level	Average total power : +30 dBm, DC : ±50 VDC			
Impedance	50 Ω	Nominal	50 Ω	Nominal
Connector	N Type Female			
FREQUENCY COUNTER				
FREQUENCY COUNTER				
Resolution	1Hz, 10Hz, 100Hz, 1kHz			
Accuracy	±(frequency indication × frequency reference accuracy) + counter resolution			
INPUTS AND OUTPUTS				
RF INPUT				
Impedance	50 Ω	Nominal	50 Ω	Nominal
Connector	N Type Female			
REFERENCE INPUT				
Connector	BNC Female			
10MHz Reference Amplitude	0 dBm to +10 dBm			
Trigger Input				
Impedance	1 kΩ			
10MHz Reference Amplitude	BNC Female			
USB				
USB Host	Connector	A Plug	Connector	A Plug
	Protocol	USB 2.0 (Host End)	Protocol	USB 2.0 (Host End)
USB Device	Connector	B Plug	Connector	B Plug
	Protocol	2.0 Version	Protocol	2.0 Version
GENERAL				
Display	Type	TFT LCD	Type	TFT LCD
	Resolution	1024*768	Resolution	1024*768
	Size	10.4 inches	Size	10.4 inches
	Color	65,536 colors	Color	65,536 colors
Remote Control	USB Device	B Plug, supports USB TMC	USB Device	B Plug, supports USB TMC
	LAN TCP/IP Interface	RJ-45, supports 10Base-T/100Base-Tx	LAN TCP/IP Interface	RJ-45, supports 10Base-T/100Base-Tx
Mass Memory	Internal Memory	256M Bytes	Internal Memory	256M Bytes
Temperature	Operating Temperature	0°C to 40°C	Operating Temperature	0°C to 40°C
	Storage Temperature	-20°C to 70°C	Storage Temperature	-20°C to 70°C
Dimensions & Weight	421(W) x 221(H) x 115(D) mm; Approx. 5.0 kg (without package)			
AC Power Socket	100V ~ 240V, 50/60Hz			

The specifications apply when the function generator is powered on for at least 30 minutes under +20°C~+30°C.

規格若有局部變更，恕不另行通知！ GSP-8000_C_D1DH

購 買 資 訊		選 購 配 件	
GSP-8800	8.0GHz 頻譜分析儀	Option 01 : TG 信號追蹤器 (GSP-8800 : 訂購時就須選擇/GSP-8380 (透過軟體開啟)	
GSP-8380	3.8GHz 頻譜分析儀	Option 02 : EMI Filter (透過軟體開啟)	
標準配件		ADP-001 N(M)-BNC(F) 轉接頭	GTL-301 N(M)-N(M) 射頻信號線
CD (使用手冊) x1, 電源線 x1		ADP-002 N(M)-SMA(F) 轉接頭	GTL-303 SMA(M)-SMA(M) 射頻信號線

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