USB Digital Step Attenuator

GDSA-069

Features

- Operation Frequency: 9KHz to 6GHz
- Wide Attenuation Range: 0 95.25dB, 0.25dB step
- USB Powered & controlled
- GUI for multiple device operation and sweep
- Easy programming with Python



Description

GA Technologies GDSA series is single channel RF Programmable Attenuator over 9KHz to 6GHz frequency range. GDSA provides 0 to 95.25dB wide range of attenuation in 0.25dB step.

GDSA is powered and controlled by USB interface without external power supply.

The software package includes API shared library and GUI, and designed for ease of use and simplifying multiple device operation. Utilizing GUI, user can search, connect, set attenuation, running sweep useful for fading simulation and verify status of all devices connected via USB hub. User can start to use GDSA right away with GUI without programming.

GUI Application provides:

- Search, connect, control and display status connected multiple devices
- ✓ Set Fixed attenuation of selected device
- Attenuation Sweeping with patterns: Saw Tooth, Triangle, Sine, Random and user created attenuation list
- Save and Recall settings functionality to minimize

RI	F Digital Step Attenuator	_ 🗆 ×
Search, Connect and select device		
Connect Disconnect	○ Fixed ● Swept Sa	ve Recall
Device 0 (A906H13R)	Fixed Set Atten 0.0 0.25 ▼ 0	A
Dev Serial Num Atten Mode		
0 A906H13R 0.0 Swept		
1 A906H2MC 0.0 Swept	Swept	
2 A906H13V 0.0 Fixed	Pattern Sine 🔻	No Atten
3 A906H13P 0.0 Fixed	Shart Share Share DualWare)	55 93.25
	Start Stop Step Dwett(ms)	56 93.75
	0.0 95.25 0.25 0.5	57 94.25
	Apply Setting	58 94.75
	Ctart CtartAll Ctan Cingle	59 95.0
	Start StartAll Stop Single	60 95.25
		61 95.25
	50 - / / / /	62 95.25
The number of Valid devices: 4 Serial Number: A906H13R		Apply Edit

The API included enables User to program GDSA with a few lines of code that makes custom programming very easy and simple. The API, shared library supports **Python3**, **C**, **C++**, **C#** & **VB.Net**



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Applications

- 3G, 4G, 5G NR, LTE and DVB Fading Simulators
- Automated Test Equipment
- Receiver Sensitivity Test

Specifications

Operating Frequency	9KHz to 6GHz
Attenuation Range	0 to 95.25dB
Attenuation Accuracy	0.25dB @ 0 to 31.75dB
	0.5dB @ 31.75 to 63.5dB
	0.75dB @ 63.5 to 95.25dB
Transition Time	275 ns
Dwell Time	Min. 400 us
Max Input Power, CW (CW: 100% duty cycle)	9KHz to 48MHz: +9dBm
	48MHz to 6GHz: +23dBm
0.1dB Compression Point	48MHz to 6GHz: +31dBm
Impedance	50 ohm
Return Loss	Better than 10dB
Insertion Loss	Min. 1.5dB @ 9KHz
	Max. 9.2dB @ 6GHz

Notes:

- 1. These specifications are subject to change without notice.
- 2. Exceeding the maximum input power may cause damage.

Operating System support

- Windows 7, Windows 10: Supports: Python3, C, C++, C# and VB.Net
- Linux: Supports: Python3
 - · Ubuntu 16.04 32bit and 64bit
 - · Debian 9.5 32bit and 64bit/
 - · CentOS 7 64bit
 - openSuse 15 64bit



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Included Accessories

- RF Digital Step Attenuator
- USB flash drive containing software, manual and sample code
- USB cable: A male to mini B

Physical Dimension

**Dimension in mm.





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