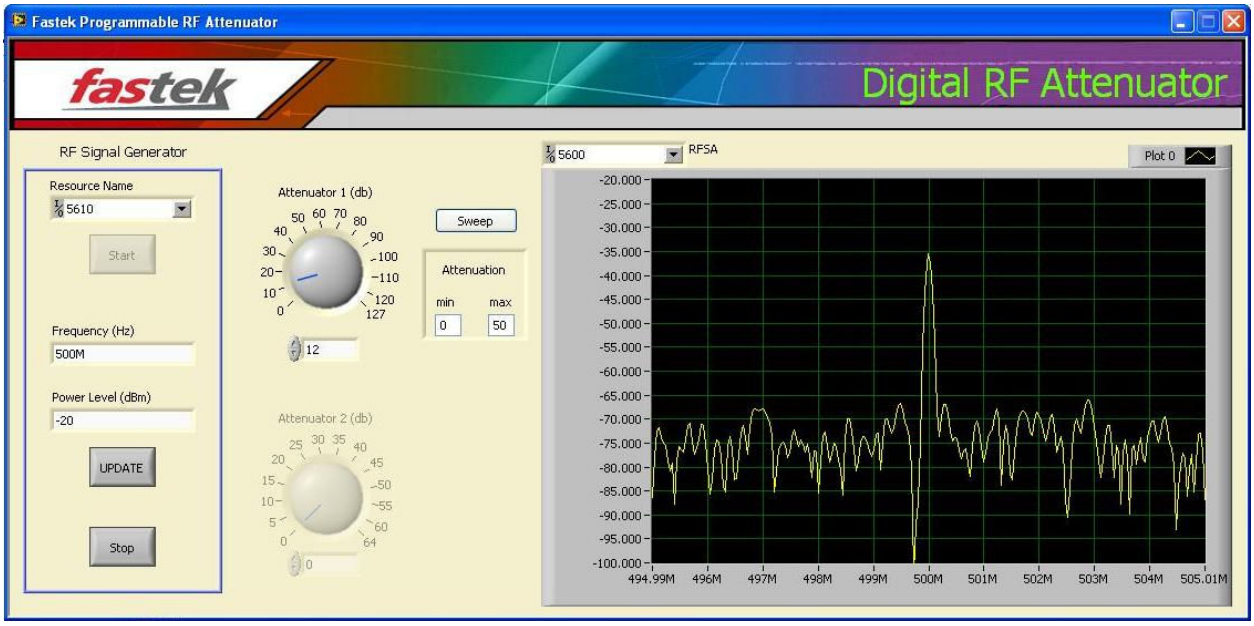
System Engineering, Testing,
Development Services

RFA-1000 Digital RF Attenuators



***Fastek* International Ltd.** introduces a line of high power, digitally-controlled RF attenuators. Multiple attenuators can be cost effectively controlled by one PXI driver.

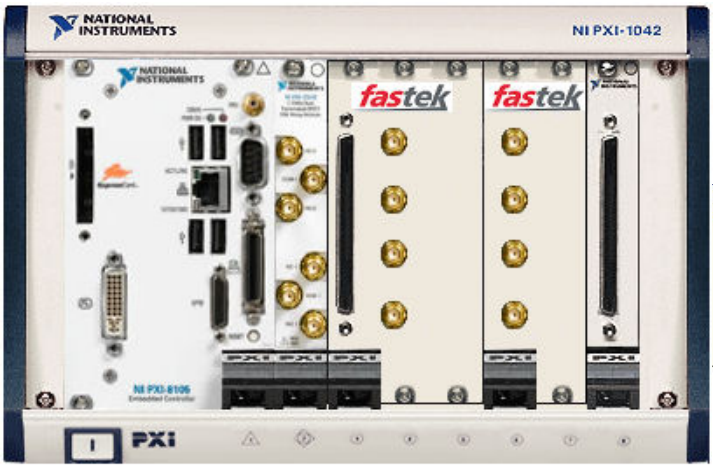
One of the many benefits is that complete calibration of RF paths can be measured for integration within the test station and LabVIEW control.

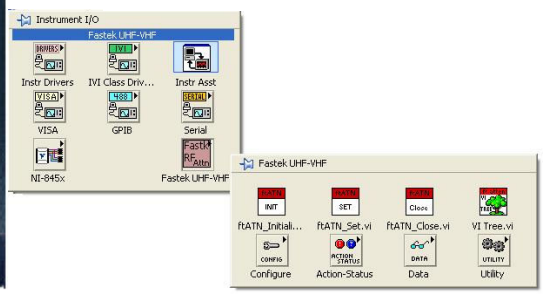
PXI maximizes the integration and synchronization of various Test/Measurement components including Signal Generators, Analyzers, and RF Switches.

Instrument Driver Software and Soft Front Panel are included (multi-processor & multi-OS support). Optional FPGA Control provides Dynamic Attenuation Profiling.

Deliverables on CD

- LabVIEW Library
- Program Example
- Soft Front Panel
- Users Guide
- Installation .exe





Fastek Custom Palette for Programmatic Control of the Digital RF Attenuator

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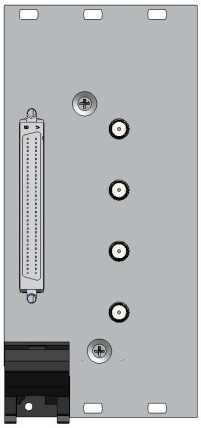
Sample Technical Specifications

Characteristic	VHF/UHF	UHF/L-Band (GPS)	UHF/L-Band (GPS)
Frequency Range (MHz)	20 – 1000 MHz	400 – 2200 MHz	800 – 2200 MHz
Attenuation Range/Step Size	0-127 dB / 1 dB	0-63.5 dB/ 0.5 dB	0-127 dB / 1 dB
Attenuation Accuracy/Range	0.2 dB; 20-500 MHz 0.4 dB; 500-1000 MHz	0.25 dB; 0-15.5 dB 0.35 dB; 16-63.5 dB	0.3 dB
Impedance	50 Ohms	50 Ohms	50 Ohms
VSWR	1.4 : 1	1.5:1	1.4:1
Insertion Loss	3 dB Nominal 4 dB Maximum	4 dB Maximum	5.2 dB Maximum 3.1 dB typ.: 800 MHz 4.8 dB typ.: 2200 MHz
RF Input Power	+ 10 dBm	+20 dBm Operation +30 dBm No Damage	+20 dBm Operating +24 dBm (1 dB compr.)
Switching Speed	5 uS	2 uS	5 uS

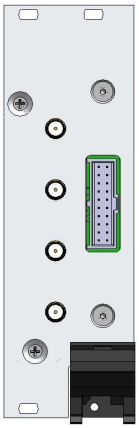
Fastek's design leverages the open PXI platform to achieve the bandwidth and sampling speeds required for the most demanding applications.

Product Differentiators

- Available up to 6 GHz
- Fast Switching Speed - High Power
- Customizable PXI Form Factor
- Controllable from LabVIEW and TestStand
- Automated Testing using TestStand
- Available in 1/10, ¼ , ½ and 1 dB steps
- Synchronous and triggerable control
- Expandable to 4 (127dB Step) Attenuators per DIO
- Single Control of Ganged Attenuator Operation to Double Dynamic Range
- Targeted for GPS, Radar, TCAS, RF development and production test
- Soft panels integrate seamlessly into LabVIEW coding environment



Three Slot Form Factor Dual Channel plus Control



Two Slot Form Factor Dual Channel add-on Module

Contact Fastek for customized development of all your RFA-1000 Applications.

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