TEA13000-12 Rev B Feb 2013

Preliminary

DESCRIPTION

The TEA13000-12 is a Laboratory-quality, RF Digital Attenuator with 30dB dynamic range and only 2dB typical insertion loss. The attenuator is based on an analog circuit driven by a 16bit ADC via USB control giving extremely fine control. The analog circuit is digitally corrected to give a near linear control function.

The TEA13000-13 is the smallest USB microwave DSA available and is also priced significantly below the current market offerings.

Applications include dynamically setting gain or power. When combined with a power sensor, ALC or AGC loops can be implemented. Use of the optional HUB allows the DSA to remain in a given state even after the host PC is removed from the system.

The attenuator contains 0.5GB of flash memory used for installation files, test data and other supporting documentation. Drivers, utilities and documentation are available on the attenuator itself.

CALIBRATION

Full test data is performed at the factory and results are stored in flash memory on the unit.

BENEFITS

- 30dB Dynamic Range
- USB 2.0 Interface
- 0.1GHz to 13GHz

FEATURES

- Low Insertion Loss
- Windows XP, 7 or 8 supported
- 16 bit control resolution
- Max Input +18dBm

TELEMAKUS LLC
RF DESIGN SERVICES

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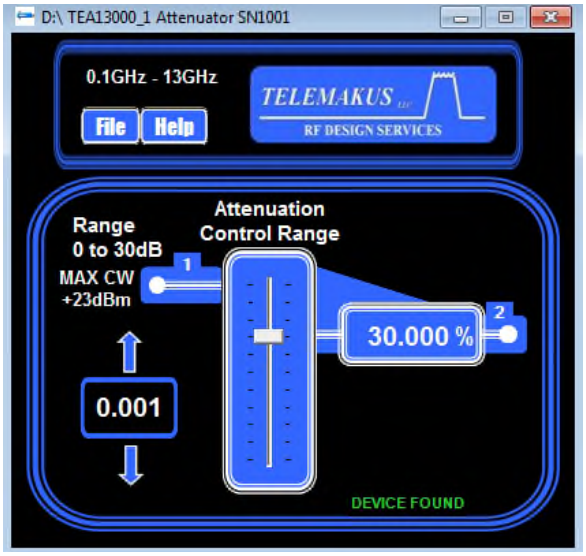

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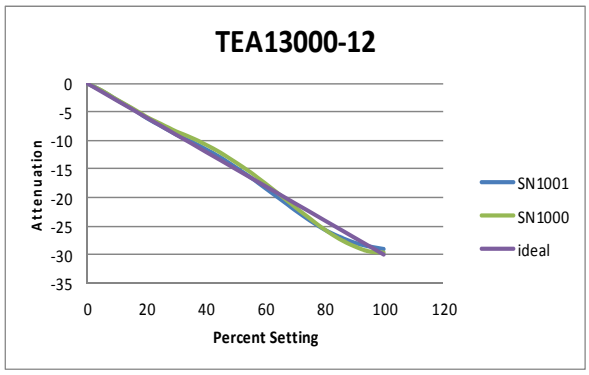
Ordering information

Model	Frequency	Max Input	
TEA13000-12	0.1GHz to 13GHz	**+18dBm**	

Easy to use graphical interface with both numeric entry or slider controls.



Typical Performance
At 10GHz

Specifications

Parameter	Specification
Frequency Range	0.1GHz to 13GHz
Dynamic Range	30dB
Interface	USB 2.0
Current	150mA (From USB interface)
High Linearity	+25dBm IIP3 @0dB Attenuation
P0.25dB	+9dBm
Insertion Loss	2dB typ /4dB max @13GHz
Attenuation Accuracy	+/-0.5dB typ, +/-1.5dBMax Vs Ideal
RF Connectors	SMA Male/Female
USB Connector	Mini A

Environmental

Temperature Range	-40 to +55 degC		
Not Environmentally sealed			

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