

- Key Features -

- Front Panel OLED Display
- 63 dB Range, 0.5dB steps
- 100MHz to 12GHz
- Standalone Operation - no PC Needed
- USB SCPI Serial PC Remote Control
- Tiny Aluminum Case
- Micro-USB Powered
- Solid-state Reliability
- Affordably Priced
- Audio & Visual Feedback
- Optional Ethernet

DS Instruments

DAT64H

63 dB Programmable Ultra-wideband RF Attenuator with OLED Display and User Interface



DAT64H, A Programmable Attenuator with User Interface

The DAT64H is a fully self-contained attenuator instrument with attenuation range 0 to 63 dB with 0.5dB step size. Control of attenuator setting can be accomplished both by the front user interface and via computer using the USB port.

The user interface has UP/DOWN buttons and an OLED type display. The display indicates the current attenuation value as well as other instrument information.

Ease of Use

The user can control the DAT64H attenuation both from front panel buttons or remotely and from the USB port. **No PC is needed to operate the DAT64H as step attenuator.**

Remote Operation

Industry standard SCPI commands allow the DAT64H to be controlled by any PC with a USB interface.

The micro USB port is configured as a COM port. This allows third party software to access the DAT64H as if it were a standard COM device with no additional drivers, software, or API.

All power required by the device is supplied by the USB connection.



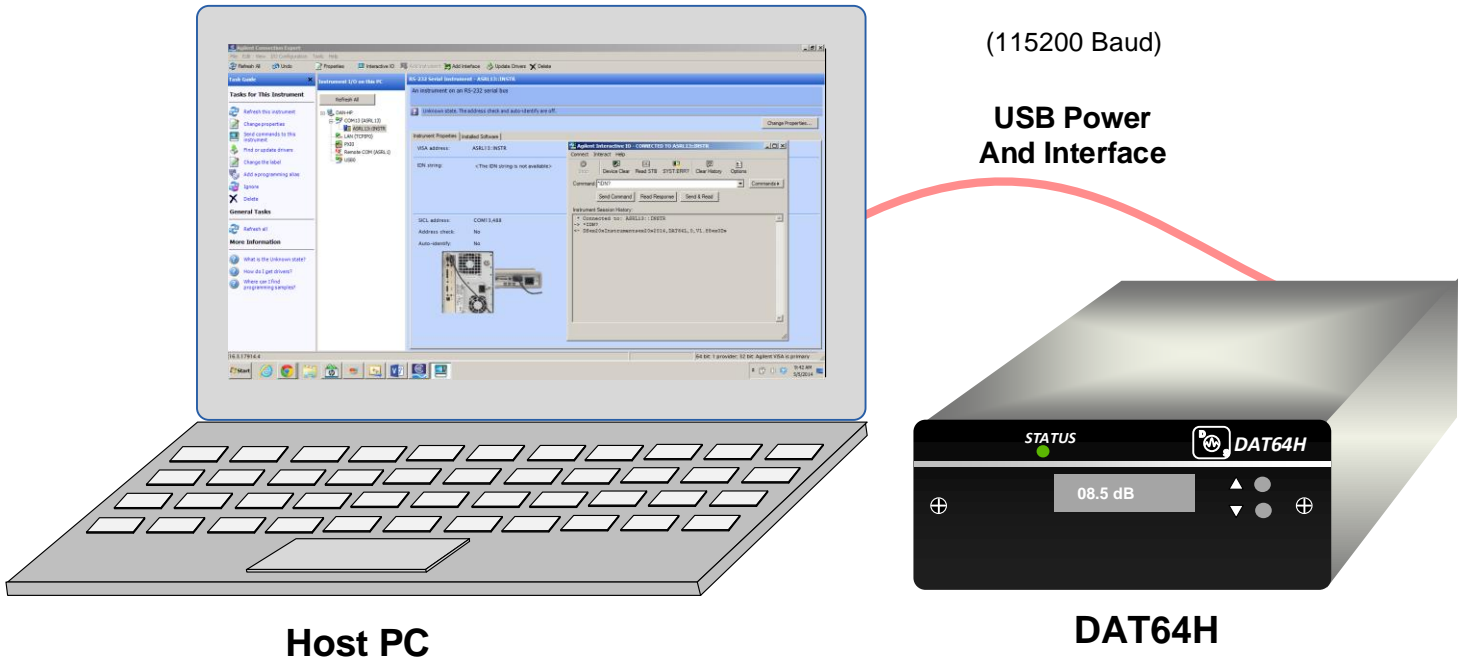
DAT64H

SPECIFICATIONS

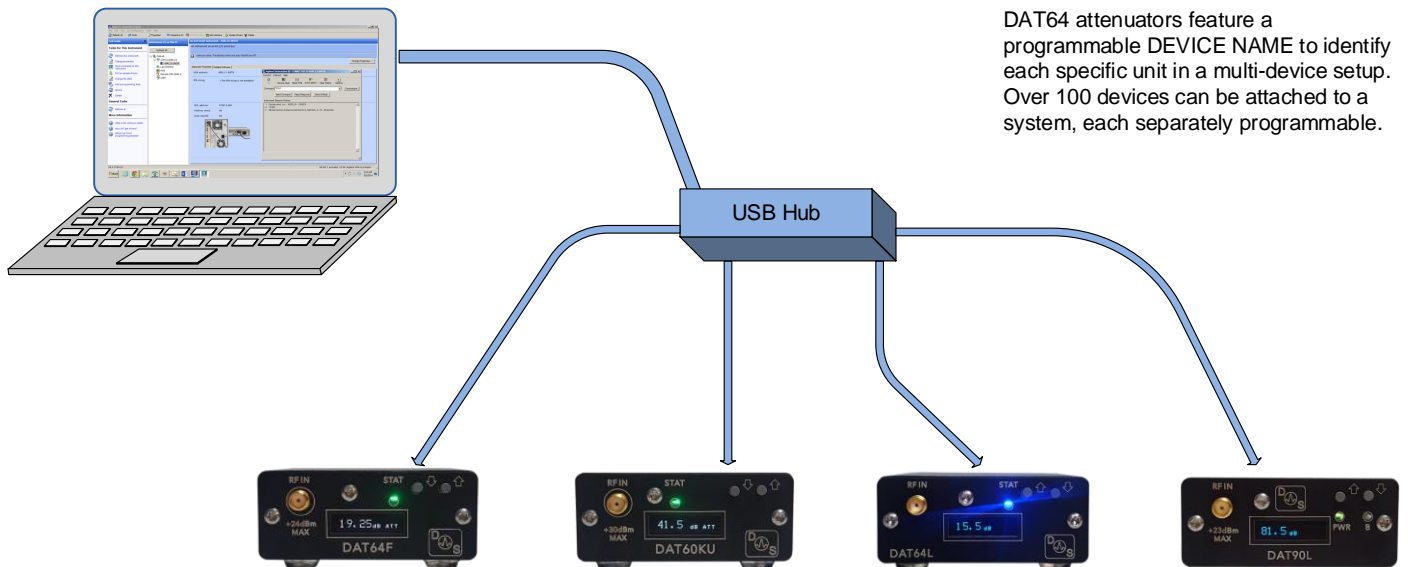
Parameter	Min	Max	Typ	Units
DAT64H Frequency Range	100	12000		MHz
Insertion Loss, 100 to 2000MHz	4	5	4	dB
Insertion Loss, 2 to 6GHz	6	7	6	dB
Insertion Loss, 6 to 10GHz	7	10	8	dB
Insertion Loss, 10 to 12GHz	9	12	10	dB
In/ Out VSWR	1.25:1	1.6:1	1.35:1	-
Attenuation Range	0	63.0		dB
Minnimum Step Size			0.5	dB
Step Size Error		±0.4		dB
Maximum Input Power		+23		dBm
Third Order Intercept		+38		dBm
Atten. Accuracy, All Atten. States (Referenced to Insertion Loss)		± (0.30 + 5% of Atten. Setting) Max		dB
Attenuator switching speed (No Buzzer or OLED)		2	1	mS
Micro USB Voltage	4.80	5.40	5.0	VDC
USB current requirement (no Ethernet)		200	150	mA
Temperature Range	-20	50	22	C

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Typical User connections for Remote Operation from PC



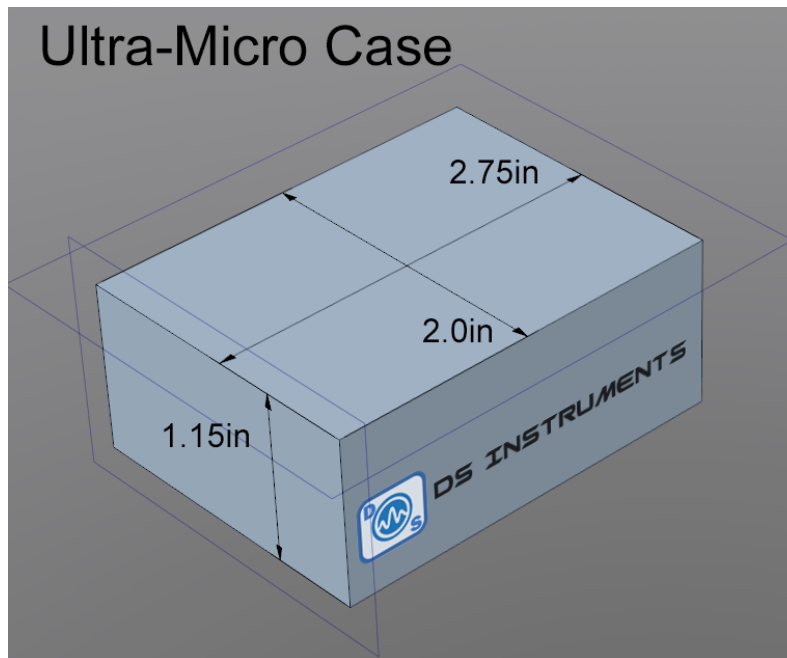
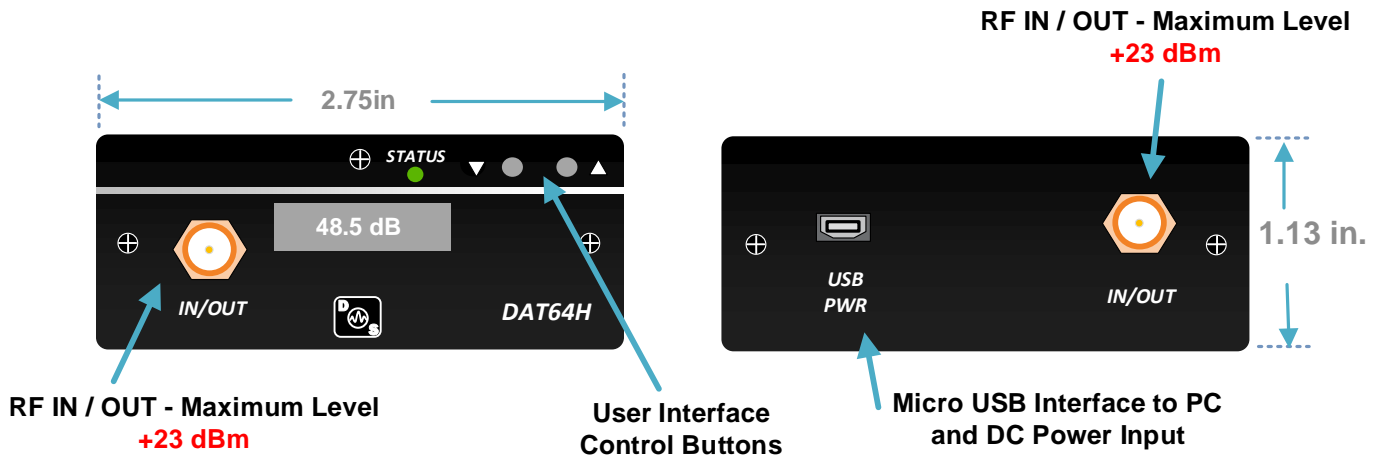
Multiple Attenuator Example Setup



DAT64 attenuators feature a programmable DEVICE NAME to identify each specific unit in a multi-device setup. Over 100 devices can be attached to a system, each separately programmable.

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DAT64H Front and Rear Panel Features



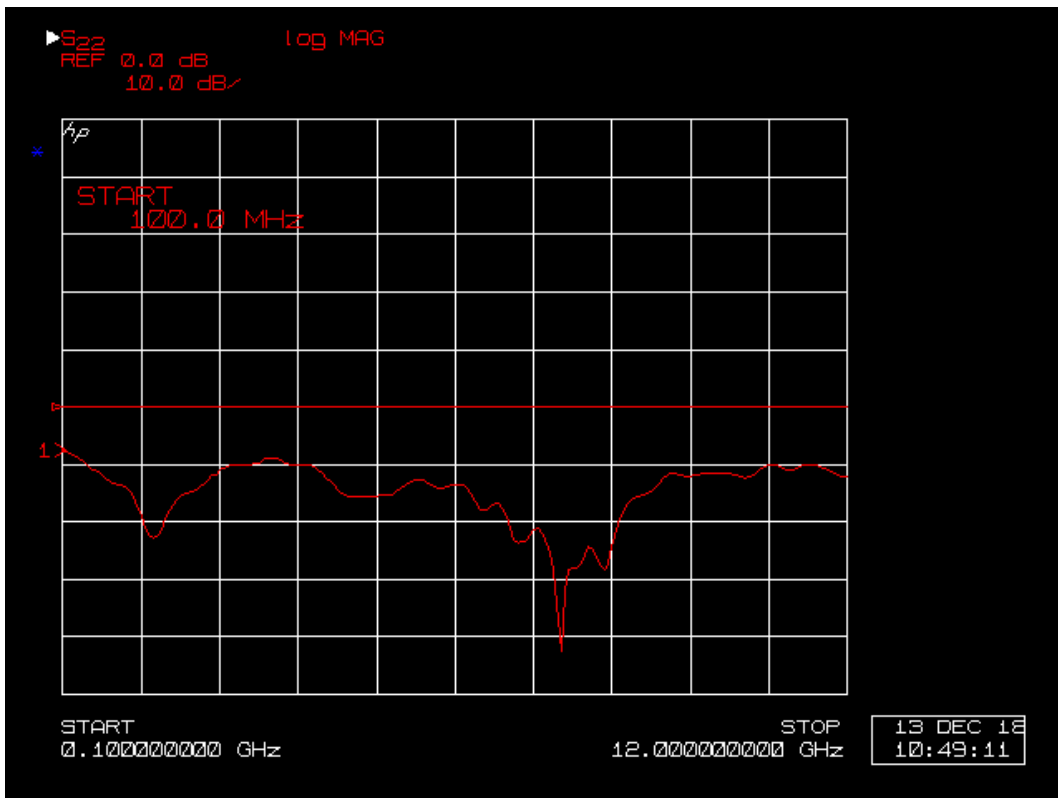
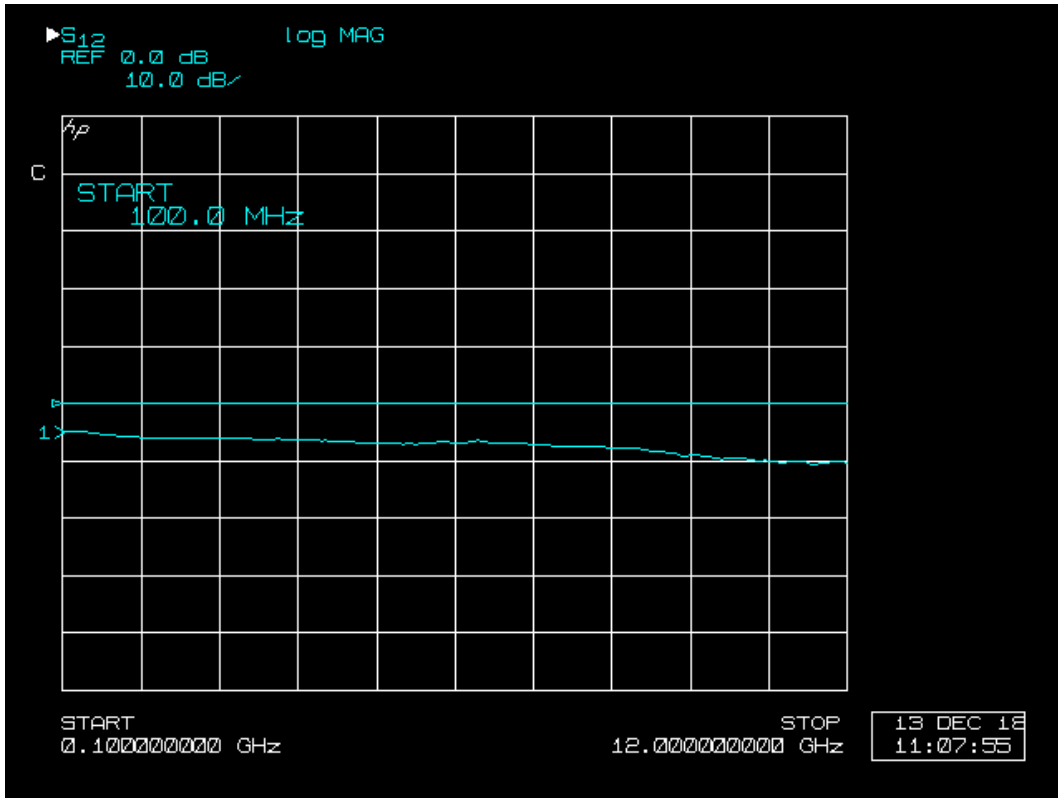
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Device Front and Rear I/O Ports



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Typical Insertion Loss and Return Loss



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USB COM Port SCPI Commands

ATT xy.z	- Set attenuation to "xy.z"
INCR	- Increase attenuation by step size
DECR	- Decrease attenuation by step size
INCR x	- Increase attenuation by "x"
DECR y	- Decrease attenuation by "y"
STEP xy	- Set the step size to "xy"
*IDN?	- Return standard identification string
*RST	- Reset device
*SAVSTATE	- Save current attenuation as default boot up value

(115200 bps – 8 Bits – Parity: none – Stop bits: 1 – Flow control: none)

Windows GUI



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Usage Notes

- RF Input and RF Output ports are INTERCHANGABLE but slightly better performance will result when used as labeled.
- Front buttons will automatically be **disabled** if the unit detects commands from a host PC to protect automated values.
- Remote operation via COM port is **115200** BAUD, NOT the default 9600.
- The minimum “0dB” setting is short for “INSERTION LOSS + 0dB” as with most RF devices.

DAT64H

Ordering Information

- | | |
|--|----------|
| • Model DAT64H, 0- 63dB, 100 to 12000MHz
Attenuator with OLED Display and Control Buttons | \$799.00 |
| • Option 1 – No display or buttons | \$739.00 |

Contact Information

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