

HYTEM

**31dB RF Attenuator
Band 100 MHz to 30GHz
Manual or USB control**

Type 03-02-577

**CARACTERISTIQUES TECHNIQUES
ET UTILISATION**

TECHNICAL SPECIFICATIONS AND USE

RF USB attenuator 100 MHz to 30 GHz

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CARACTERISTIQUES ET UTILISATION *TECHNICAL SPECIFICATIONS AND USE*

GARANTIE

WARRANTY



La maintenance de cet appareil doit être assurée par du personnel qualifié
muni des équipements appropriés

Pour tout problème de maintenance, veuillez contacter notre Service Clients :

The maintenance of this instrument can only be performed by qualified personnel
provided with the suitable equipments.

For any maintenance problems, contact our Customer Support Service :

HYTEM

2, bis rue du Bois Fourgon
91580 VILLECONIN
FRANCE
Tél : (33) 01 60 80 59 00
Fax : (33) 01 60 80 33 22
Email : hytem@hytem.net

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Photo non contractuelle

Using the RF USB attenuator:

This OLED screen RF attenuator can be used to control the RF power of any frequency source signal from 100MHz to 30GHz. It could be powered from 5V USB source or POWER BANK.

Its variable frequency attenuation can be done in manual mode, with the help of the UP & DOWN buttons near the display or with our [FREE available control software](#) "Radio Box Driver USB 1 or 2W" which permits to program variable attenuation versus time.

DOWNLOAD SOFTWARE URL: <http://hytem3.free.fr> and choose HRB for USB.

Technical specifications:

Frequency band:	100MHz to 30GHz *
RF connectors:	2.92mm (K) female
RF impedance:	50 Ω
Dynamic Attenuation :	31dB
Attenuation STEP:	1dB
Return Loss:	Better than -12dB typical 100-20000 MHz Better than -10dB typical 20000 -30000MHz
Attenuation Accuracy:	+/- (0.5 + 5%) of Atten.Setting Max (0.1 to 30GHz @ 1 to 15dB) +/- (0.6 + 8%) of Atten Setting Max (20 to 30GHz @ 16 to 31dB)
Max Power Input:	24dBm (*)
Power supply:	5V @ 40mA

* This attenuator is DC blocked

* 24dBm is the absolute maximum rating. Please use the attenuator with 10dBm typical or less

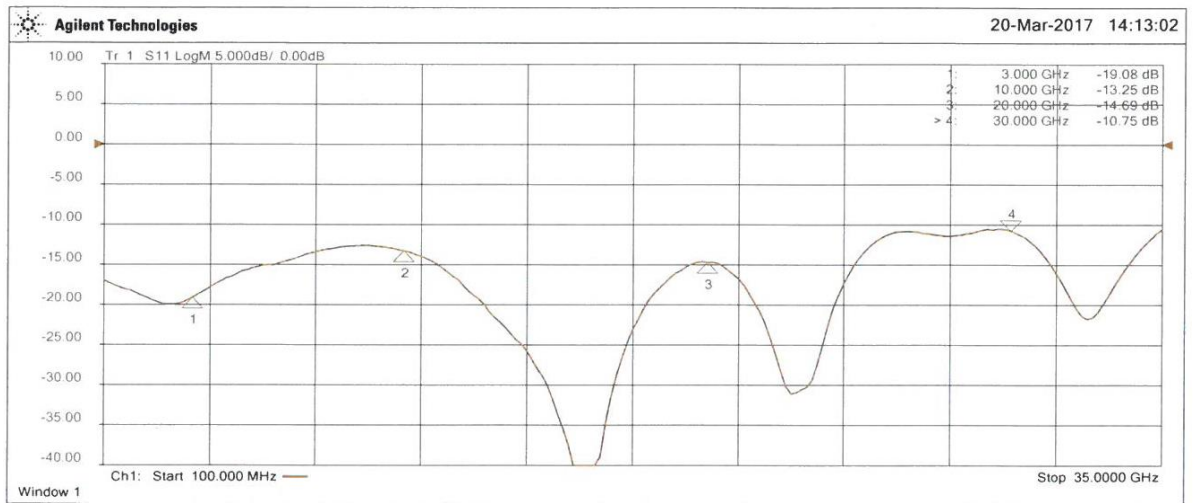
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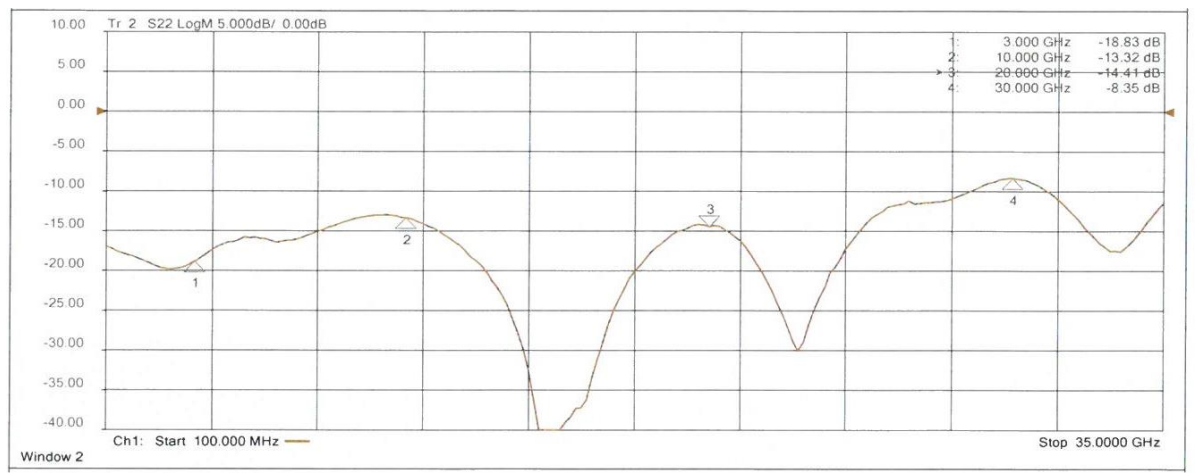
CARACTERISTIQUES ET UTILISATION

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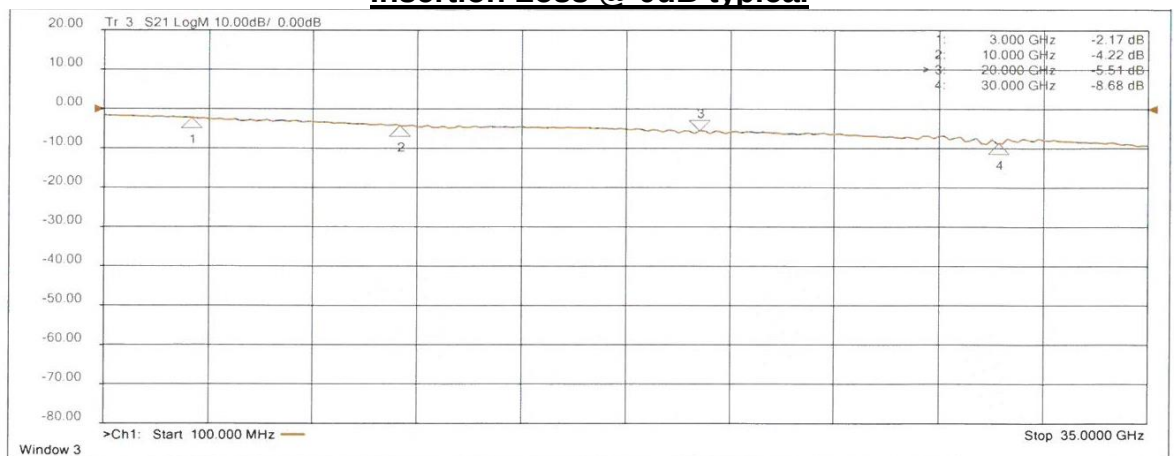
Input Return Loss Typical



Output return Loss Typical



Insertion Loss @ 0dB typical



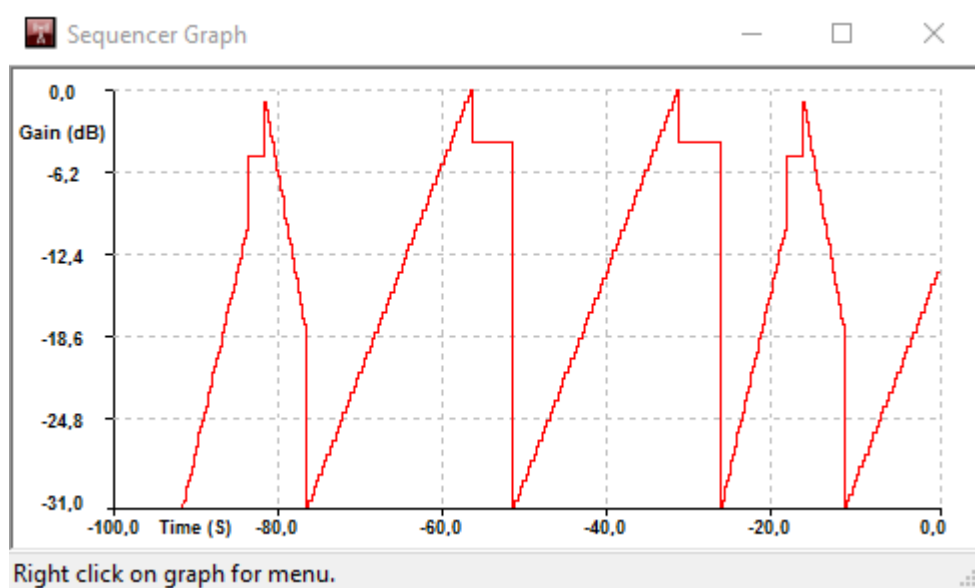
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USING SOFTWARE

Easy to use, our USB software can use sequence file to launch automatic attenuation versus time. You can use Basic commands to control attenuation direction and to see graph. Please refer to our free software help file on our download website.



The Sequence Editor [seq.sqc] window displays a table of actions for automatic attenuation control. The table has columns for Nb, Time, Action, From, To, and Duration. The actions are defined as follows:

Nb	Time	Action	From	To	Duration
1	0.0	Ramp	31.0 dB	10.0 dB	8.0 Sec
2	8.0	Step		5.0 dB	2.0 Sec
3	10.0	Ramp	1.0 dB	18.0 dB	5.0 Sec
4	15.0	Ramp	31.0 dB	0.0 dB	20.0 Sec
5	35.0	Step		4.0 dB	5.0 Sec
6	40.0	Repeat		4	1
7	65.0	Goto		1	
8	65.0	No Action			0.0 Sec
9	65.0	No Action			0.0 Sec
10	65.0	No Action			0.0 Sec
11	65.0	No Action			0.0 Sec

Buttons at the bottom: Load..., Save as..., Cancel, Ok Save.

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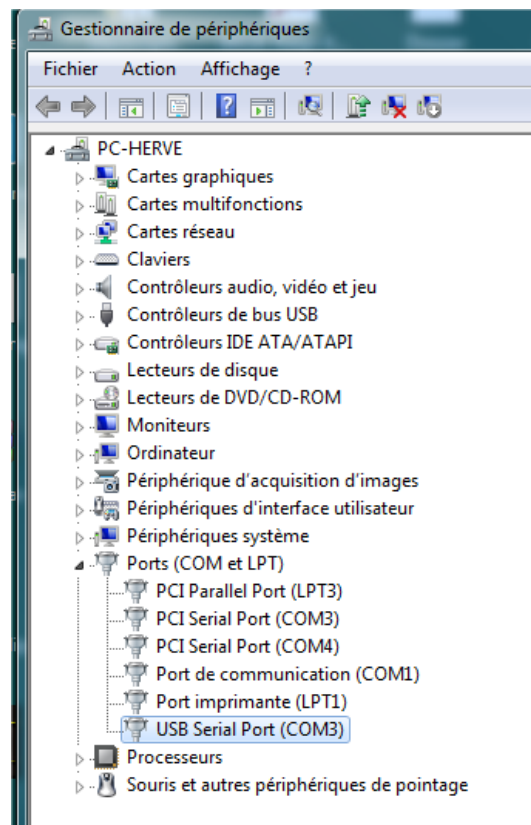
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CONNECTING USB ATTENUATOR TO WINDOWS COMPUTER

Go to device manager. With Win 7-8-10, search for this name: “USB serial port”
Then click on ports (COM & LPT)



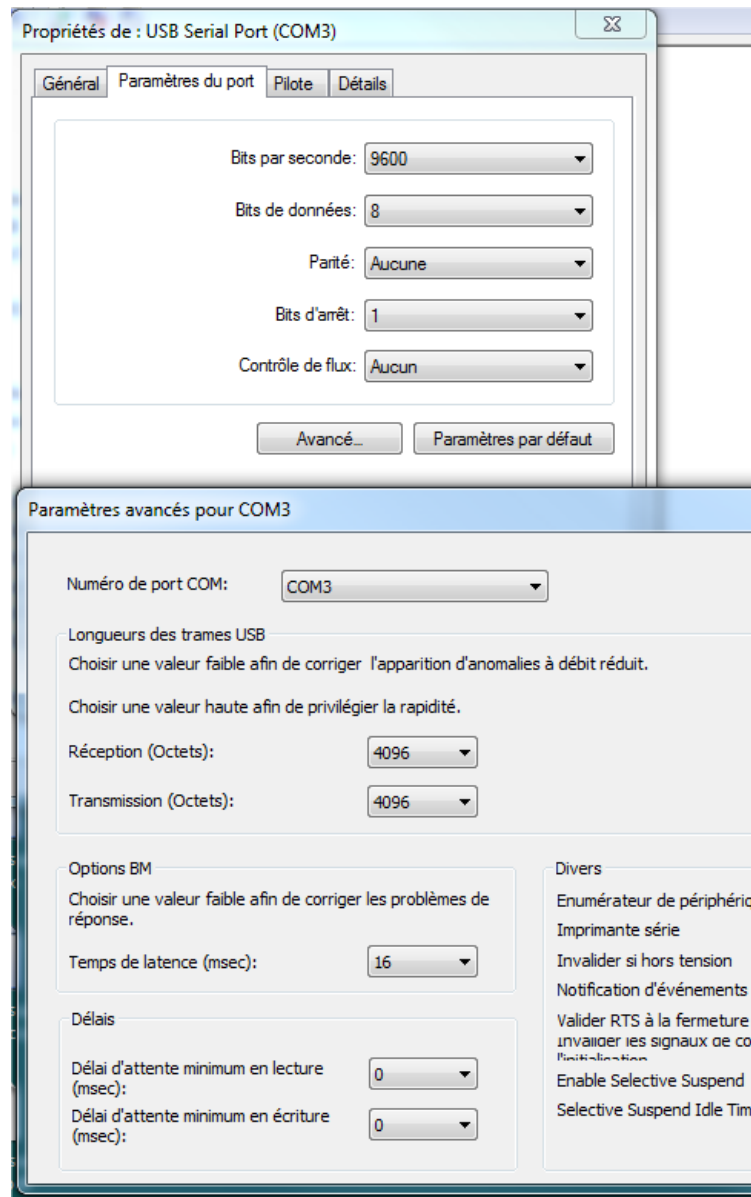
Find the name USB Serial port and see what COM is in use. In this example this is COM3.
But you can change it .

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Select new COM port as you want to use for this attenuator.
Remember the choosen COM port for HRB software (Hytem Radio Box)