Amtery

Quick Delivery. Reliable Quality. Instant Service

AT80008B-90-UE

8 - Channel Programmable Attenuator
50 - 8000 MHz, 90 dB, 0.25 dB Step

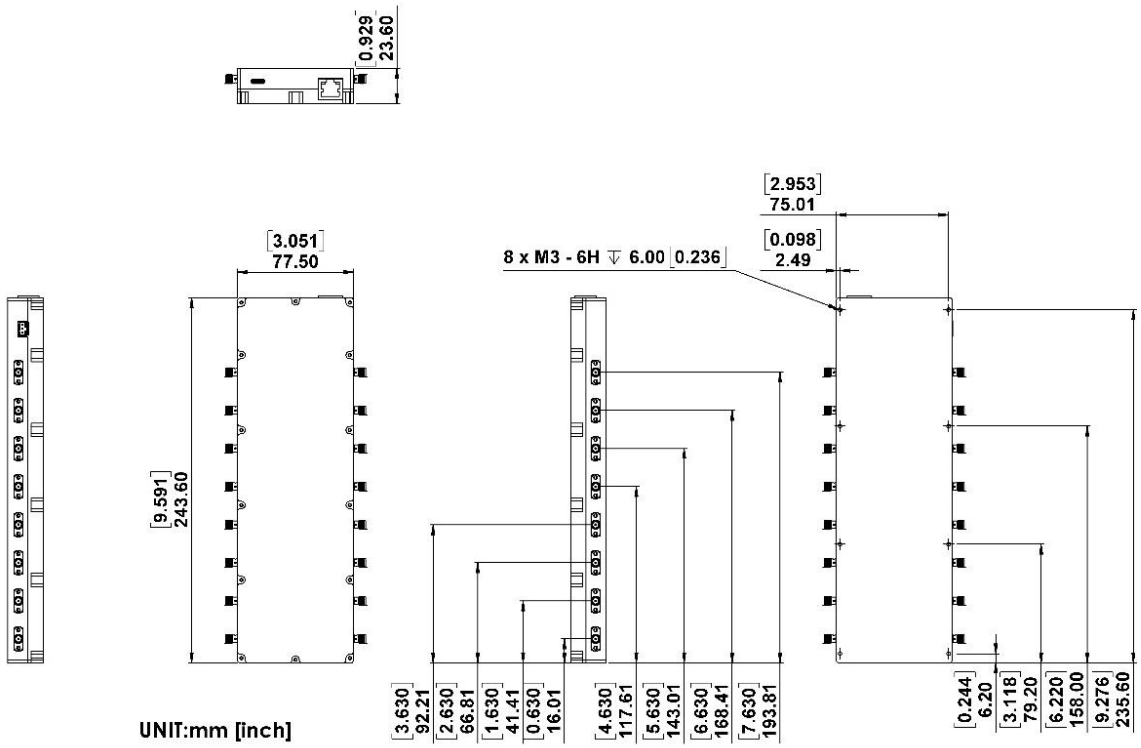
RoHS Compliant

Insertion loss Compensated

USB Type-C and Ethernet Interface

GUI and API Control

Outline Drawing



Connectors: SMA Female, USB Type-C

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8 - Channel Programmable Attenuator
50 - 8000 MHz, 90 dB, 0.25 dB Step

Electrical Specifications

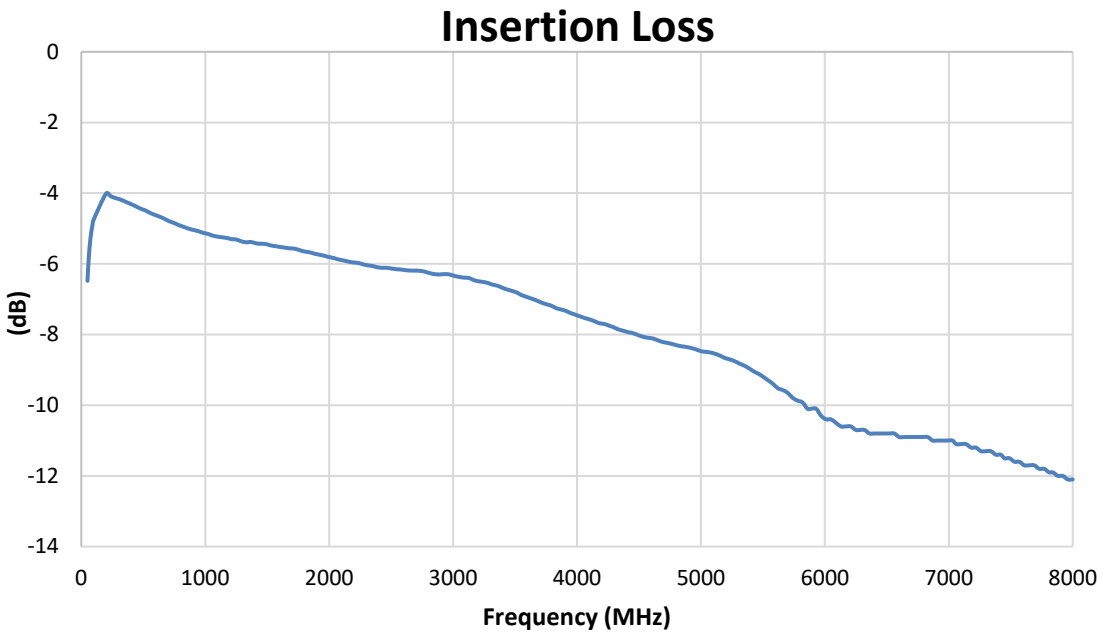
Parameter		Unit	Conditions	Min.	Typ.	Max.
Frequency		MHz		50		8000
Attenuation Range		dB				90
Step		dB			0.25	
Insertion Loss (I.L.)		dB	50 - 4000MHz @ 0 dB Att.		7.5	9
			4000 - 8000MHz @ 0 dB Att.		12.1	14
Attenuation Accuracy	**Compensate I.L. "OFF"[1]**	dB	0 - 30 dB Att.		±0.6	
			30 - 60 dB Att.		±1.2	
			60 - 90 dB Att.		±1.8	
	Compensate I.L. "ON"[2]		0 - 30 dB Att.		±0.5	
			30 - 60 dB Att.		±1	
			60 - 90 dB Att.		±1.5	
Adjacent-Channel Isolation[3]		dB	Adjacent Ch. @ 0 dB Att. Adjacent Ch. @ 90 dB Att.		90 110	
Switching time		µs	50% CTRL to 90% or 10% RF		1.1	
Input Operation Power		dBm				28
IP3 Input		dBm	0 dB Att.		50	
IP1dB		dBm	0 dB Att.		27	
VSWR		:1	Input @ 0 dB Att.		1.8	
			Output @ 0 dB Att.		1.8	
Interface			USB Type-C / Ethernet			
DC Power Supply			USB Type-C		5V	

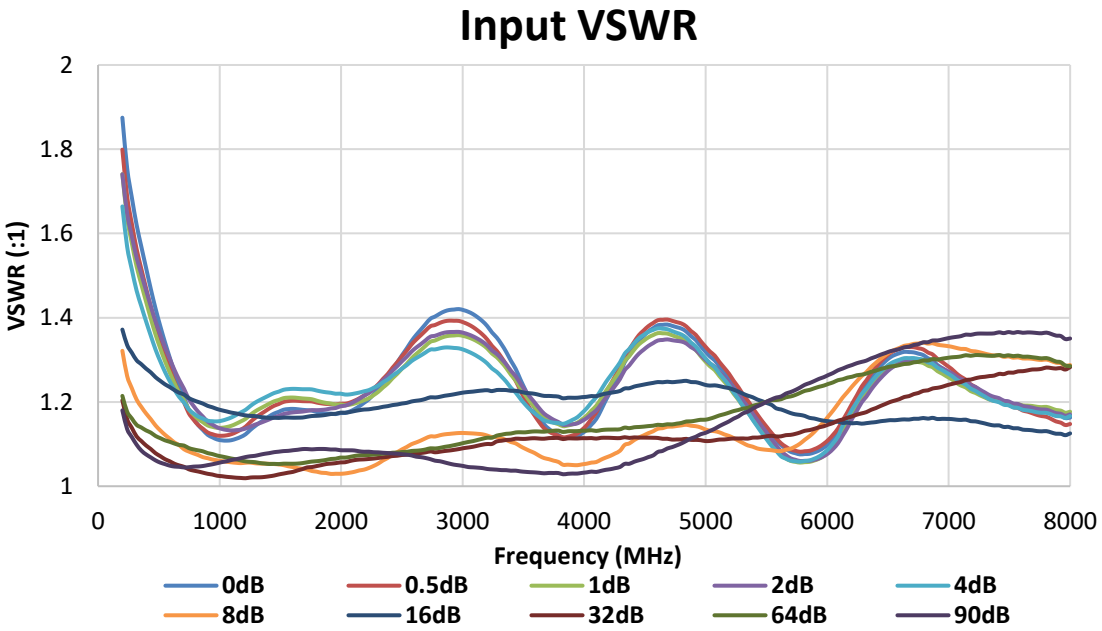
Operated in 50Ω system, 25°C

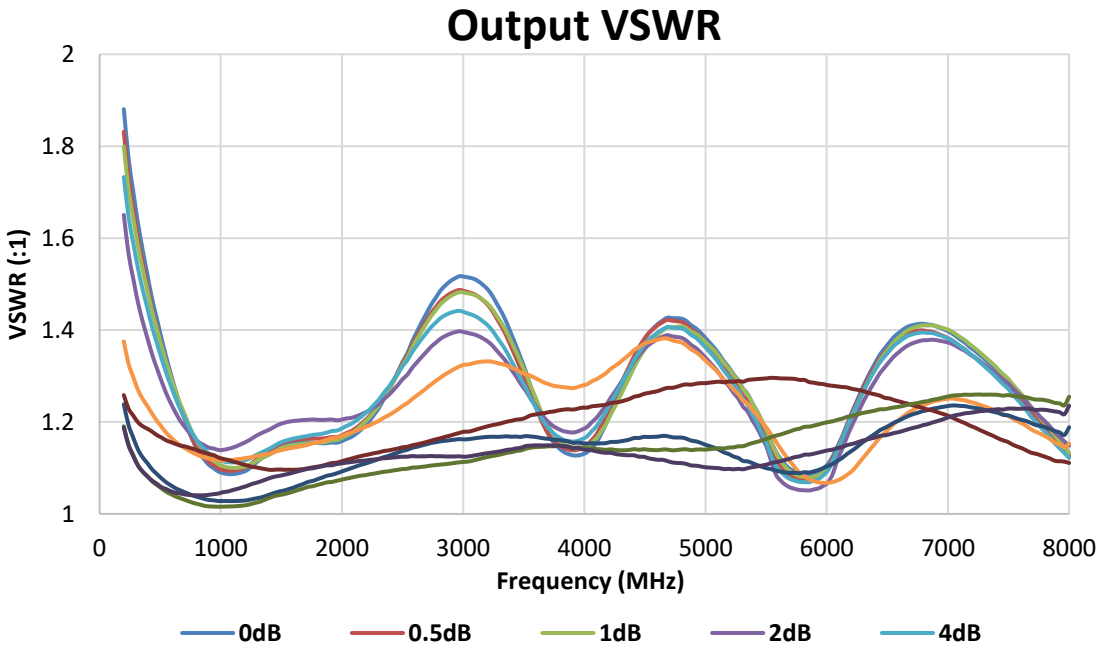
[1] Compensate Insertion Loss “OFF”: This attenuation is relative to insertion loss. S_{21} = attenuation setting + insertion loss.

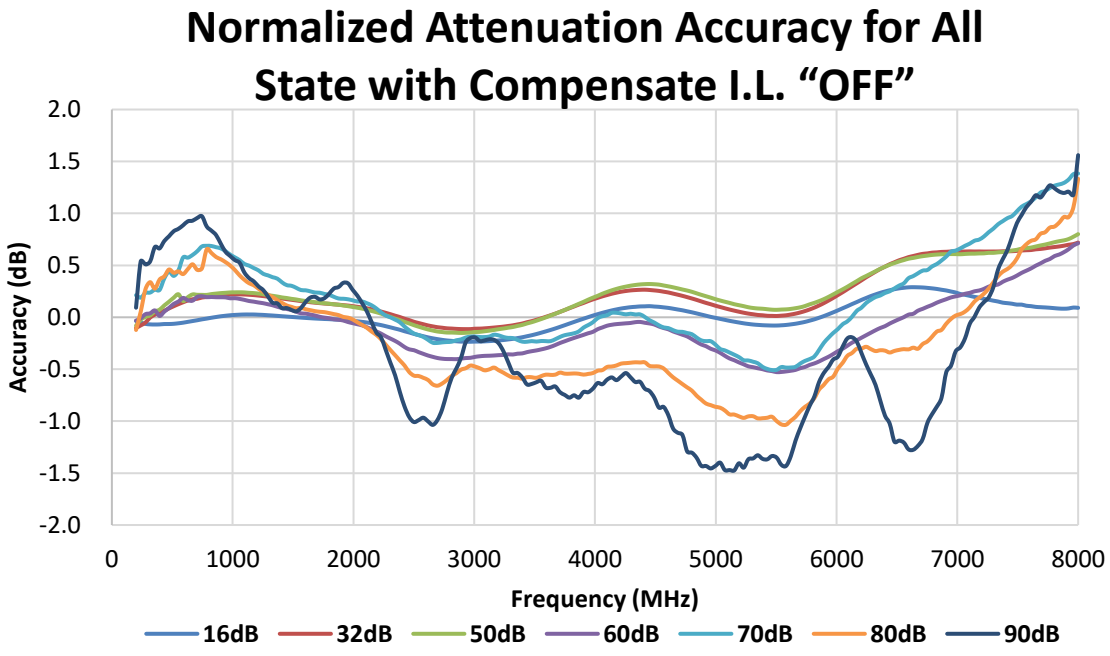
[2] Compensate Insertion Loss “ON”: The absolute attenuation including insertion loss. S_{21} = attenuation setting.

[3] Input port @ 0 dB Att. to adjacent-channel output port.

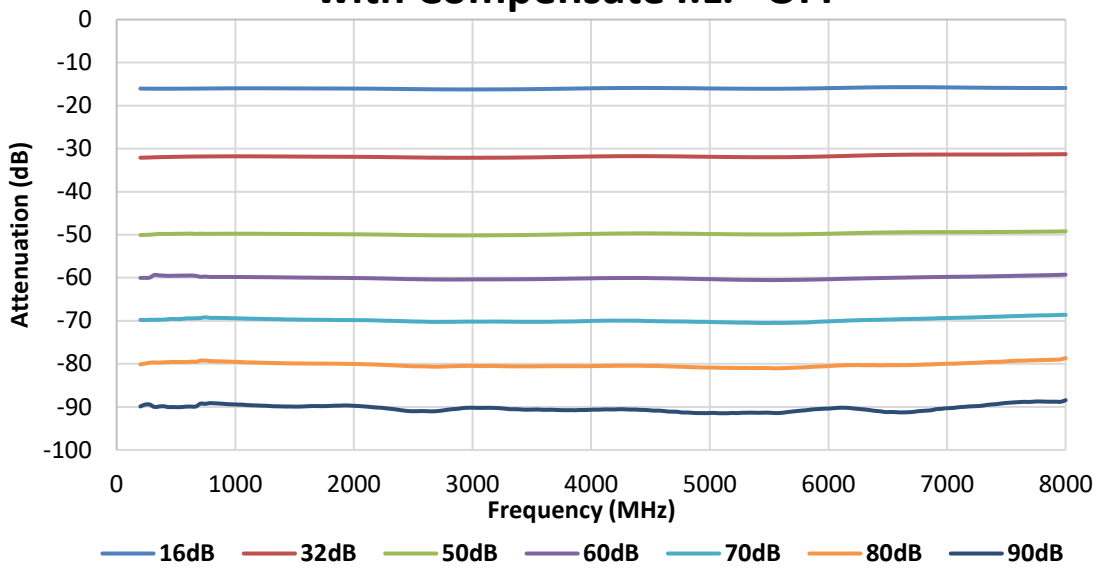

Insertion Loss
0
-2
-4
-6
-8
-10
-12
-14
(dB)
0
1000
2000
3000
4000
5000
6000
7000
8000
Frequency (MHz)


Input VSWR
2
1.8
1.6
1.4
1.2
1
VSWR (:1)
0
1000
2000
3000
4000
5000
6000
7000
8000
Frequency (MHz)
0dB
0.5dB
1dB
2dB
4dB
8dB
16dB
32dB
64dB
90dB

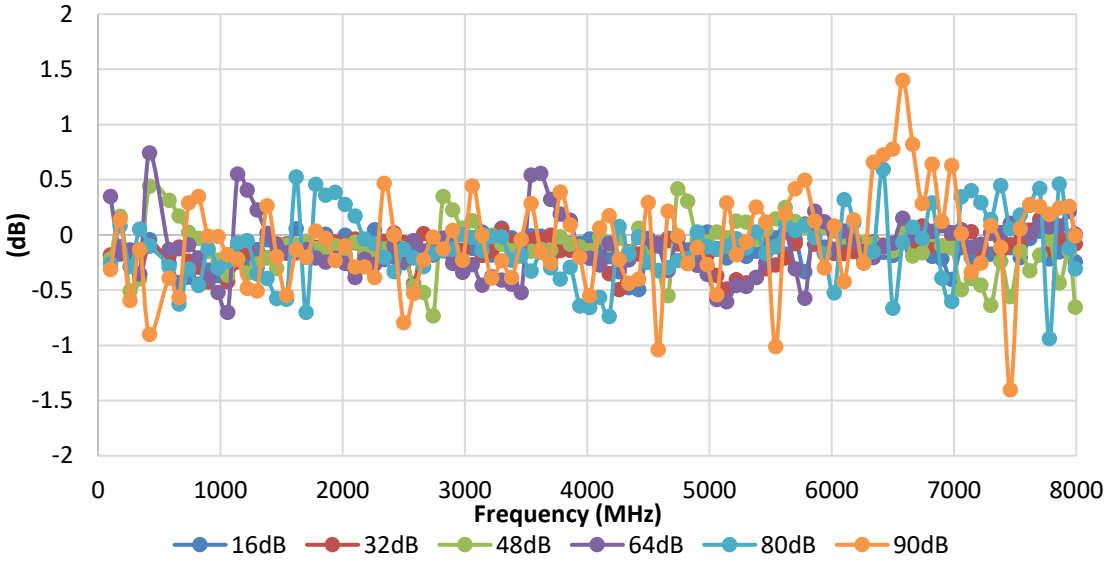

Output VSWR
VSWR (:1)
2
1.8
1.6
1.4
1.2
1
0
1000
2000
3000
4000
5000
6000
7000
8000
Frequency (MHz)
0dB
0.5dB
1dB
2dB
4dB

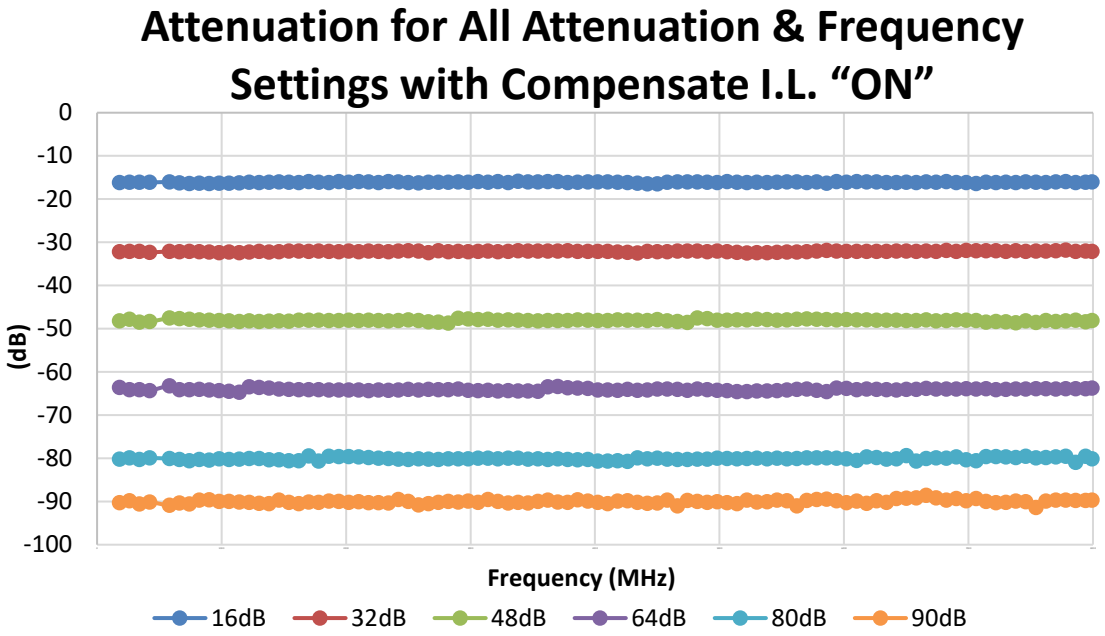

Normalized Attenuation Accuracy for All State with Compensate I.L. "OFF"
Accuracy (dB)
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
0
1000
2000
3000
4000
5000
6000
7000
8000
Frequency (MHz)
16dB
32dB
50dB
60dB
70dB
80dB
90dB

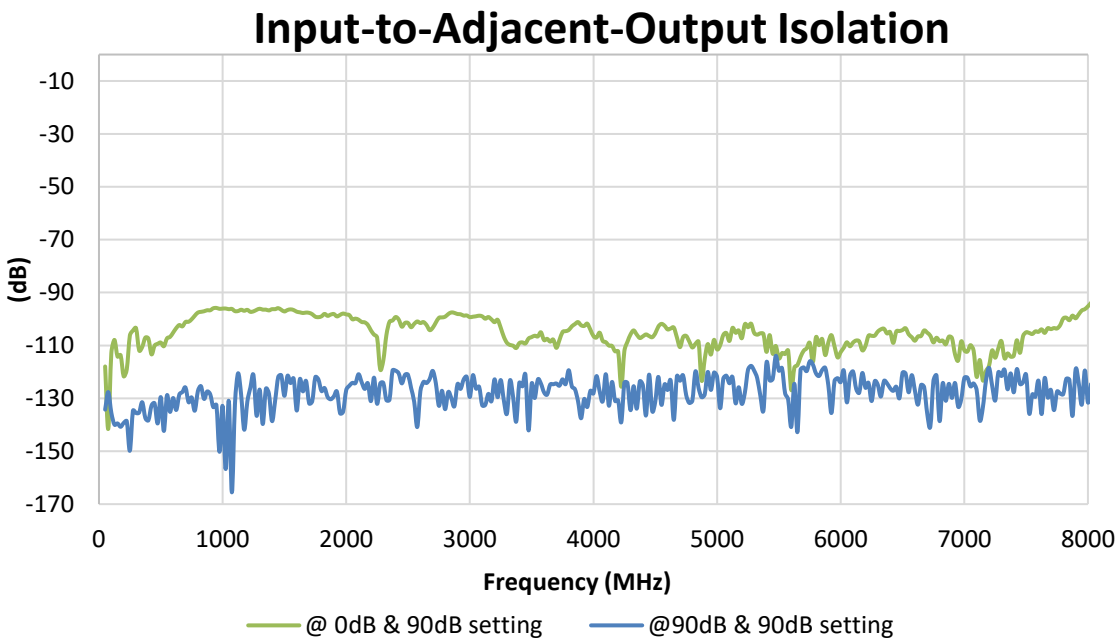
Normalized Attenuation for All State with Compensate I.L. “OFF”



Attenuation Accuracy for All Attenuation & Frequency Settings with Compensate I.L. “ON”

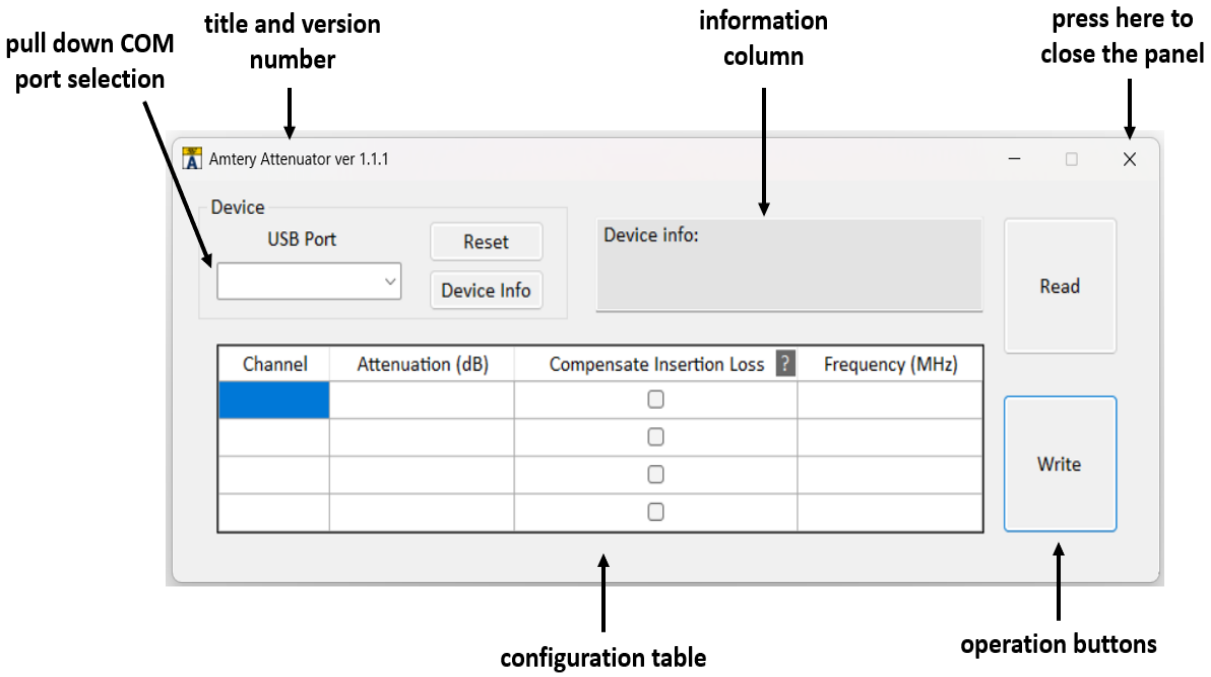



Attenuation for All Attenuation & Frequency Settings with Compensate I.L. "ON"
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
(dB)
Frequency (MHz)
16dB
32dB
48dB
64dB
80dB
90dB


Input-to-Adjacent-Output Isolation
-10
-30
-50
-70
-90
-110
-130
-150
-170
(dB)
0
1000
2000
3000
4000
5000
6000
7000
8000
Frequency (MHz)
@ 0dB & 90dB setting
@90dB & 90dB setting

Graphical User Interface

Attenuator Software Panel controls Amtery attenuators with USB interface without programming.



To enable the compensation function, select the "**Compensate Insertion Loss**" checkbox and enter the desired frequency. Note that compensation can only be applied to a single frequency point.
To disable the this function, clear the "**Compensate Insertion Loss**" checkbox; The "**Frequency (MHz)**" field will then be disabled.

Typical performance S-parameter file: https://www.amtery.com/en/goods-103
For each S/N S-parameter file, go to https://www.amtery.com/en/downloads
Note: Specifications are subject to change without notice.