

# Wall Module - AEW Series



Wall module

## ➤ Applications:

- Reduce moding problems
- Eliminate moding hot spots and resonances

## ➤ Key features:

- Excellent low frequency performances
- Portable (with casters)
- Fast and easy assembly

## ➤ Shape:

- Pyramidal

## ➤ Frequency band:

- From 250 MHz to 1 GHz

## ➤ Panel size:

### Standard:

- 2' x 8' (60.96 cm x 243.84 cm)
- 4' x 8' (121.92 cm x 243.84 cm)

## ➤ Height:

- Absorber: 12" to 36" (30.5 cm to 91.4 cm)

## ➤ Operating conditions:

- Temperature: 70° F +/- 10° (21° C +/- 3°)
- Relative humidity: 55 % RH +/- 15 %

## ➤ Indoor/outdoor:

- Indoor

## ➤ Treatment:

- Fire retardant

## ➤ Related certifications:

- MIL-STD 461/462
- NRL 8093 – 1, 2, 3

## ➤ Ordering code:

- AEW-XX-Y, where XX designates absorber height in inches and Y designates panel width in feet

## 1/ Description

The Wall Module is used in test facilities to absorb interfering signals on a selective basis to help reduce moding problems. The Wall Module also eliminates moding hot spots and resonances while providing good wide angle performance.

Wall Modules are shipped semi-assembled to protect the absorbers. Simple instructions and easy-to-use supplied hardware facilitate fast and easy assembly.

## 2/ Low frequency performances

The use of EM materials provides good low frequency performance to accommodate MIL-STD 461/462 applications. The Wall Module is constructed of absorber materials applied to 24 gauge sheet metal. This permits increased efficiency in absorbing characteristics and allows the user to shield the test environment from personnel or equipment behind the Wall Modules.

## 3/ Customization

The Wall Modules may also be ordered without the sheet metal backing for customers who prefer not to have any additional reflective surfaces inside the enclosure.

Special Wall Modules can be designed using any of the AEP or AEW products manufactured by AEMI.

A Baffle Wall reduces the strength (level) of multiple reflections and resonant conditions which are typical in shielded rooms at certain frequencies. Sound Baffles are a fundamental tool of mitigation, the practice of minimizing reverberation. In an anechoic chamber, Baffles are applied to walls and ceilings to reduce undesirable coupling in the measurement zone.



### MULTIMODING

**Various resonant modes are possible when radiated measurements are conducted within a shielded room, depending on room size, operating wavelength, and the geometric relationship of the antennas. Multimoding can also occur as a function of the cavity dimensions and equipment placement when the test facility room size is greater than the wavelength of the frequency of operation.**

## 4/ Specifications

		AEWM-12-2	AEWM-12-4	AEWM-18-2	AEWM-18-4	AEWM-24-2	AEWM-24-4	AEWM-36-2	AEWM-36-4
<b>Height</b>	<b>in</b>	12	12	18	18	24	24	36	36
<b>Absorber Panel Description</b>	<b>ft</b>	2 x 8	4 x 8	2 x 8	4 x 8	2 x 8	4 x 8	2 x 8	4 x 8
	<b>m</b>	.61 x 2.4	1.2 x 2.4						
<b>Absorption @ Normal Incidence</b>	<b>@ 250 MHz</b>	<b>dB</b>	19	19	21	21	26	26	30
	<b>@ 500 MHz</b>	<b>dB</b>	26	26	29	29	32	32	36
	<b>@ 1.0 GHz</b>	<b>dB</b>	32	32	35	35	38	38	41
<b>Power</b>	<b>Watt/in<sup>2</sup></b>	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	<b>Watt/m<sup>2</sup></b>	775	775	775	775	775	775	775	775
<b>Shipping Weight (approx.)</b>	<b>lbs</b>	128	250	160	310	180	350	270	530
	<b>kg</b>	58	113.4	72.6	140.6	81.6	158.8	122.5	240.4

AEWM 36-4 mechanical drawing

