COM-POWER CORPORATION

Preamplifier

PAM-840

Features

Broadband - 18 GHz - 40 GHz

High Gain - 25 dB typical

Gain Flatness - ± 2.5 dB.

Three Year Warranty

Description

The preamplifier model PAM-840 is a broadband, high gain, bench top microwave preamplifier specifically made for EMC emissions testing applications. It also can be used for other applications that require signal amplification within its operating range. It has an operating frequency range of 18 GHz to 40 GHz.

The PAM-840 has a gain variation of less than 2.5 dB for the entire frequency range with noise figure of less than 3.7 dB, which the PAM-840 a good bench top instrument for increasing measurement sensitivity of analyzers and receivers to low amplitude signals.

It has simple front panel consisting of two 50 Ω K type input and output connectors and power switch with indicator light. Power to the unit is supplied by an external wall mount adapter.

Each preamplifier is individually calibrated. The data and certificate of calibration is shipped with the unit.

The PAM-840 is an excellent addition to a measurement systemx that uses Com-Power AH-840 or AH-826 and AH-640 horns.

Application

Finding it difficult to measure low amplitude signals radiating from equipment under test (EUT) is a common problem faced by most EMC test engineers. This problem is more evident when testing products above 1 GHz. A high gain preamplifier amplifies the received signal before it reaches the receiver input so that it can seen above the noise floor. Otherwise, these signal will be completely missed during measurment.

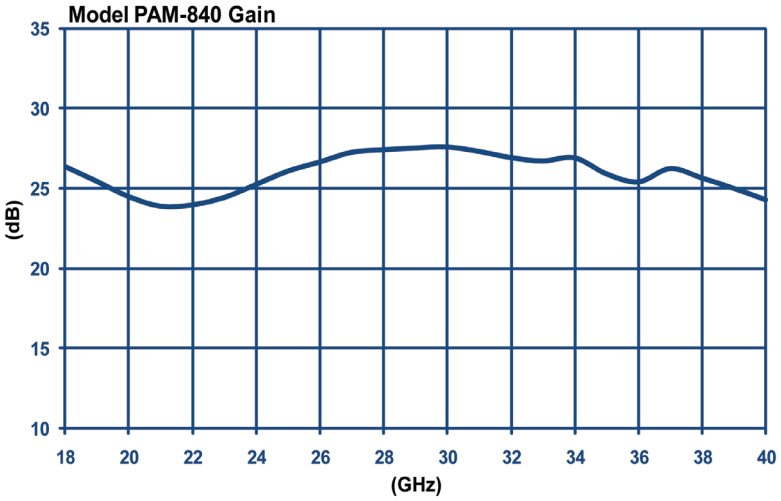
For example, Horn antennas are recommended for EMC measurements above 1 GHz. In a typical test seup the receiving horn antenna is placed at a distance about 1-3 meters from EUT and connected to the receiver via cable of suffient length. This arrangement reduces the signal level at the receiver input due high antenna factors and cable loss. A standard horn antenna operating above 18 GHz can an have antenna factors as has high as 40 dB/m in addtion to cable losses that can be signinficant.

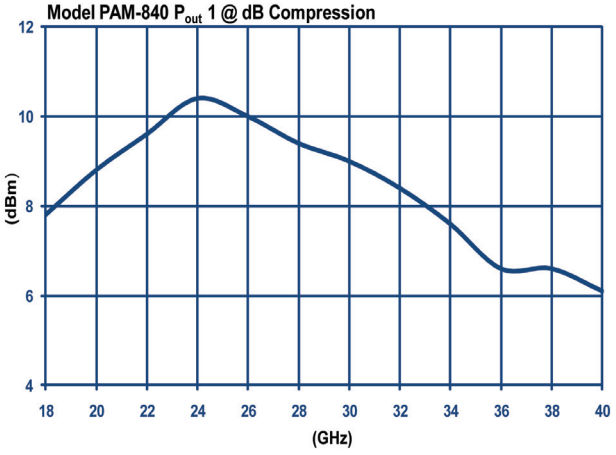
Some requirements specify extremely low emissions limits, making measurement sensitivity even more critical. Without a preamplifier, the noise floor of the receiver may exceed the test limits.

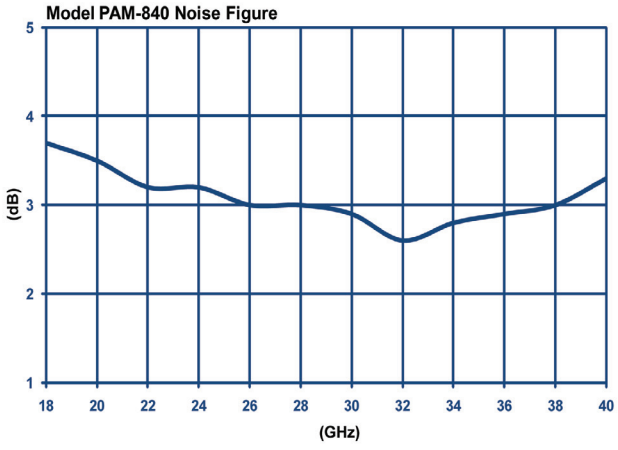
Specifications

Frequency:	18 GHz - 40 GHz
Typical Gain:	25 dB
Flatness:	± 2.5 dB
Noise Figure:	< 4 dB
VSWR (Input / Output):	2.5: 1 / 2.5: 1
P_{out}@1dB Comp:	+6 dBm, min.
Input power handling:	+10 dBm, CW
Operating Power:	6 VDC, 500 mA
Impedance:	50 Ω
Connector type:	K type*
Size:	7.5" x 5" x 3" (9 x13 x 7.6 cm)
Weight:	2.5 lbs. (1.1 kg)

* SMA, 2.9 mm, 3.5 mm & K connectors will mate mechanically& electrically to each other. The K connector is a ® trademark of the Anritsu Company.







All specifications are subject to change without notice.
All values are typical, unless specified.