

## EM-6992B | Magnetic and Electric Field Probe Kit with Preamplifier



### Description

The EM-6992B Kit includes five probes (three (3) Magnetic Field probes and two (2) Electric Field Probes) as well as a 20cm extension handle for accessing hard-to-reach places. The probes are designed for the detection of E-Field and H-Field emissions and are suited for EMC/Pre-Compliance testing as well as performing basic electric and magnetic field sweeps.

The EM-6992B kit also includes the EM-6990B Broadband Preamplifier. The EM-6990B can improve measurement quality by increasing the sensitivity of the EMI analyzers, spectrum analyzers, oscilloscopes and many other devices without distortion of amplitude accuracy.

### Specifications

#### Kit Contents

- EM-6993:** 6cm Loop H-Field Probe
- EM-6994:** 3cm Loop H-Field Probe
- EM-6995:** 1cm Loop H-Field Probe
- EM-6996:** 3.6cm Ball E-Field Probe
- EM-6997:** Stub E-Field Probe
- EM-6990B:** Broadband Preamplifier

#### Electrical

**Probe Frequency Range:** DC to >1GHz

**Preamp Frequency Range:** 10kHz – 2GHz

**Preamp Gain:** 31dB Typical above 1MHz

29 dB @ 100kHz

18 dB @ 10kHz

**Impedance:** 50Ω, Nominal

**Connector:** BNC (F) (**EM-6992B**)

**Power Source:** 15V 1A DC Power Supply (Included)

#### Mechanical

##### Kit Dimensions:

Length: 33 cm (13")

Width: 27.9 cm (11")

Height: (5.5")

**Weight:** 2.22kg (4.9 lbs.)

##### Optional Accessories:

- 15V, 1A DC Power Supply (Included)
- BNC (m) to BNC (m) coaxial cable, 3ft.

Specifications subject to change without notice, unless otherwise specified. Product is manufactured in Johnstown, NY, U.S.A.



## EM-6992B | Magnetic and Electric Field Probe Kit with Preamplifier

### Probe Characteristics

#### **EM-6993 6 cm loop**

H-Field Probe

E-Field rejection: 41 dB

Resonant Frequency: 540 MHz



#### **EM-6994 3 cm loop**

H-Field Probe

E-Field rejection: 29 dB

Resonant Frequency: 950 MHz



#### **EM-6995 1 cm loop**

H-Field Probe

E-Field rejection: 11 dB

Resonant Frequency: 2500 MHz



#### **EM-6996 3.6-cm ball**

E-Field Probe

H-Field rejection: 30 dB

Resonant Frequency: > 1000 MHz



#### **EM-6997 6-mm stub tip**

E-Field Probe

H-Field rejection: 30 dB

Resonant Frequency > 1500 MHz



\*Data shown is typical, not guaranteed.

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## EM-6992B | Magnetic and Electric Field Probe Kit with Preamplifier



### Description

The EM-6990B Broadband Preamplifier is used primarily with the EM-6992 Near Field Probe Set in performing EMI diagnostic testing. The EM-6990B provides a significant improvement in overall measurement sensitivity of the typical spectrum analyzer. Powered by an external +15V DC input, the EM-6990B features an integrated voltage regulation and filtering circuitry, ensuring reliable operation for both bench and field-testing scenarios.

### Applications

The EM-6990B is a quality preamplifier with high performance, suitable for several applications. It improves the sensitivity of the EMI analyzers, spectrum analyzers, oscilloscopes and many other devices without distortion of amplitude accuracy.

### Specifications

#### Electrical

**Frequency Range:** 10 kHz – 2 GHz

**VSWR:** 1.5:1 Average Input

1.7:1 Average Output

**Gain:** 31dB Typical above 1MHz

29 dB @ 100kHz

18 dB @ 10kHz

**1dB Compression:** -25dBm Nominal

**Noise Figure:** 4.75 dB Average above 10MHz

**Gain Flatness:** +/- 1 dB Typical

**Impedance:** 50Ω, Nominal

**Connector:** BNC (F) (EM-6990B | 10kHz – 2GHz)

**Power Source:** 15V 1A DC Power Supply (Included)

#### Mechanical

##### Dimensions:

Length: 76.00 mm (3.00 in.)

Width: 39.37 mm (1.55 in.)

Height: 46.50 mm (1.83 in.)

Weight: 400g (0.4 lbs.)

##### Color Options:

- Black

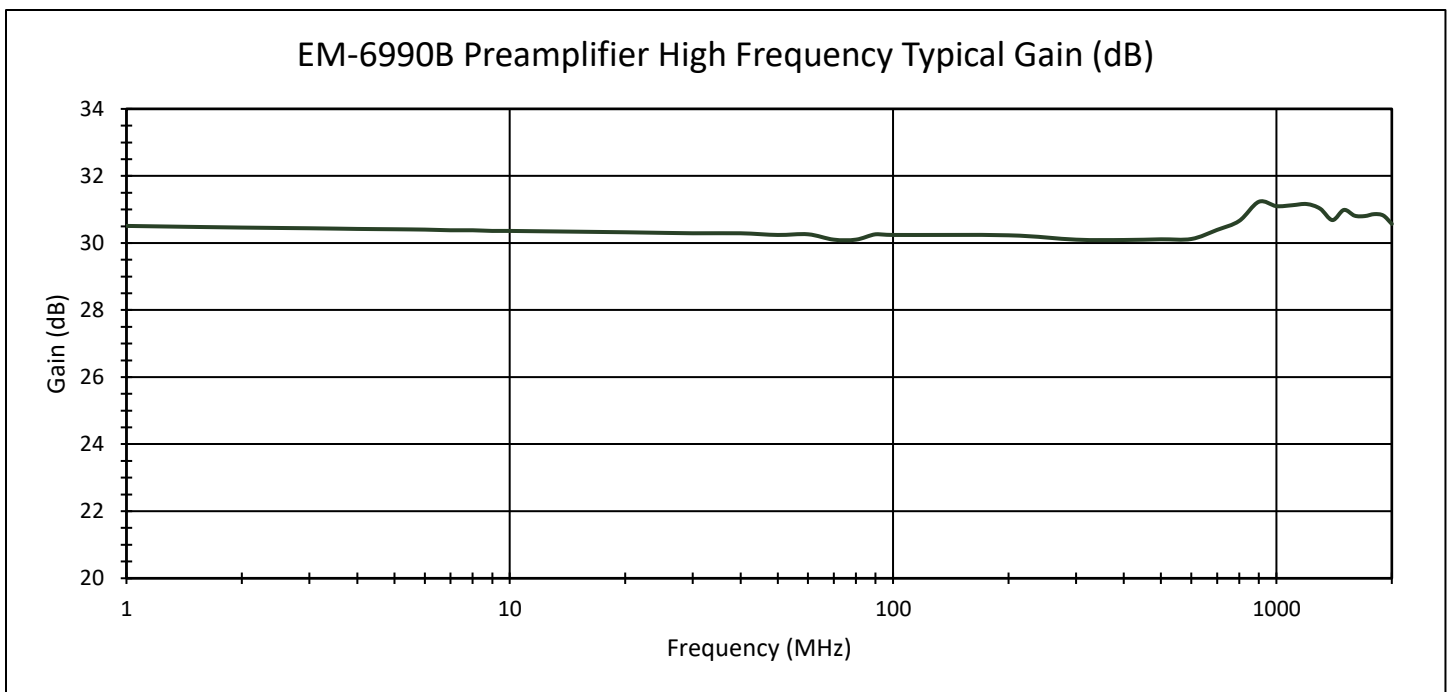
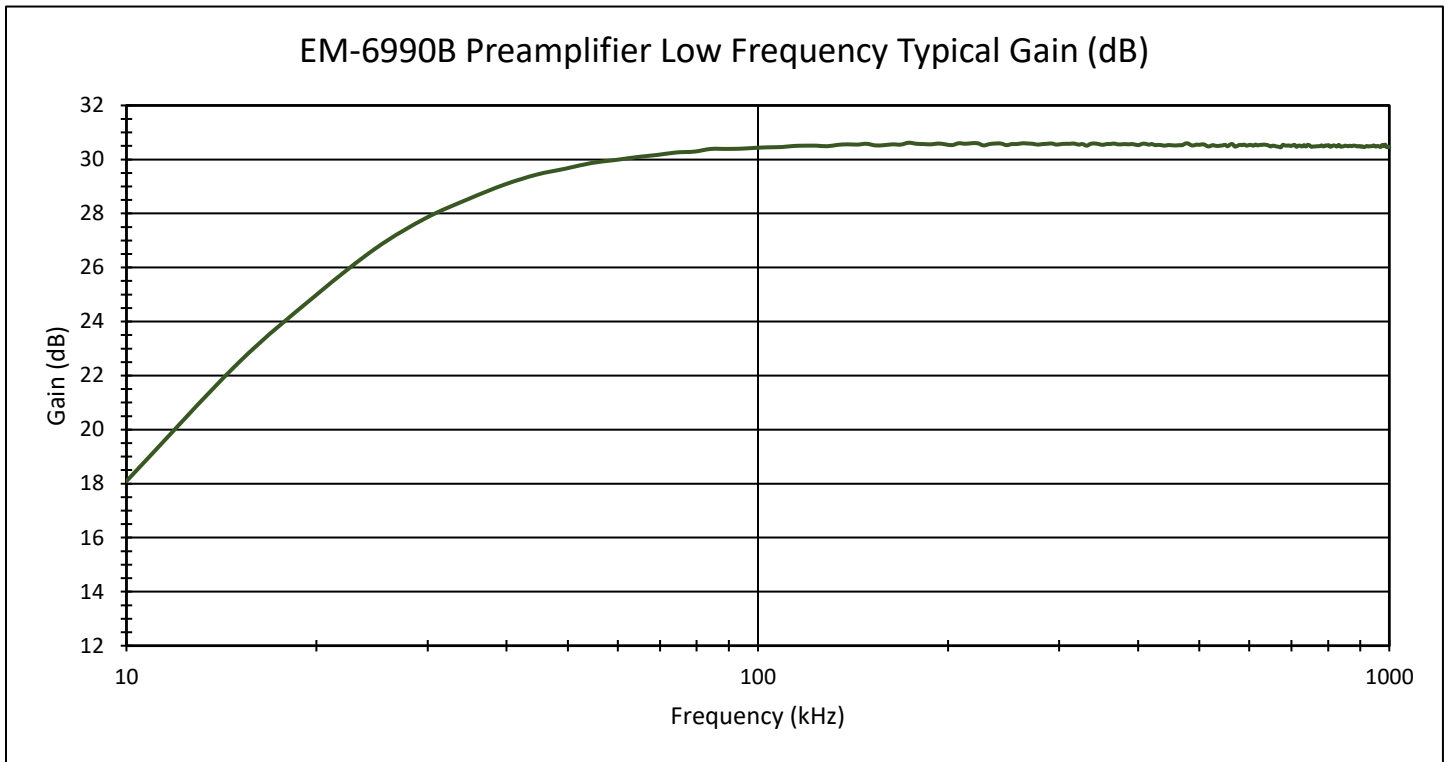
##### Optional Accessories:

- 15V, 1A DC Power Supply (Included)
- BNC (m) to BNC (m) coaxial cable, 3ft.

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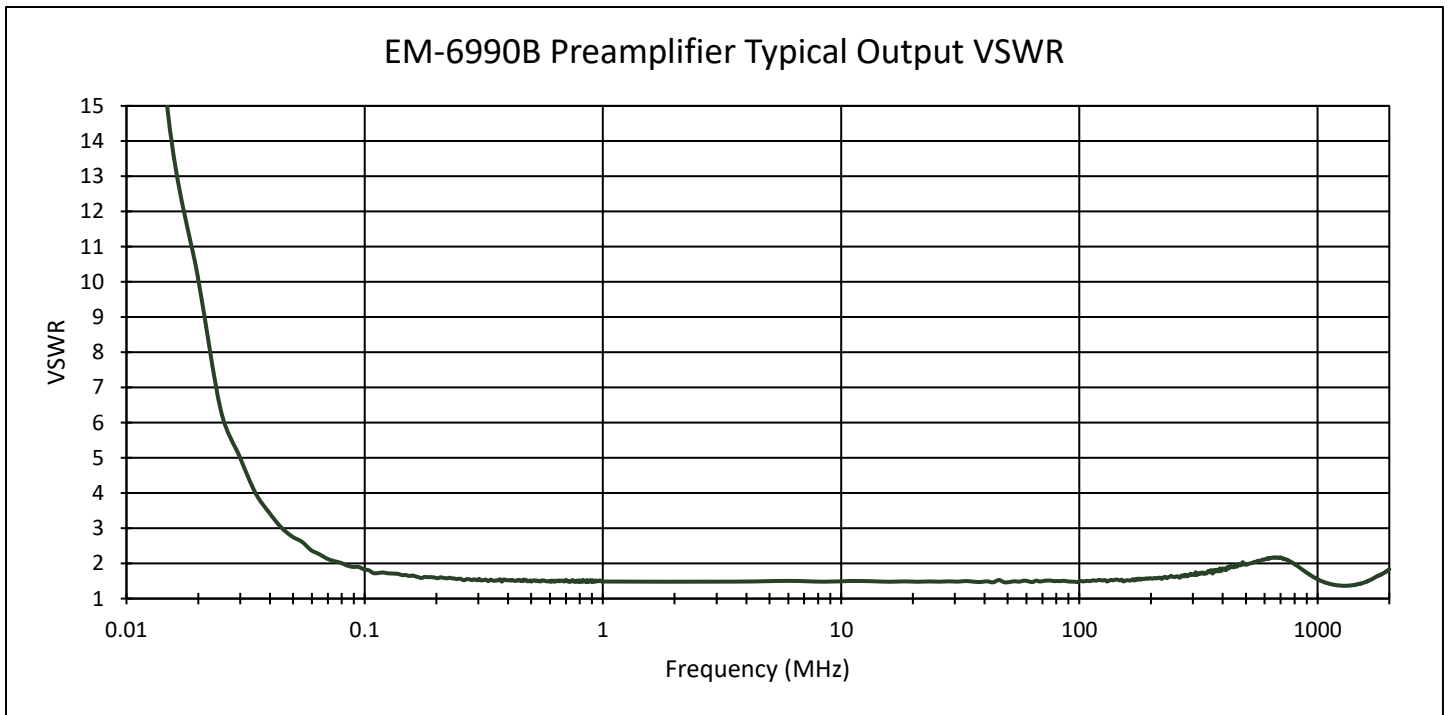
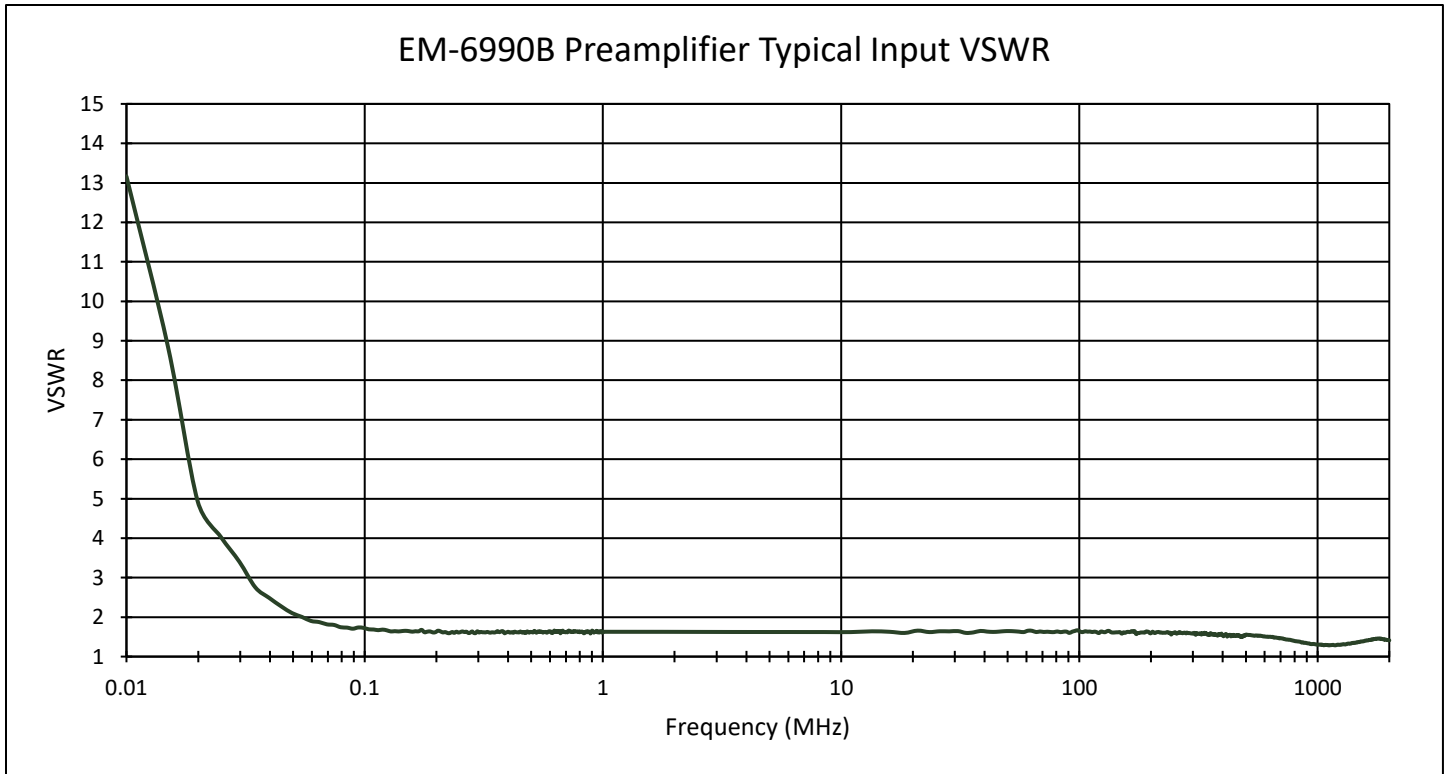


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