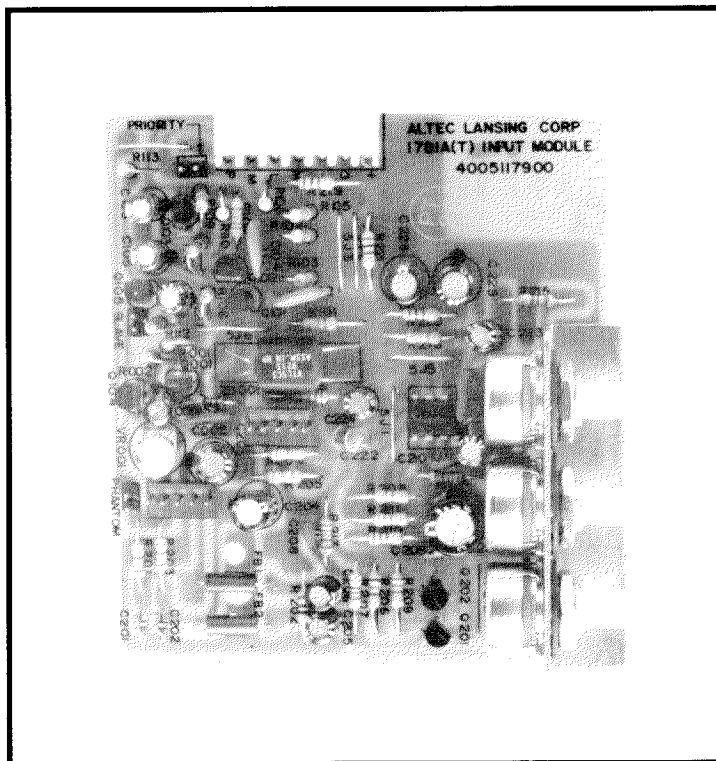




# 1781A/AT Mic/Line Input Module



## DESCRIPTION

The ALTEC LANSING **1781A** programmable input module accepts either mic or line level signals through a wide variety of connector interfaces. Standard features include an electronically balanced input stage with adjustable gain, continuously variable high and low pass filters, RFI protection, 48 volt phantom powering, two levels of muting, and remote control capability. Programming is accomplished with plug-in jumpers which may select phantom power (on or off) and mute priority or slave. Optionally available is the ALTEC LANSING **1785A** input isolation transformer which provides an additional 10 dB of gain for improved sensitivity. ALTEC LANSING also offers the **1781AT**, a programmable input module with a **1785A** transformer installed.

The **1781A/AT** is designed for use with the Altec Lansing **1700C** Mixer/Preamplifier, and **1707C/1715C** Mixer/Amplifiers. Four different input connectors are available: the **1791** Female XLR, **1792** Male XLR, **1793** Dual Phono, and **1794** 5-Lug Terminal Connector.

## KEY SPECIFICATIONS

**Gain:** 0 dB to 50 dB,  
continuously variable.  
10 dB to 60 dB w/**1785A**.

**Input Sensitivity:**  
(Ref. 1 kHz, 0 dBr = 100 mVrms output, 10 kohm load)  
Without **1785A**: 0.3 mVrms to 100 mVrms  
(-50 dBr to 0 dBr).  
With **1785A**: 0.1 mVrms to 30 mVrms  
(-60 dBr or -10 dBr).

**Input Impedance:** (Ref. 1 kHz)  
Electronically balanced: 8 kohm.  
Transformer balanced: 600 ohm.  
With **1793** installed: 39 kohm.

**Frequency Response:**  
(Ref. 1 kHz, 100 mVrms output, 10 kohm load)  
Without **1785A**:  
±1 dB (Minimum gain): 20 Hz to 20 kHz.  
±1 dB (Maximum gain): 50 Hz to 20 kHz.  
With **1785A**:  
±1 dB (Minimum gain): 20 Hz to 20 kHz.  
±1 dB (Maximum gain): 50 Hz to 15 kHz.

**Total Harmonic Distortion (THD):**  
(Ref. 1 kHz, 100 mVrms output, minimum gain, 10 kohm load, 30 kHz low pass filter)  
20 Hz to 20 kHz: <0.05%.

**Equivalent Input Noise:** <-120 dBr.  
(Ref. 0 dBr = 100 mVrms output, 10 kohm load, 200 ohm input termination maximum gain, A-weighted)

**High Pass Filter (Low Cut):**  
(Ref., 100 mVrms output, minimum gain, 10 kohm load)  
Fl: 320 Hz (>10 dB at 100 Hz).  
Slope: 6 db/oct (20 db/dec).

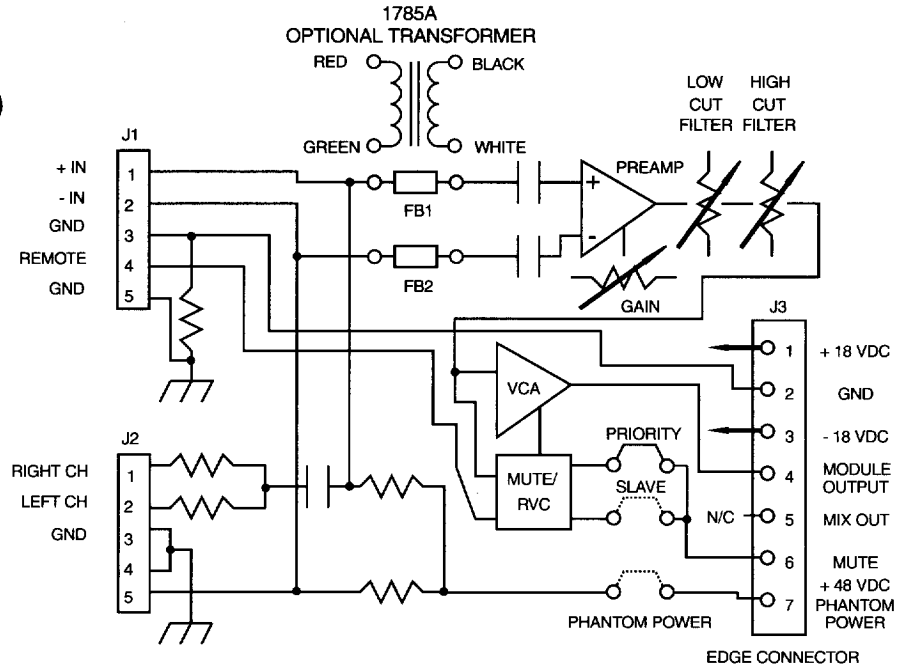
**Low Pass Filter (High Cut):**  
(Ref. 100 mVrms output, minimum gain, 10 kohm load)  
Fh: 5 kHz (>6 dB at 10 kHz).  
Slope: 6 dB/oct (20 dB/dec).

**Attenuation:**  
(Ref. 1 kHz, 100 mVrms output, 10 kohm load)  
Mute: >60 dB.  
10 kohm remote

# 1785A SPECIFICATIONS

# BLOCK DIAGRAM

- Voltage Gain:** 10 dB.
- Impedance Ratio:** 600 ohm : 10 kohm.  
(Primary: Secondary)
- Frequency Response:**  
(Ref. 1 kHz, 100 mVrms output)  
±1 dB: 50 Hz to 15 kHz.
- Total Harmonic Distortion (THD):**  
(Ref. 1 kHz, 100 mVrms output)  
50 Hz to 20 kHz: <0.2%.
- Insertion Loss:** <1 dB.  
(Ref. 1 kHz, 100 mVrms output)
- Included Accessories:**  
2 - Mounting screws.  
1 - Flat washer.



## ARCHITECT'S and ENGINEER'S SPECIFICATIONS

The input preamplifier modules shall have phantom power capability, continuously variable high and low pass filters, adjustable gain, and L + R stereo summing. A second model shall also feature a 600 ohm input transformer. In addition, the modules shall be fully compatible with the 1700-series mixer/preamplifier and mixer/amplifier mainframes, and accept any one of the 1790-series input connectors.

The input preamplifier modules shall meet the following performance criteria: Gain: 50 dB (60 dB w/1785A Input Transformer), continuously variable.

Frequency Response: 50 Hz to 20 kHz, ±1 dB.  
Equivalent Input Noise: <120 dB below rated output voltage with a 200 ohm input termination. Total Harmonic Distortion (THD): <0.05%, 20 Hz to 20 kHz (1781A) or <0.2%, 50 Hz to 15 kHz (1781AT) at minimum gain. High Pass Filter Corner Frequency: 320 Hz. Low Pass Filter Corner Frequency: 5 kHz. High and Low Pass Filter Slope: 6 dB per octave.

The input preamplifier shall be the Altec Lansing model 1781A or 1781AT.



a MARK IV company

P.O. BOX 26105 ● OKLAHOMA CITY, OK 73126-0105 ● U.S.A. ● (405) 324-5311 or FAX: (405) 324-8981  
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