

## XR-5383 BBE<sup>®</sup> Sound Enhancement Processor

### Preliminary Information

#### GENERAL DESCRIPTION

The XR-5383 is a single channel sound enhancement processor using the patented BBE technique to provide more lifelike audio to reproduced sound regardless of its source. No initial encoding of the source signal is needed to achieve the sound enhancement. The XR-5383 provides this enhancement without additional speakers and is compatible with headphone transducers for use with walkabout or portable stereo systems.

With the use of the definition control the amount of enhancement can be controlled to the listeners liking. Each channel has its own control allowing for greater adjustment of the effect in case of non-matched speakers.

The XR-5383CP is available in a 22 pin plastic DIP, 0.3 inches wide.

The XR-5383 is fabricated using bipolar technology to provide extremely low noise, low total harmonic distortion and low current consumption (4 mA typical) for battery operated applications.

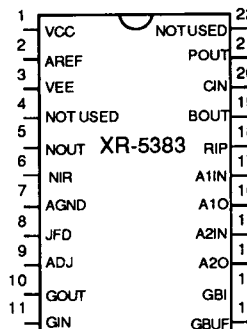
#### FEATURES

- Recreate Concert Sound without Initial Encoding
- Single Control for Ease of Adjustment
- Extremely Low Noise: -85 dBV typically using IEC Weighting
- More Flexibility with the Single Channel Transducer Independent: Functions with headphones or large speakers
- No extra speakers needed to achieve the effect.

#### APPLICATIONS

- Walkabout Stereo or Monaural Systems
- Portable Sound Systems
- Sound Enhancement for Home Stereo (Hi-Fi) Systems
- Television Sound Systems (Stereo Ready)

#### PIN ASSIGNMENT



#### ORDERING INFORMATION

| Part Number | Package            | Operating Temperature |
|-------------|--------------------|-----------------------|
| XR-5383CP   | 22 Pin Plastic DIP | 0°C to 70°C           |

#### ABSOLUTE MAXIMUM RATINGS

|                                        |                      |                 |
|----------------------------------------|----------------------|-----------------|
| Power Supply                           | VCC                  | 36V             |
| Power Dissipation (Package Limitation) |                      |                 |
| Plastic DIP                            |                      | 1Watt           |
| Derate above 25°C                      |                      | 6 mW/°C         |
| Storage Temperature Range              |                      | -65°C to +150°C |
| Voltage Applied to any Input           | VEE- 0.3 to VCC +0.3 |                 |

#### SYSTEM DESCRIPTION

The XR-5383 is designed for use with both monaural and stereo sound systems to enhance the music to provide more realism to the sound. The XR-5383 would normally be located in the preamplifier section of a sound system after the tuner or input selection and before the amplifier stages to drive the transducers (speakers or headphones). The definition control is adjusted until satisfactory to the listener. Any low noise switch can be used to provide a bypass of the BBE sound processor.