Introduction

The Universal Buffer is a rack mountable modular card frame system designed to solve all problems associated with level matching, impedance conversion and balanced-to-unbalanced interfacing.

A wide range of modules allow the connection of semi-pro or consumer audio equipment to broadcast installations, telephone line interfaces, amplification and audio/video distribution systems.

Some modules conform to the original philosophy, such as the dual output or dual input modules. These, with the Line, Mic and Phono modules make up the signal distribution category.

The second category consists of special function modules, often the result of an identified need or customer's demand: it includes oscillators, limiters, VCA's, equalisers and crossovers. All UB modules are equipped with rear panel interconnect (patch points) via phono plugs/RCA.

This feature, combined with numerous mounting possibilities, make the Universal Buffer System extremely versatile and particularly useful in recording and broadcast studios, PA installations, video post-production and duplication facilities.

Complete Universal Buffer System Guide available including example applications.
The Card Frames

Three card frames are available, the UBF2, UBF4 and UBF8, accommodating 2, 4 and 8 modules respectively. All three frames are internally powered. The UBF4 and UBF8 frames are fitted with 19” rack mounting ears. The UBF2 may be ordered with a UBRM2 rack mounting kit, and the UBF8 may be specified with the UBRML recessed rack mount option to accommodate cables from the rear of the rack.

Signal Distribution Modules

Each module is split into two sections, A and B. Section A is the input section providing level and impedance matching, and, when required, equalisation, between the incoming signal and phono (RCA) patch point connectors located at the rear of the unit.

Section B is the output section and provides buffering between the patch point signal and the front panel output connector.

All UB transformer outputs feature a unique distortion cancellation system which reduces to negligible levels the distortion inherent in conventional transformer output stages.

LINE LEVEL, MICROPHONE and PHONO MODULES :

MODULE UB282 : MICROPHONE PREAMPLIFIER
UB282 features a transformer balanced, low-noise input stage with front panel sensitivity calibration.

The output section is transformer balanced with front panel calibration.

MODULE UB283 : PHONO PREAMPLIFIER
UB283 features a low-noise input stage with RIAA EQ and front panel calibration.

The output section is transformer balanced with front panel level calibration.

MODULE UB285 and UB285T : LINE AMPLIFIERS
UB285 has a transformer balanced input and output.

UB285T has a transformer balanced input and output.

OUTPUT MODULES : both sections are output buffers.

MODULE UB289 and UB293 : DUAL OUTPUT MODULES
UB289 includes a 2 input mixing summing stage and two transformer balanced output stages.

UB293 includes two independently buffered transformer balanced output stages.

INPUT MODULES : both sections are level converters

MODULE UB295 and UB295T : DUAL INPUT MODULES
UB295 is a dual input module with differential input at +4 dBu and unbalanced outputs at -10 dBV with level trims.

UB295T is a dual input module with transformer balanced input at +4 dBu and unbalanced outputs at -10 dBV with level trims.

Special Function Modules

MODULE UB286 : OSCILLATOR
UB286 delivers low distortion sine-waves at 1 kHz and 10 kHz (other frequencies optional). Output is either unbalanced for semi-pro equipment or transformer balanced for broadcast and studio applications.

MODULE UB287 and UB294 : VCA/AGC
UB287 has a low distortion VCA and level detector for applications including remote control of audio signals, speaker protection and automatic volume control. The module can be switched to VCA or AGC amplifier modes.

The UB294 has two low-distortion VCA’s and control circuitry for remote control of audio signals.

MODULE UB290 and UB291 : EQUALIZER
UB290 is a voltage-controlled shelving equalizer offering up to 18 dB cut or boost at 60 Hz and 15 dB cut or boost at 12 kHz.

UB291 is a voltage-controlled sweepable equalizer offering up to 20 dB cut or boost at a centre frequency adjustable between 200 Hz and 6 kHz.

MODULE UB292 : STEREO HEADPHONE AMPLIFIER
UB292 stereo headphone amplifier is capable of driving head phones of impedance range 8 to 600 Ohms.

MODEL UB301
UB301 comprises a level detector, a VCA and a relay. It can be used for voice-over or priority functions and automatic source replacement.

DISPLAY MODULES :

MODEL UB300, UB300P : DISPLAY MODULES
The module UB300 is a dual bargraph with selectable Peak or VU ballistics.

The module 300P is a single bargraph and a patchable volume control.