

**kasper**

# KSP-S48.2

## Digital Signal Processor

The Kasper KSP-S48.2 Digital Signal Processor is a powerful and precision-engineered audio processing solution designed for advanced sound system control and optimization. Equipped with high-performance dual DSP architecture, it delivers exceptional processing speed, accuracy, and flexibility, enabling detailed tuning and customization for professional audio environments.



### KEY FEATURES:

- ✓ Advanced digital signal processing
- ✓ High dynamic range & low noise
- ✓ Precise audio control and tuning
- ✓ Multi-input and multi-output configuration
- ✓ Wide frequency response

### IDEAL FOR:

-  Auditoriums
-  Live sound & events
-  Houses of worship
-  Recording studios
-  Commercial installations



SIGNAL PROCESSING



BIT DEPTH - 32/192 KHZ



INPUT 3-4



OUTPUT 6-8



DSP FIR FILTERS



DSP DUAL CHIP

|                                                |                                                                 |
|------------------------------------------------|-----------------------------------------------------------------|
| Size:                                          | 1U                                                              |
| Input :                                        | 4                                                               |
| Total harmonic distortion (20Hz-20kHz@+4dBu) : | <0.003%                                                         |
| Frequency response (20Hz-20kHz@+4dBu) :        | Q+0/-0.3dB                                                      |
| Signal-to-noise ratio :                        | 118dB A-weighted                                                |
| Noise floor :                                  | <-90dBu                                                         |
| Dynamic range (20Hz-20kHz, 0dB) :              | >116 dB                                                         |
| Maximum gain (input to output) :               | 48dB                                                            |
| Maximum delay (input to output) :              | 1360ms                                                          |
| Channel separation (between channels@1kHz) :   | >80dB                                                           |
| Common mode rejection ratio :                  | 60Hz>100dB@+20dBu                                               |
| Input impedance (balanced/unbalanced) :        | Bal: 20K / Unbal: 10K                                           |
| Output :                                       | 8                                                               |
| Output impedance (balanced/un balanced) :      | Bal: 100ohm / Unbal: 50ohm                                      |
| Input gain range (adjustable) :                | -80dB+12dB                                                      |
| Output gain range (adjustable) :               | -80dB~+12dB                                                     |
| A/D chip :                                     | AK5552                                                          |
| A/D sampling rate :                            | 768kHz                                                          |
| A/D converter bit width :                      | 32bit                                                           |
| D/A chip :                                     | CS4396                                                          |
| D/A sampling rate :                            | 192kHz                                                          |
| D/A converter bit width :                      | 24bit                                                           |
| DSP chip :                                     | ADSP-21571 *Dual                                                |
| DSP main frequency :                           | 500Mhz                                                          |
| DSP bit width :                                | 32/40/64-bit floating point dual-core SHARC+ARMCortex-A5TM core |
| Power consumption :                            | 220V 22 watts                                                   |
| Dimension ( WxHxD ) :                          | ( 482mm/ 18.97" x 45mm/ 1.77" x 205mm/ 8.07" )                  |