### VSP-X1000 Series

#### 3G-SDI Video/Audio Signal Processing Boards

VSP-X1000 series are the next-generation application boards for digital TV in NEC integrated signal processing platform. One of the family members of VSP-X1000, ‘ACO4’ supports 4 SDI automatic changeover. ‘XC’ enables cross converting of 3G/HD/SD-SDI. ‘EAP’ carries 16ch audio processing function. VSP-X1000 series cover wide-range functions and flexibly meet customers’ manifold requirements.

#### Features

- **3G-SDI interface**
  - Cutting-edge devices are used for supporting 3G-SDI and 16ch embedded audio.

- **Highly flexible video input/output terminals**
  - 4 SDI inputs and 2 independent outputs are provided compliant with 3G-SDI. For example, the outputs 1 and 2 can be assigned for different formats such as HD and SD or used as PGM and PVW channels.

- **A wide range of control interface**
  - By selecting the board on the rear connector side as necessary, various control interface types such as Ethernet, RS-485 and contact control are available.

- **Alarm monitoring function**
  - Alarm monitoring by SNMP is available with CPU board. Only one CPU board is required with each frame.
  - Alarm monitoring by GPI is available with each board without CPU board.

- **Emergency bypass function**
  - In case of power shutdown, or manual operation, signals can through relay-bypass between SD1 Input 1 and Output 1.

- **Compact and Space-efficient**
  - The VSP–X1000 is designed to be mounted in MF-730/712 integrated signal processing platform.
VSP-X1000 Series lineup

3G-Compliant Cross Converter board [ VSP-X1000 XC ]
- Cross convert incorporating frame synchronizer. The board can interconvert video signal formats, and can provide output signals in different formats for the two SDI outputs.
- Embedded audio supports up to 16 channels, with single level and delay adjustment possibilities.
- Separated digital audio output signal is available.

Embedded Audio Processor board [ VSP-X1000 EAP ]
- Inputting and recognizing two SDI signals. Provides output for 16 channels out of total 32 available embedded audio channels.
- Audio signal levels and delay adjustments of all the channels can be independently carried out.
- 5.1ch surround signals can be down-mixed to 2 channel stereo.

Automatic Changeover board [ VSP-X1000 ACO4 ]
- An automatic changeover board with seamless switching function, equipped with monitoring capabilities of video, audio and Ancillary Packets of max. 4 lines of HD/SD input signals.
- Automatic switching is available with pre-defined switching conditions or manual switching via GPI/Ethernet.
- The board has Program OUT for the main line and Pre-View OUT for monitoring.

MF730 / MF712 Optical converter common frame

<table>
<thead>
<tr>
<th>MF730 common frame (3RU)</th>
<th>MF712 common frame (1RU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of boards to mount</td>
<td>Max. 14 boards *1</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0°C to 40°C</td>
</tr>
<tr>
<td>Configuration</td>
<td>① Frame x 1</td>
</tr>
<tr>
<td></td>
<td>② Power supply board x 1 #2</td>
</tr>
<tr>
<td>Measurements</td>
<td>132(H) x 480(W) x 500(D) mm</td>
</tr>
<tr>
<td>Power supply</td>
<td>① Power supply voltage: 85 to 264VAC (single phase)</td>
</tr>
<tr>
<td></td>
<td>② Frequency: 47 to 63Hz</td>
</tr>
<tr>
<td></td>
<td>③ Power consumption: 350VA (at max. load) *3</td>
</tr>
</tbody>
</table>

*1 This indicates the maximum number of boards which can be installed to MF700/XF700 Series frame with 1 slot size card.
*2 Redundant Power Supply system is available with two power supply units.
*3 The power consumption value indicated is measured under maximum load. Actual power consumption varies depending on the type(s) and quantity of boards mounted in the frame.

Safety precautions
To install, make connections and operate this product, please carefully read and observe instructions, precautions and recommendations in our instruction manuals.

The colours in this brochure may differ from those of the actual unit. Designs and specifications of this product is subject to change without prior notice.

For additional information:
Please contact your nearest NEC sales offices or visit www.nec.com.