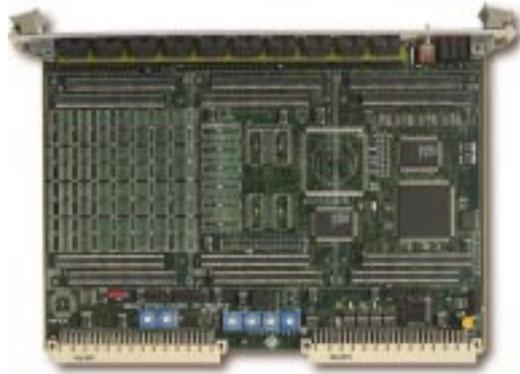# ASP-V3

Triple SHARCPAC VME Carrier

- **1 SHARCPAC/ 3TRANSPAC sites**
- **VME format (power only)**
- **Up to 3GFLOPs/slot (with 3x ASP-M58s fitted)**
- **EZ-ICE/Mountain-ICE compatible**
- **20x 40Mbyte/sec link ports**

Overview

The ASP-V3 is a 6U VME format card with 3 SHARCPAC module sites and 20 external 40Mbyte/sec link port connections. With a capacity for up to 24 SHARCs, the ASP-V3 is well suited to signal processing applications requiring the highest levels of computation and communications performance.

SHARCPAC Sites

For maximum processing power, the ASP-V3's SHARCPAC sites can be used to fit up to eight additional SHARCs per site - for a total of 24 SHARCs on a single board. Alternatively, SHARCPACs can be used for high speed I/O attached directly to the host system through 40Mbyte/sec link ports through the front panel.

The ASP-V3 is intended as a low cost SHARCPAC/TRANSPAC carrier and hence has no VME interface.

Debugging

The ASP-V3 incorporates an EZ-ICE/ Mountain-ICE header to provides in-circuit emulation via JTAG and connected across all SHARCPAC sites. To use this facility, an EZ-ICE emulator and PC- add-in card (available separately) is required. This provides the basis for a complete development and debug environment. Using EZ-ICE allows C-source level debugging within a user-friendly GUI interface and complete control over loading, execution and inspection of program variables.

Link Ports

The ASP-V3 enables connection to the SHARCPAC through 20 link port connector, each capable of 40Mbytes/ sec and shared between the three sites. The ASP-V3 also provides a number of links between the SHARCPAC sites so as to simplify the inter-connections and not compromise the overall system's flexibility and performance.

Power Module and I/O

The ASP-V3's SHARCPAC sites can potentially consume a lot of power. If fitted with three ASP-M58 modules (for a total of 24 SHARC DSPs), the overall power requirement could exceed 60W. To cope with power hungry configurations, Transtech offers an optional power input module - TP2-AD1. The TP2-AD1 is recommended for use with configurations requiring over 30W.

The TP2-AD1 module also supports SPORT I/O from ASP-V3 - 3 SPORT channels, one per SHARCPAC and one TDM SPORT shared between the SHARCPACs.
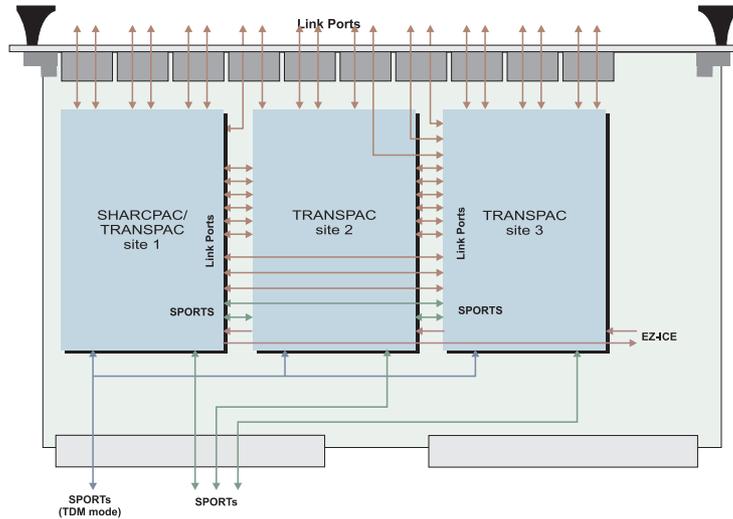
Software Support

All software and communications is provided directly by the mezzanines modules with the support of inter-SHARCPAC link port connections and SPORTs provided by the ASP-V3.

Software support for the SHARCPAC modules include Transtech's ASP Toolset and a range of 3rd party products including Virtuoso™.

www.transtech-dsp.com

Block Diagram

Technical Specification

Processor

None

Memory

N/A

Internal Link Ports

Architecture	Pipeline
Bandwidth	40Mbytes/sec

External Links Ports

Number	7: SHARCPAC1
	4: SHARCPAC2
	9: SHARCPAC3
Bandwidth	40Mbytes/sec
Connector	AMP 1-104074-0

SHARCPACs

2 SHARCPAC or 3 TRANSPAC™

Debug Port

EZ-ICE/Mountain-ICE	14-way 0.1" IDC header

SPORTs

External	3 one per SHARCPAC + TDM mode across SHARCPAC (signal routed via VME P2)
Internal	3 one link between all SHARCPAC sites

Power Requirement

Typical	3W + SHARCPACs

Physical Dimensions

size	6U (Eurocard)

Software Support

N/A - see SHARCPAC modules

Contact Details

Transtech DSP
20 Thornwood Drive, Ithaca, NY 14850-1263, USA
Tel: 607 257 8678 Fax: 607 257 8679
email: sales@transtech-dsp.com

Transtech DSP
19 Manor Courtyard, Hughenden Avenue, High Wycombe, HP13 5RE, UK
Tel: +44(0)1494 464432 Fax: +44(0)1494 464472
email: sales@transtech-dsp.com

www.transtech-dsp.com