

Verification Continuum™

**VC Verification IP**  
**ATB Performance Metrics**  
**Supported Through Verdi**

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# Preface

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## About This Document

This document provides information about the performance metrics of ATB supported with Verdi.

## Web Resources

- ❖ Documentation through SolvNet: <https://solvnetplus.synopsys.com> (Synopsys password required)
- ❖ Synopsys Common Licensing (SCL): <http://www.synopsys.com/keys>

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  - ◆ Include the Product name, Sub Product name, and Product version for which you want to register the problem.
  - ◆ If applicable, provide the information noted in Appendix A, “Reporting Problems” on page 59.
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# Performance Metrics

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The following is the list of ATB Performance Metrics and its description:

## 1 ATB Metrics Description

- ❖ `atb_ctrans_avg_flush_latency`: This metric computes average latency of Flush type transactions at a given port instance.
- ❖ `atb_ctrans_avg_latency`: This metric computes average latency of all ATB transactions at a given port instance.
- ❖ `atb_ctrans_avg_normal_latency`: This metric computes average latency of NORMAL type transactions at a given port instance.
- ❖ `atb_ctrans_avg_trigger_latency`: This metric computes average latency of TRIGGER type transactions at a given port instance.
- ❖ `atb_ctrans_byte_count`: This metric computes total byte count of all ATB transactions at a given port.
- ❖ `atb_ctrans_flush_xact_count`: This metric computes total count of all FLUSH type transactions at a given port.
- ❖ `atb_ctrans_flush_byte_count`: This metric computes total byte count of all FLUSH type transactions at a given port.
- ❖ `atb_ctrans_flush_xact_bandwidth`: This metric gives the flush bandwidth on atb interface. It is calculated as (number of bytes transferred for FLUSH type transactions / time between end of last flush type transaction and start of first flush type transaction).
- ❖ `atb_ctrans_max_flush_latency`: This metric computes the maximum latency of FLUSH type transactions at a given port instance.
- ❖ `atb_ctrans_max_latency`: This metric computes maximum latency of all ATB transactions at a given port instance.
- ❖ `atb_ctrans_max_normal_latency`: This metric computes maximum latency of NORMAL type transactions at a given port instance.
- ❖ `atb_ctrans_max_trigger_latency`: This metric computes maximum latency of TRIGGER type transactions at a given port instance.
- ❖ `atb_ctrans_min_flush_latency`: This metric computes minimum latency of FLUSH type transactions at a given port instance.
- ❖ `atb_ctrans_min_latency`: This metric computes minimum latency of all ATB transactions at a given port instance.
- ❖ `atb_ctrans_min_normal_latency`: This metric computes minimum latency of NORMAL type transactions at a given port instance.

- ❖ `atb_ctrans_min_normal_latency`: This metric computes minimum latency of NORMAL type transactions at a given port instance.
- ❖ `atb_ctrans_min_trigger_latency`: This metric computes minimum latency of TRIGGER type transactions at a given port instance.
- ❖ `atb_ctrans_normal_byte_count`: This metric computes total byte count of all NORMAL type transactions at a given port.
- ❖ `atb_ctrans_normal_xact_bandwidth`: This metric gives the NORMAL xact type bandwidth on atb interface. It is calculated as (number of bytes transferred for NORMAL type transactions / time between end of last NORMAL type transaction and start of first NORMAL type transaction).
- ❖ `atb_ctrans_normal_xact_count`: This metric computes total xact count of all NORMAL type transactions at a given port.
- ❖ `atb_ctrans_sync_xact_count`: This metric computes total xact count of all SYNC type transactions at a given port.
- ❖ `atb_ctrans_trigger_byte_count`: This metric computes total byte count of all TRIGGER type transactions at a given port.
- ❖ `atb_ctrans_trigger_xact_bandwidth`: This metric gives the TRIGGER type transaction bandwidth on atb interface. It is calculated as (number of bytes transferred for TRIGGER transaction type / time between end of last TRIGGER transaction and start of first TRIGGER transaction).
- ❖ `atb_ctrans_trigger_xact_count`: This metric computes total xact count of all TRIGGER type transactions at a given port.
- ❖ `atb_ctrans_xact_bandwidth`: This metric gives the bandwidth on atb interface. It is calculated as (number of bytes transferred for all ATB transactions / time between end of last transaction and start of first transaction).
- ❖ `atb_ctrans_xact_count`: This metric computes total transaction count of all ATB transactions at a given port.
- ❖ `atb_trans_byte_count`: This metric computes byte count of each of the ATB transactions at a given port.
- ❖ `atb_trans_flush_byte_count`: This metric computes byte count of each of the FLUSH type transactions at a given port.
- ❖ `atb_trans_flush_latency`: This metric computes latency of each of the FLUSH type transactions at a given port instance.
- ❖ `atb_trans_latency`: This metric computes the latency of each of the ATB transactions at a given port instance.
- ❖ `atb_trans_normal_byte_count`: This metric computes byte count of each of the NORMAL type transactions at a given port.
- ❖ `atb_trans_normal_latency`: This metric computes latency of each of the NORMAL type transactions at a given port instance.
- ❖ `atb_trans_trigger_byte_count`: This metric computes byte count of each of the TRIGGER type transactions at a given port.
- ❖ `atb_trans_trigger_latency`: This metric computes latency of each of the TRIGGER type transactions at a given port instance.