

4.8 DDR3 240-Pin Connector S-Parameters

Contents

4.8.1 Purpose and Scope	4.8.2
4.8.2 Related Documents	4.8.2
4.8.3 Mechanical Drawings.....	4.8.2
4.8.3.1 Connector Footprint	4.8.2
4.8.3.2 Connector Outline	4.8.3
4.8.3.3 Module Outline.....	4.8.3
4.8.4 Connector S-Parameter Requirements.....	4.8.3
4.8.4.1 S-Parameter Requirements	4.8.3
4.8.4.2 Frequency Domain Requirements	4.8.4
4.8.4.3 Frequency Domain Measurements.....	4.8.5
Annex A Measurement of S-parameters.....	4.8.6
A.1 Required Equipment.....	4.8.6
A.2 Test Fixture and Samples.....	4.8.6
A.3 Sample Preparation.....	4.8.7

Figures

1 – PCB Connector Footprint Refer to JEDEC SO-007 for details.	4.8.2
2 – Connector Outline Refer to JEDEC SO-007 for details.	4.8.3
3 – Module Profile, refer to JEDEC MO-269 for details	4.8.3
4 – T-Rex Base board footprint illustration.....	4.8.5
5 – T-Rex Module board footprint illustration	4.8.5
6 - DUT Board and PCB stackup.	4.8.6

Tables

1 – Related Documents.	4.8.2
2 – Frequency Domain Requirements	4.8.4

4.8.1 Purpose and Scope

The increase in DDR speeds and resultant bandwidth requirements has initiated activities within relevant JEDEC Committees to assess and further determine respectable performance (electrical) criteria for the connector interface (includes the module gold fingers). This document outlines target specifications for DDR3 UDIMM connector that were derived from empirical data (measurement) in terms of the connector to module interface. Other system link components, link topologies as well as transmitter and receiver requirements were discussed and considered in order to reach the consensus reflected in this document.

4.8.2 Related Documents

Table 1 — Related Documents

Document #	Document
MO-269	JEDEC Document: MO (Module Outline)
SO-007	JEDEC Document: SO (Socket Outline)
EIA-364	Electrical Connector/Socket Test Procedures Including Environmental Classifications
EIA-364-1000.01	Environmental Test Methodology for Assessing the Performance of Electrical Connectors and Sockets used in Business Office Applications
T-Rex	S-parameter Measurement Procedure
PS-001	DDR3 Connector Specification

4.8.3 Mechanical Drawings

4.8.3.1 Connector Footprint

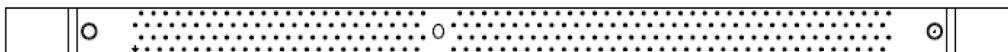


Figure 1 — PCB Connector Footprint Refer to JEDEC SO-007 for details.

4.8.3.2 Connector Outline



Figure 2 — Connector Outline Refer to JEDEC SO-007 for details.

4.8.3.3 Module Outline

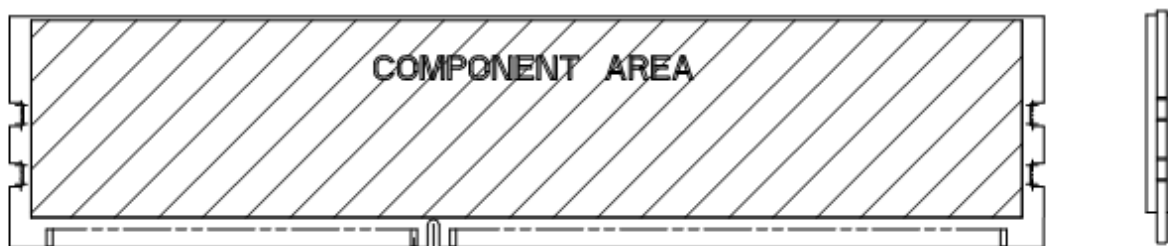


Figure 3 — Module Profile, refer to JEDEC MO-269 for details

4.8.4 Connector S-Parameter Requirements

4.8.4.1 S-Parameter Requirements

See note below Table 2.