SAE INTERNATIONAL®	AEROSPACE STANDARD	AS5652™	REV. A
		Issued 2005-12 Reaffirmed 2013-04 Revised 2018-01 Superseding AS5652	
	10 Megabit/sec Network Configuration Digital Time Division Command/Response Multiplex Data Bus		

RATIONALE

Revision A corrects Figure numbers in the captions. There were no other changes to the content.

FOREWORD

This standard was developed in conjunction with the Miniature Munitions Interface Standard in order to support a distributed RT point-to-point network configuration.

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TABLE OF CONTENTS

1. SCOPE

This SAE Aerospace Standard (AS) contains requirements for a digital time division command/response multiplex data bus, for use in systems integration that is functionally similar to MIL-STD-1553B with Notice 2 but with a star topology and some deleted functionality. Even with the use of this document, differences may exist between multiplex data buses in different system applications due to particular application requirements and the options allowed in this document. The system designer must recognize this fact and design the multiplex bus controller (BC) hardware and software to accommodate such differences. These designer selected options must exist to allow the necessary flexibility in the design of specific multiplex systems in order to provide for the control mechanism, architectural redundancy, degradation concept, and traffic patterns peculiar to the specific application requirements.

1.1 Purpose

This document establishes requirements for digital, command/response, time division multiplexing (Data bus) techniques. It encompasses the data bus line and its interface electronics illustrated on Figure 1, and also defines the concept of operation and information flow on the multiplex data bus and the electrical and functional formats to be employed.
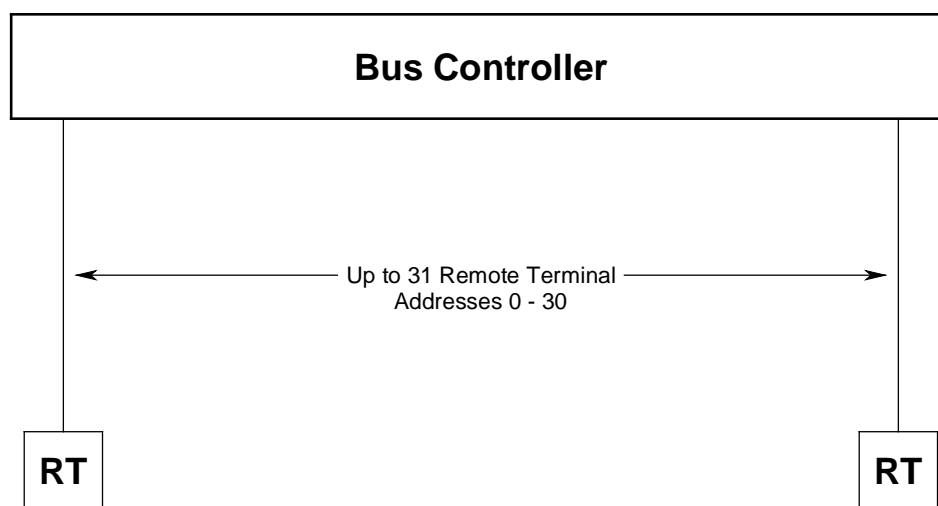

Figure 1 - Data bus network configuration

1.2 Field of Application

When invoked in a specification or statement of work, these requirements shall apply to the multiplex data bus and associated equipment which is developed either alone or as a portion of a Miniature Mission Store weapon system or subsystem development. The contractor is responsible for invoking all the applicable requirements of this standard on any and all subcontractors he may employ.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.