

# ***AS5659/1\_PP859P1 Transparent Optical Backbone Network Specification (Outline)***

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1. Introduction
  - 1.1 Purpose of the document
  - 1.2 Scope
  - 1.3 Background
    - 1.3.1 WDM LAN Layers Overview; OBN introduction (Optical Transport Layer, Optical Multiplex Layer)
    - 1.3.2 WDM OBN: overview of SAE Requirements Effort, Functional Analysis of OBN, ONE, and OFI.
  - 1.4 Specification Information Requirements
2. Applicable Documents
  - ITU wavelength grid: (G.694.1, G.694.2),...
3. Reference Documents
  - SAE WDM LAN Requirements Sub Task document: AIR-6005
  - SAE WDM LAN Modeling and Simulation Sub Task document: AIR-6006
  - SAE WDM LAN Glossary document: AIR-6004, ....
4. OBN, ONE and OFI Specifications
  - 4.1 Definitions
    - 4.1.1 OBN Definitions
    - 4.1.2 ONE & OFI Definitions
    - 4.1.3 BNI and NAI Definitions
  - 4.2 Specification of ONE and OFI transfer functions
    - 4.2.1 ONE templates
    - 4.2.2 OFI templates
  - 4.3 Specification of Interface Application Codes and OBN Interfaces (BNI, and NAI) using SAE requirements document (AIR-6005) templates
    - 4.4.1 Interface application code (representative examples)
      - 4.4.1.1 Digital Signal Codes
      - 4.4.1.2 Analog Signal Code
      - 4.4.1.3 Other Signal codes
  - 4.4 Impairments due to cascaded ONEs (Filter Cascades, amplifier cascades – ASE, & amplifier dynamics)
  - 4.5 WDM OBN and ONE Management and Control Plane Interfaces (Introduction only, cover functionality from ONE perspective, provide pointer to NM&C documents, and correlation to levels 1-4 in NM&C document.

5. Summary and Conclusions
6. Configuration – Summary of document revisions, dates, and their purpose.
7. Appendices – Supplemental material & supporting information
  - Definitions and Terms
  - Acronym list and glossary definitions.

Note:

The following topics should be moved to the top level AS5659 document – A summary can be provided in AS5659/1

- x.1.1 OBN Functions; Analysis and mapping of OBN functions to requirements
- x.1.2 ONE & OFI Functions; Analysis and mapping of ONE & OFI Primitive Functions and ONE Device Level Primitive Functions