SpaceWire Handbook

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SpaceWire WG16
21-23 March 2011

Content

- **Status**

- **Source of Handbook Content**

- **Proposed content**

Status

- **Handbook activity is now an ESA funded project**

- **KO March 2011, duration <2 years**

- **Editors – 4Links**

- **Content – to be agreed / reviewed by SpW WG**

- **Publication**
  - **Web**
  - **Official ECSS Handbook**

Source of HB Content

- **New material**

- **Edited existing material**
  - **e.g. published papers**

- **Contributors**
  - **All contributors will be acknowledged**
  - **Contributors will need to give permission for the material to be used in the handbook / published on the web**

- **Community involvement**
  - **Providing material**
  - **Suggesting authors**
  - **Suggesting existing papers**

Proposed Content - 1

Note: This content is PROPOSED – it is for discussion.

Please suggest new items to be added

and/or items to be deleted.

- **Foreword**
- **Introduction**
  - **Purpose**
  - **Scope**
  - **Document Structure**
- **Terms, definitions and abbreviated terms**
- **References**

Proposed Content - 2

- **ECSS-E-ST-50-12C and related standards**
  - **History and background**
    - **(Shorter version of that in v2.2)**
  - **Context and Concepts**
    - **(How a network functions with packet routing and time broadcast – short and concise. Notes on notation differences from space norms.)**
  - **SpaceWire Protocols**
    - **E-ST-50-51C**
      - **(Purpose of the standard)**
    - **E-ST-50-52C**
      - **(Purpose of the standard)**
    - **E-ST-50-53C**
      - **(Purpose of the standard)**

Proposed Content - 3

- **Specific Topics**
  - **Best practice for SpaceWire implementations**
    - **PCB layout**
      - **(EIA/TIA644 & high speed PCB layout material is available from many places)**
    - **Codec implementation**
      - **(From various IP-core user manuals ?)**
    - **Node implementation**
      - **(Required / optional features)**
  - **Verification and Validation**
    - **Tools / tests**
      - **(Guide to minimum set of tests and how to perform them – from standard + experience)**
  - **SpaceWire network architectures and FDIR**
  - **SpaceWire backplanes**
  - **Other …**

Proposed Content - 4

- **Supporting components**
  - **Flight components**
    - **(ESA developed components [and others?])**
  - **Industry**
    - **(ESA database of suppliers – also NASA, JAXA, ROSCOSMOS?)**

- **Contributors**
  - **(List of contributors)**

- **Annex A …**
  - **(If required)**