



Standard of Japan Electronics and Information Technology Industries Association

JEITA ET-5102A

Standard of 3D Annotated Models
- Datum Systems, JEITA General Tolerancing -

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Preface

This standard was compiled by the Standardization Subcommittee of the 3D CAD Information Standardization Technical Committee of the Japan Electronics and Information Technology Industries Association.

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Japan Electronics and Information Technology Industries Association Standard**Standard of 3D Annotated Models
- Datum Systems, JEITA General Tolerancing -****Introduction**

JEITA's "3D CAD Information Standardization Technical Committee" has performed research in a method for efficiently creating 3D CAD model information concerning products (parts) for subsequent processes by making effective use of information to be input in the process of modeling. The results obtained therefrom have been published as "**JEITA Standard ET-5101**" and applied by member companies.

Past **JEITA** standard **ET-5101** covered specification methods based on "dimensional tolerancing." However, in the fields of aircraft and automobiles, specification methods for mechanical drawings are being shifted to those focusing on "geometrical tolerancing," and we have been aware that these specification methods are becoming the drawing standard on a global scale. Under this circumstance, the Technical Committee has been shifting the method for specifying product (part) characteristics using 3D annotated models to one centered on geometrical tolerancing since 2010.

The Technical Committee became aware that the establishment of "general geometrical tolerancing in geometrical tolerancing" equivalent to "general dimensional tolerancing in dimensional tolerancing" was indispensable for the efficient "design and manufacture of products based on geometrical tolerances" through the application of 3D annotated models.

For this reason, **JEITA** determined to pick out items about an expression method utilizing the features of 3D annotated models, compile them into a standard of "**JEITA general geometrical tolerancing**"¹⁾ applicable to actual operations, publish it as "3D Annotated Model Guidelines Ver. 3.0," and revise and issue major contents of the Guidelines as "**JEITA Standard ET-5102**." The conventional "**JEITA Standard ET-5101**" was repealed accordingly.

Since 2011, we had been participating in the activities of the **JIS** DTPD drafting development committee together with the Japan Automobile Manufacturers Association (**JAMA**).

Regarding 3D shape simplification, we decided to omit it from **JEITA** standard **ET-5102** because **JIS** is progressing.

As an activity toward **ISO**, we have been conducting research on the "general tolerancing" that collectively instructs the 3DA model using the geometrical tolerancing, which is the international standards indication method. We decided to revise the **JEITA** standard **ET-5102** because it clarifies the superiority of the **JEITA** draft and serves as a reference for formulating the **ISO** standard drafts.

This standard will become an integral part of "Digital Technical Product Documentation (DTPD)" in the future.

Note ¹⁾ **JIS** standards already defines provisions about general geometrical tolerancing, but the general geometrical tolerancing set in this **JEITA** standard are referred to as "**JEITA general geometrical tolerancing**" for distinction from the general geometrical tolerancing specified in the **JIS**