IMS Template V6 in US Letter Page Size

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Abstract — **Limit your abstract to one paragraph and keep it short. In the Keywords section, include a few keywords from: http://www.ieee.org/organizations/pubs/ani_prod/keywrd98.txt**

Keywords — **ceramics, coaxial resonators, delay filters, delay lines, power amplifiers.**

I. Introduction

Not all IEEE conferences use the same template. For your paper to be published in the conference proceedings, you must use this document as both an instruction set and as a template into which you can type your own text. If your paper does not conform to the required format, you will be asked to fix it.

Papers which have been reviewed and accepted by the committee may still have format problems identified later by the publisher. All format problems which the publisher has requested you to fix must be fixed before it can be published in the conference proceedings.

Do not reuse your past papers as a template, even if your past papers conformed to the required format. To prepare your paper for submission, always download a fresh copy of this template from the conference website and read the format instructions in this template before you use it for your paper.

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Conversion to PDF may cause problems in the resulting PDF or expose problems in your source document. Before submitting your final paper in PDF, check that the format in your paper in PDF conforms to this template. Specifically, check the appearance of the title and author block, the appearance of section headings, document margins, column width, column spacing, and other features such as section numbers, figure numbers, table numbers and equation numbers. In summary, you must proofread your final paper in PDF before submission.

II. Page Limit and Page Layout

A. Page Limit

The initial submission for review must contain a minimum of 3 pages and a maximum of 4 pages. Papers longer than 4 pages will not be considered. For all accepted papers, the final paper must be a maximum of 4 pages. If authors choose to be considered for the MWTL special issue, the submitted paper must adhere to four pages maximum, where the second column of the last page can only contain references and acknowledgements. In addition, every paper published in the MWTL special issue must contain the footnote: "This article was presented at the IEEE MTT-S International Microwave Symposium (IMS 2023), San Diego, CA, USA, June 11–16, 2023". See also the MWTL instructions on the IMS website.

You must not reduce margins or font-sizes or spacing to meet the page limit. You must not change the required formats to meet the page limit.

In summary, you must follow the formats as shown in this template (e.g. acknowledgments must be formatted as a separate section and not as a paragraph, single author block centered to the page must be used instead of multiple author blocks). You will be asked to fix these format problems if any such format deviations are detected.

An easy way to comply with the conference paper format requirements is to use this document as a template and simply type your text into it.

B. Page Layout

Your paper must use a page size corresponding to US Letter which is 8.5"(215.9mm) wide and 11"(279.4mm) long.

The margins must be set as follows:

- top = 0.75"(19mm)
- bottom = 1"(25.4mm)
- left = right = 0.63"(16mm).

Your paper must be in two column format with a space of 0.25"(6.3mm) between columns.

III. Page Style

A. Text Font of Entire Document

The entire document must be mainly in Times New Roman or Times font. Other fonts (e.g., Symbol font), if needed for special purposes, may be used sparingly. Type 3 fonts must not be used.

Required font sizes are shown in Table 1.

B. Title

Title must be in 18pt regular font style (i.e., not bold and not italic). Title must be in single-column format and must be centered to the page.

Every word in a title must be capitalized except for short minor words such as "a", "an", "and", "as", "at", "by", "for", "from", "if", "in", "into", "on", "or", "of", "the", "to", and "with".

Table 1. Font sizes for papers. Table caption with more than one line must be justified. Table caption with just one line must be centered.

Font Size	Appearance (in Times New Roman or Times)		
	regular	**bold**	*italic*
8	table caption, figure caption, figure label, reference item		reference item (partial)
9	cell in a table	abstract, keywords	also in bold: abstract section heading, keywords section heading
10	level-1 heading, paragraph, equation		level-2 heading, level-3 heading
12	author name, author affiliation, email address		
18	title		

C. Author Block

An author block consists of author names, author affiliations and email addresses. Your paper must contain one author block immediately below the title. The author block must be in single-column format and must be centered to the page. The author block must be in 12pt regular font.

The author block must not show any professional title (e.g., Managing Director), any academic title (e.g., Dr.) or any membership of any professional organization (e.g., Senior Member IEEE).

Do not split an author name into two lines, i.e., an author name must appear entirely on the same line. To avoid confusion, the family name must be written as the last part of each author name (e.g., John A.K. Smith) and must not be shown in all uppercase. To avoid incorrect author name indexing by digital libraries, an author with more than one family name should consider hyphenating the multiple family names (e.g., Francisco Santos-Leal).

Each affiliation must include, at the very least, the name of the company and the name of the country where the author is based (e.g., Causal Productions, Australia). Do not show physical address, phone number or fax number. Each different affiliation must be on a separate line. Same company name with a different location must be treated as if it were a different affiliation.

Email address must be shown for the corresponding author. Email addresses for all other authors are optional.

All affiliation markers must consist of a single unique character in superscript style. Affiliation markers used in this template are: "#", "$", "*", "^". A unique affiliation marker must be used for each different affiliation.

All email address markers must consist of a single unique character in superscript style. Email address markers used in this template are: "1", "2", "3". A unique email address marker must be used for each different author who shows an email address on the manuscript. Authors who do not show an email address must not have an email address marker after their name.

D. Section Headings

No more than 3 levels of headings should be used. All headings must be in 10pt font. Every word in a heading must be capitalized except for short minor words as listed in Section III.B. A heading must not be the last non-blank line in a column.

1) Level-1 Heading

A level-1 heading must be in small caps, centered and numbered using uppercase Roman numerals (e.g., heading of section I). The only exception is in the case of the acknowledgment section heading and the references section heading. These two level-1 section headings must not have section numbers.

2) Level-2 Heading

A level-2 heading must be italic, justified and numbered using an uppercase alphabetic letter followed by a period (e.g., heading of section III.D).

3) Level-3 Heading

A level-3 heading must be italic, justified and numbered using Arabic numerals followed by a right parenthesis (e.g., heading of section III.D.3).

E. Paragraphs

All paragraphs must have an indentation of 0.2"(5.1mm) on the first line. There must not be any spacing before and after a paragraph. All paragraphs must be justified.

F. Figures and Tables

Figures and tables must be centered in the column. Large figures and tables may span across both columns. Any figure or table that takes up more than one column width must be placed either at the top or at the bottom of the page, as shown in Fig. 3 and Table 2.

Graphics may be full color. All colors will be retained in the proceedings. Use only solid fill colors which contrast well both on screen and on black-and-white hardcopy, as shown in Fig. 1, with the black and red curves. Note that simulation and measurement are clearly distinguished through different colors and different line styles. Also, the axis fonts and any labels are not smaller than the figure caption font. Do not attempt to overload the plot with too many separate curves; each curve should be distinguishable.

Fig. 2a shows an example of a low-resolution image which would not be acceptable, whereas Fig. 2b shows an example of an image with adequate resolution. Check that the resolution is adequate to reveal the important detail in the figure.

Check all figures in your paper both on screen and on a black-and-white hardcopy. When you check your paper on a black-and-white hardcopy, ensure the following:

- the colors used in each figure contrast well
- the image used in each figure is clear
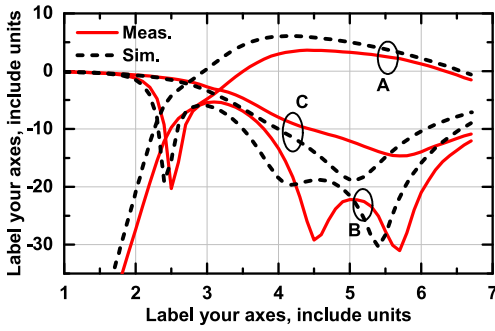- all text labels in each figure are legible.

Fig. 1. A sample line graph using colors which contrast well both on screen and on a black-and-white hardcopy. Figure caption with more than one line must be justified. Figure caption with only one line must be centered.
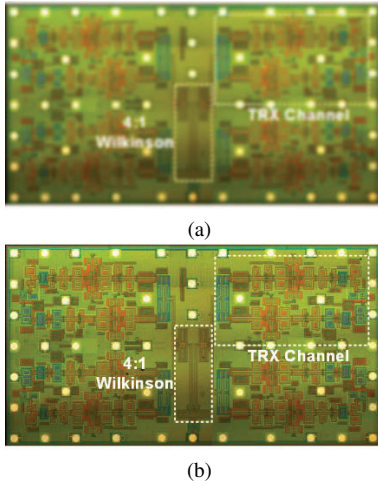

(a)

(b)

Fig. 2. Image resolution: (a) unacceptable; (b) acceptable.

G. Figure Numbers and Table Numbers

Figures and tables must be numbered using Arabic numerals (e.g., 1, 2, etc).

Figures have their own sequence of numbers starting from Fig. 1. Figures must be numbered consecutively in the order they appear in your paper.

Tables have their own sequence of numbers starting from Table 1. Tables must be numbered consecutively in the order they appear in your paper.

H. Figure Captions and Table Captions

Captions must be in 8pt regular font. A single-line caption must be centered (e.g., Fig. 2, Table 2) whereas a multi-line caption must be justified (e.g., Fig. 1, Fig. 3, Table 1).

A figure caption must be placed below the associated figure whereas a table caption must be placed above the associated table.

A caption must be kept together with its associated figure or table, i.e., they must not be separated into different columns or onto different pages.

I. Page Numbers, Headers and Footers

Page numbers, headers and footers must not be used.

J. Links and Bookmarks

During the processing of papers for publication, all hypertext links and section bookmarks will be removed from papers and the affected text will be changed to black color. If you need to refer to an Internet email address or URL in your paper, you must write the address or URL fully in your text in regular font style and black color.

K. Equations

Equations should be centered in the column and numbered sequentially. Place the equation number to the right of the equation within a parenthesis, with right justification within its column. An example would be

$$\oint E \cdot dL = -\frac{\partial}{\partial t} \iint B \cdot dS \qquad (1)$$

or

$$\nabla \times H = J + \frac{\partial D}{\partial t}. \qquad (2)$$

Note that a period is used to properly punctuate the previous sentence. It is placed at the end of the second equation. Make sure that all parts of your equations are legible and are not too small to read. When referring to an equation, use the number within parenthesis. For example, you would usually refer to the second equation as "(2)" rather than "equation (2)".

L. References

The heading of the References section must not be numbered. All reference items must be in 8pt font. Number the reference items consecutively in square brackets (e.g., [1]).

When referring to a reference item, simply use the reference number, as in [2]. Do not use "Ref. [3]" or "Reference [3]" except at the beginning of a sentence, e.g., "Reference [3] shows ...". Multiple references are each numbered with separate brackets (e.g., [2], [3], [4]–[6]).

Examples of reference items of different categories shown in the References section include the following:

M. Balancing Columns on a Page

There is no requirement to balance both columns on any page including the last page, i.e., both columns are not required to be vertically aligned at the bottom. Do not change the vertical spacing to align the bottoms of both columns.

IV. REVIEW SUBMISSION VS. FINAL SUBMISSION

For review submission, in addition to other requirements, the ***IMS double-blind reviewing policy requires that all author details and the acknowledgment section be hidden.*** For final submission, you must ensure that all text which has been hidden for review submission is unhidden. Section V and section VI provide hints on how to hide and unhide information in LaTeX and WORD respectively.

Table 2. Main predefined styles in WORD. A Table that spans 2 columns must be placed either at top of a page or at bottom of a page.

Style Name	To Format ...
IMS Title	title
IMS Author Block	author name, author affiliation, author email address
IMS Author Block + Superscript	affiliation marker or email address marker after an author name, marker before an affiliation or an email address
IMS Abstract/Keywords	abstract, keywords
IMS Abstract/Keywords + Italic	abstract section heading, keywords section heading
IMS Heading 1	1st level section heading
IMS Heading 2	2nd level section heading
IMS Heading 3	3rd level section heading
IMS Paragraph	paragraph
IMS Figure	figure to be centered
IMS Figure Label	label placed below a component of a figure, e.g., (a) in Fig.2
IMS Caption Single-Line	figure or table caption containing one line
IMS Caption Multi-Lines	figure or table caption containing more than one line
IMS Ack/Ref Heading	acknowledgment section heading, references section heading
IMS Reference Item	reference item

V. INFORMATION FOR LaTeX USERS ONLY

A. Information to Hide for Review Submission

To hide text for blind review submission, please ensure that the following two lines in the .tex file appear uncommented and commented as shown below:

\IMSthispaperforblindreview

...

% \IMSthispaperforfinalpublication

B. Information to Unhide for Final Submission

For final submission, you must ensure that all text which has been hidden for blind review submission is visible by commenting the following two lines as shown:

% \IMSthispaperforblindreview

...

\IMSthispaperforfinalpublication

C. All Other Must-Reads

There are important differences between the IEEE format and the IMS format, so you must use all files provided in the IMS LaTeX template.

If the appearance is different from what is shown in this template, then the cause may be the use of conflicting style files in your .tex file (e.g., latex8.sty). You must remove all such conflicting style files.

For the table caption to appear above the table, you must place the table caption at the start of the table definition and before the table cells in your .tex file.

Authors must use the \raggedbottom option (as used in this template file) to avoid LaTeX inserting inconsistent and sometimes large spacing around section headings, around captions and around paragraphs.

You must follow the formats as shown in this template. You must not use alternative styles which are not used in this template (e.g. two-author block).

VI. INFORMATION FOR WORD USERS ONLY

A. Information to Hide for Review Submission

To hide text for blind review submission, select the text to be hidden, left click to select the "Font" panel, and then check "Hidden" under the heading "Effects". ***To keep the page layout unchanged, for each hidden line, you must insert one blank line using the same style as that of the hidden text.***

B. Information to Unhide for Final Submission

For final submission, you must ensure that all text which has been hidden for blind review submission is unhidden. Simply select the entire WORD file, left click to select the "Font" panel, and then uncheck "Hidden" under the heading "Effects". Remove all blank lines you have inserted as placeholders for the hidden text.
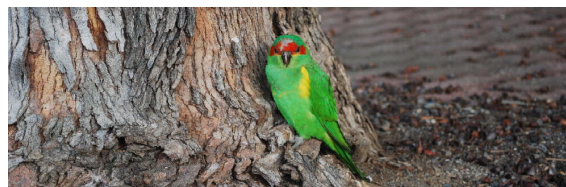

Fig. 3. A figure which spans two columns must be placed either at the top of a page or at the bottom of a page. Figure caption with more than one line must be justified. Figure caption with only one line must be centered.

C. All Other Must-Reads

You must use the styles in Table 2 to format your paper. To format using a style name, open the "Styles" task pane under "Home", select the text to be formatted, then select an appropriate style in the "Styles" task pane.

When the heading styles in Table 2 are used (e.g., "IMS Heading 1" style), section numbers are no longer required to be typed in because they will be automatically numbered by WORD. Similarly, reference items will be automatically numbered by WORD when the "IMS Reference Item" style is used.

Section headings must not be in all uppercase. Capitalize the headings and then format them using an appropriate style from Table 2.

Caption width must be the same as the column width or the page width excluding the margins. You must type the caption as a separate new paragraph and then format the caption using an appropriate style from Table 2. Captions must not be placed into a table or a text box because it is difficult to set the caption width correctly within these structures. For the same reason, insert caption command, group command or other similar commands must not be used.

Reference items must not be formatted as a table. You must use the appropriate styles from Table 2 to format the reference items.

After changing from single column format to two column format (e.g. after Table 2), always make sure that both the column width and the column spacing are the same as specified in the last paragraph of section II.B.

If your WORD document contains equations, you must not save your WORD document from ".docx" to ".doc" because when doing so, WORD will convert all equations to images of unacceptably low resolution.

VII. CONCLUSION

The format of this template was adapted by Causal Productions mainly from the IEEE LaTeX class file. There are important differences between the IEEE format and the IMS format, so IMS authors must use only the latest version of the IMS templates.

IMS offers US Letter templates for LaTeX and WORD. The version of this template is V6. Changes from V5 to V6 are:

- page limit in section II.A, including updated information on page formatting requirements for final papers for proceedings or MWTL submission
- For LaTeX version, show LaTeX double-blind instructions first
- For WORD version, show WORD double-blind instructions first
- list of changes from previous version to current version.

REFERENCES