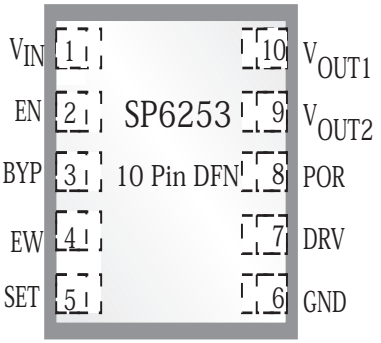
# Short Descriptive Title Here

## FEATURES

- This information is provided by the Design Team at time PDS is generated
- PDS (Product Definition Spec ) and Advance Datasheets are controlled and under the responsibility of applications until handed over to Techpubs and it becomes a PRELIMINARY datasheet
- Moving from Advance to Prelim -- Apps Director needs to sign off, and the Design Verification of First Silicon document needs to be uploaded into Sharepoint.
- Arial Font ONLY
- These bullet items usually show up in the press release
- Available in Lead Free, RoHS Compliant Packaging. This particular bullet item is standard.



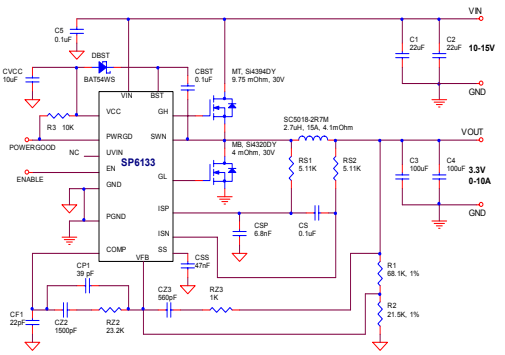

Pinouts are part of the original PDS from Design and verified in the bonding diagrams. They need to be submitted in a form that is editable by Adobe Illustrator. Note the font shuld be changed

~~*Remove the green BLURB about Lead Free Packaging, it is now considered a standard bullet item*~~

## DESCRIPTION

The description should be short enough to fit in between the Features Bullets and the Typical Application Circuit. Note that ARIAL Font is the only one used throughout, besides some specialty fonts such as Symbol or making diacritics more recognizable such as the capital i in ILIM.

## TYPICAL APPLICATION CIRCUIT




these diagrams are generated by applicatons engineer. It is best if Techpubs receives them as vector format such as .ai or some Encapsulated Post Script (EPS) We constantly fight a battle of lost resolution. We also need to be able to re-purpose these files in the future, and edit them when mistakes are discovered.

## ABSOLUTE MAXIMUM RATINGS

most information.....
Supplied by PRODUCT ENGINEERING

Thermal Resistance..... 41.9°C/W
supplied by packaging

These are stress ratings only and functional operation of the device at these ratings or any other above those indicated in the operation sections of the specifications below is not implied. Exposure to absolute maximum rating conditions for extended periods of time may affect reliability.

Note Grey scale on top label for tables -- 20%

## ELECTRICAL SPECIFICATIONS

~~Unless otherwise specified: -40°C < $T_{AMB}$ < 85°C, 4.5V < $V_{CC}$ < 5.5V, BST=Vcc, SWN = GND = PGND = 0.0V, $UV_{IN}$ = 3.0V, CVcc = 10µF, $C_{COMP}$ = 0.1µF, CGH = CGL = 3.3nF, $C_{SS}$ = 50nF, $R_{PWRGD}$ = 10KΩ. THis section should be 7point type~~

| PARAMETER | MIN | TYP | MAX | UNITS | CONDITIONS |
|---|---|---|---|---|---|
| **QUIESCENT CURRENT** | | | | | |
| VIN Supply Current | | 1.5 | 3.0 | mA | VFB = 1V (no switching) |
| VCC Supply Current | | 1.5 | 3.0 | mA | VFB = 1V (no switching) |
| BST Supply Current | | 0.2 | 0.4 | mA | VFB = 1V (no switching) |
| **PROTECTION: UVLO** | | | | | |
| VCC UVLO Start Threshold | 4.00 | 4.25 | 4.5 | V | |
| VCC UVLO Hysteresis | 150 | 200 | 250 | mV | |
| UVIN Start Threshold | 2.35 | 2.50 | 2.65 | V | Apply voltage to UVIN pin |
| UVIN Hysteresis | 200 | 300 | 400 | mV | Apply voltage to UVIN pin |
| VIN Start Threshold | 9.0 | 9.5 | 10.0 | V | UVIN Floating |
| VIN Hysteresis | | 300 | | mV | UVIN Floating |
| Enable Pullup Current | | 0.4 | | µA | Apply voltage to EN pin |
| **ERROR AMPLIFIER REFERENCE** | | | | | |
| Error Amplifier Reference | 0.792 | 0.800 | 0.808 | V | 2X Gain Config. |
| Error Amplifier Reference Over Line & Temperature | 0.788 | 0.800 | 0.812 | V | |
| COMP Sink Current | 70 | 150 | 230 | µA | |
| COMP Source Current | -230 | -150 | -70 | µA | |
| VFB Input Bias Current | 1 | 50 | 100 | nA | |
| COMP Common Mode Output Range | 1.9 | 3.0 | 3.2 | V | |
| COMP Pin Clamp Voltage | 3.2 | 3.5 | 3.8 | V | VFB = 0.7V |

**Output Capacitor Selection**

<---Most of this EC and absolute Max information is supplied by Product engineering. Typical specs are supplied in the advance phase, min and max are supplied at RTP. If there are any changes to the EC spec, Product Engineering must Sign off. It is best to keep the file as an MSExcel document, format it, then import it as a table. The formatted document can be sent to Product Engineering and their updates will arrive pre-formatted.

The Table Font size is subject to the control of Techpubs so that the information requested can be placed on the table within the right number of pages with an eye towards optimizing readability. It is discretionary whether to split the EC table, and judicious use of white space is allowed for optimizing the readability and compression of information. But the resultant font size should not be less than 6 if possible.

$$\sqrt{(I_{PP}R_{ESR})^2 + \left\{\frac{I_{PP} \times (1-D)}{C_{OUT} \times F_S}\right\}^2}$$

where:
Fs = Switching Frequency
D = Duty Cycle
COUT = Output Capacitance Value
Equations: There some two options for the Overline. One is to use the line above and run spaces _____across the width that are underlined. Sometimes the space needs to be preceded by a period... at minimum size. This will force-align the text when the items get imported or exported to another software program. Another option is to draw a line and group it with the text. That's the option shown, and note that the overline can move when you don't want it to, even within a document. A third option is to use the ~~strikethrough capa~~bilities of text and then select the text, go to character tab, click on the small triangle within the circle, strikethrough options, weight (2pt here) and Offset (10pt here).

**10 Point Initial Cap Bold Arial Left**

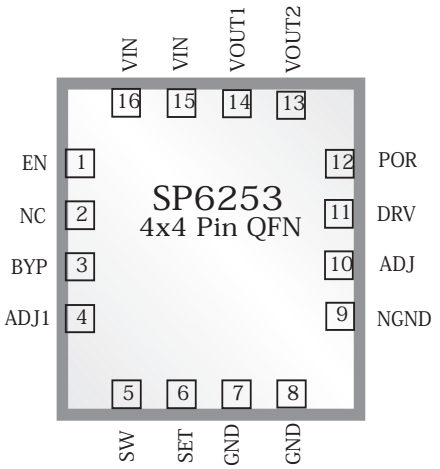
The Headers should be 10points Bold, non-italic, left justified. But the PAGE HEADERS should be 10point ALL CAP right with a

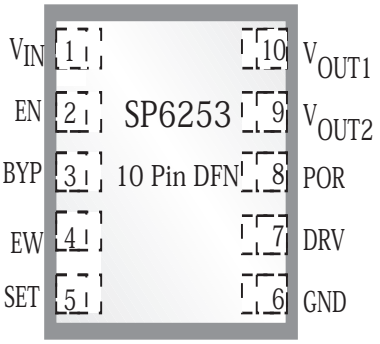
2 POINT LINE

~~The total output ripple is a combination of the ESR and the output capacitance value and can be calculated as follows:~~

$\Delta V_{OUT}$ =

$$I_{CIN(RMS)} = I_{OUT(MAX)} \times \sqrt{D \times (1-D)}$$




*Note: Die attach paddle is internally connected to GND.*

For the SP6133, this note was added well after the datasheet went out to customers, suggested by field personnel. We need a round of field corrections before FINAL.

Pinouts are part of the original PDS from Design and verified in the bonding diagrams. Sometimes when there are multiple pinouts, about half a page will be dedicated to them. Note that as with other diagrams, if the original font was not Arial they tend to default to Tines New Roman.

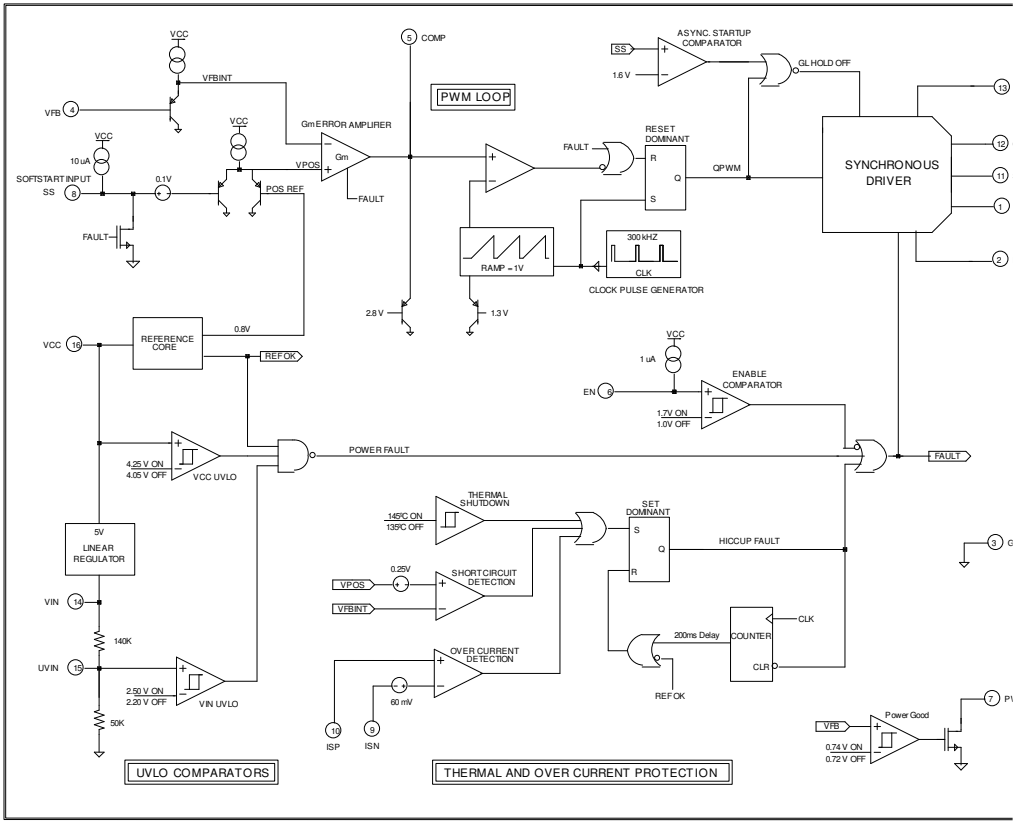
## PIN DESCRIPTION

| PIN # | PIN NAME | DESCRIPTION |
|---|---|---|
| 1 | | Pin description is supplied by Design in the PDS. |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |

Block diagrams are supplied by design. Same battle of lost resolution. Older ones were done by design engineers in a software called "Scenario" , which outputs a vectorized file format but is not capturable in Paintshop Pro. But the clipboard can be saved into an MSWord file and the vectorized file is recoverable in Adobe Illustrator.

## BLOCK DIAGRAM



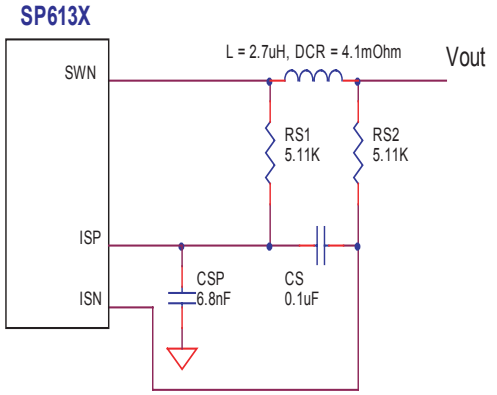

 

**General Overview**

The original information is supplied by Design at PDS and then edited and expanded by applications & marketing through Advance and Preliminary stages.

**Diagrams**

Diagrams are supplied by Applications for preliminary release. Best format is vectorized such as .ai, .DXF or vectorized EPS but there is no standard for this information due to the large number of CAD programs. Adobe Illustrator can open and modify .DXF files.




***Figures should be labelled at the bottom of the diagram in 10 pt Bold Italic Arial, centered to diagram***

Equations are verified by Applications

**No More Subscripts!!!!**

As a policy, we are moving away from $S_{UBSCRIPTS}$. They don't work well, often running $IN^2$ THE sentence below, especially on tables. Small Caps is preferred. Note that in the equation below, an underline is used across the whole numerator, which is not possible using $S_{UBSCRIPTS}$.

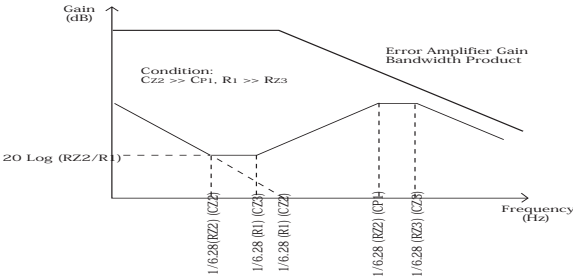
$$IV_{IN} = \frac{C_{OUT} \bullet \Delta V_{OUT}}{\Delta T\text{Soft-start}}$$

~~The SP6133 provides the user with the option to program the soft start rate by tying a capacitor from the SS pin to GND. The selection of this capacitor is based on the 10µA pull up current present at the SS pin and the 0.8V reference voltage. Therefore, the excess current source can be redefined as:~~

$$IV_{IN,\,X} = C_{OUT} \bullet \Delta V_{OUT} \bullet \frac{10\mu A}{(C_{SS} \text{ X } 0.8V)}$$

Judicious use of white space is highly recommended throughout datasheets in the vertical range so that in the future, when there are possible edits, the technical writer does not need to completely lay out the document again & again and also if there is a change in software, it is more manageable.




***Bode Plots are supplied by Design. It would be nice if we could get Excel to generate them because then we could do more calculations on the web such as***
***http://www.sipex.com/files/ApplicationNotes/ThermalCalculator.xls***

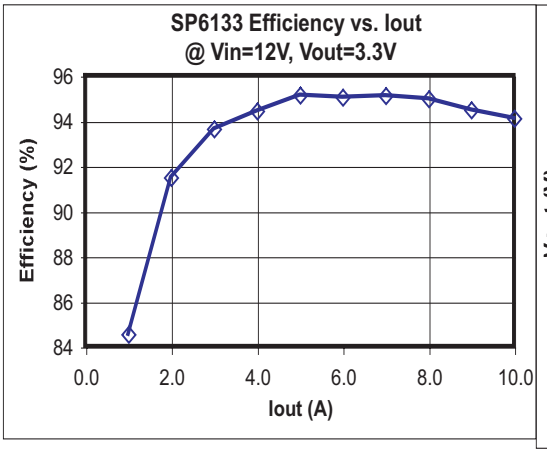
***Component selection charts supplied by applications. The best way to do them is to generate the chart in Excel and then create a PDF & import it because the information tends to clutter and the size of the table grows if the minimum font size is follow Note the grey scale on top of each header row.***

| INDUCTORS - SURFACE MOUNT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Manufacturer/Part No. | Inductance (uH) | Inductor Specification | | | | | Manufacturer Website |
| | | Series R mOhms | Isat (A) | Size LxW(mm) | Size Ht.(mm) | Inductor Type | |
| **Inter-Technical SC5018-2R7M** | **2.7** | **4.10** | **15.0** | **12.6x12.6** | **4.5** | **Shielded Ferrite Core** | www.inter-technical.com |
| CAPACITORS - SURFACE MOUNT | | | | | | | |
| Manufacturer/Part No. | Capacitance (uF) | Capacitor Specification | | | | | Manufacturer Website |
| | | ESR ohms (max) | Ripple Current (A) @ 45C | Size LxW(mm) | Size Ht.(mm) | Voltage (V) | Capacitor Type |
| **TDK C3225X7R1C226M** | **22** | **0.005** | **4.00** | **3.2x2.5** | **2.0** | **16.0** | **X7R Ceramic** | www.tdk.com |
| **TDK C3225X5R0J107M** | **100** | **0.005** | **4.00** | **3.2x2.5** | **2.5** | **6.3** | **X5R Ceramic** | www.tdk.com |
| MOSFETS - SURFACE MOUNT | | | | | | | |
| Manufacturer/Part No. | MOSFET | MOSFET Specification | | | | | Manufacturer Website |
| | | RDS(on) mΩ (max) | ID Current (A) | Qg nC (Typ) | Qg nC (Max) | Voltage (V) | Foot Print |
| **Vishay Si4394DY** | **N-Channel** | **9.75** | **14** | **12.5** | **-** | **30** | **SO-8** | www.vishay.com |
| **Vishay Si4320DY** | **N-Channel** | **4** | **22** | **45** | **70** | **30** | **SO-8** | www.vishay.com |

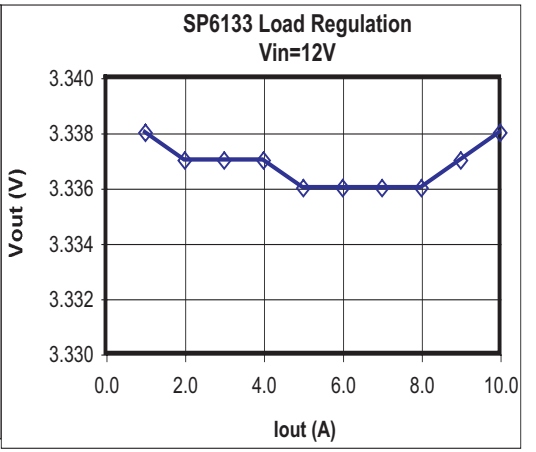
Note: Components highlighted in **bold** are those used on the SP6133 Evaluation Board.

***Table 1. Input and Output Stage Components Selection Charts***

***Efficiency curves are supplied by applications after bench testing, so they need silicon to test.***



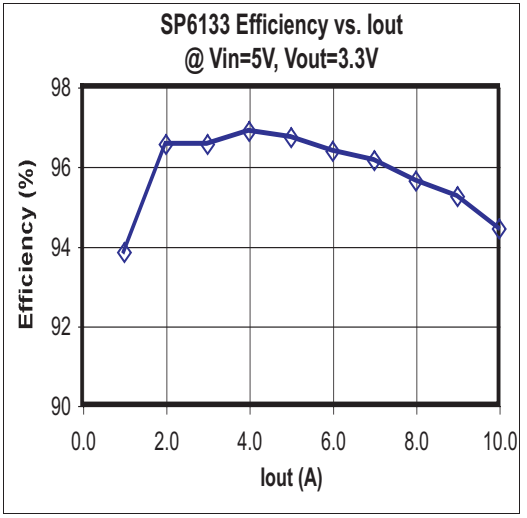

***Efficiency vs. IOUT, VIN = 12V***



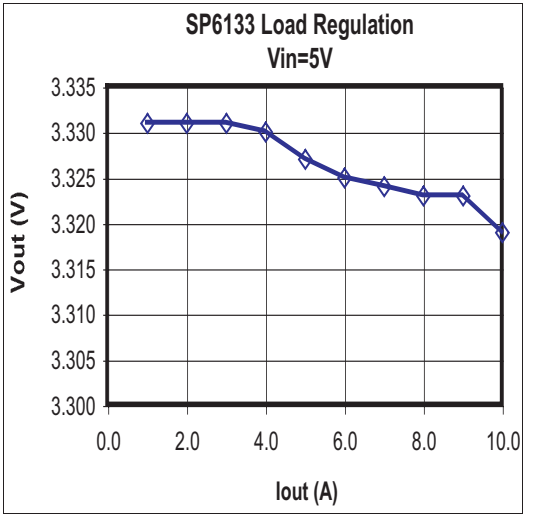

***Load Regulation, 12V***

***Note that the rest of the industry is moving away from numbered figures because when you change the information, the sequencing dtends to get messed up. Ed said that's a good idea.***

***We do not have a standard for the number of graphs on a page because we want to remain flexible. It's preferred to have 6/page.***

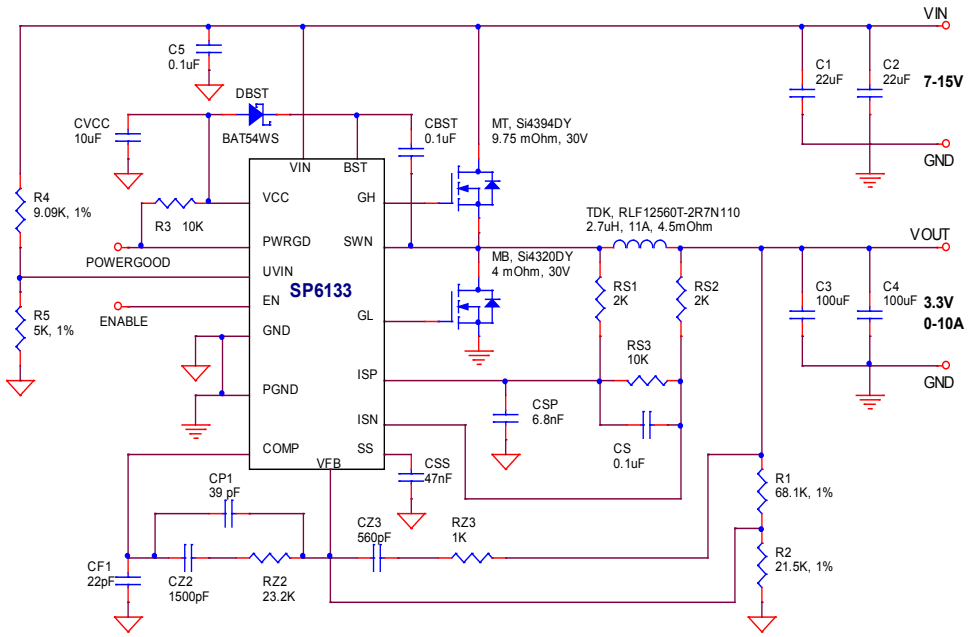



***Efficiency vs. IOUT, VIN = 5V***




***Load Regulation, 5V***

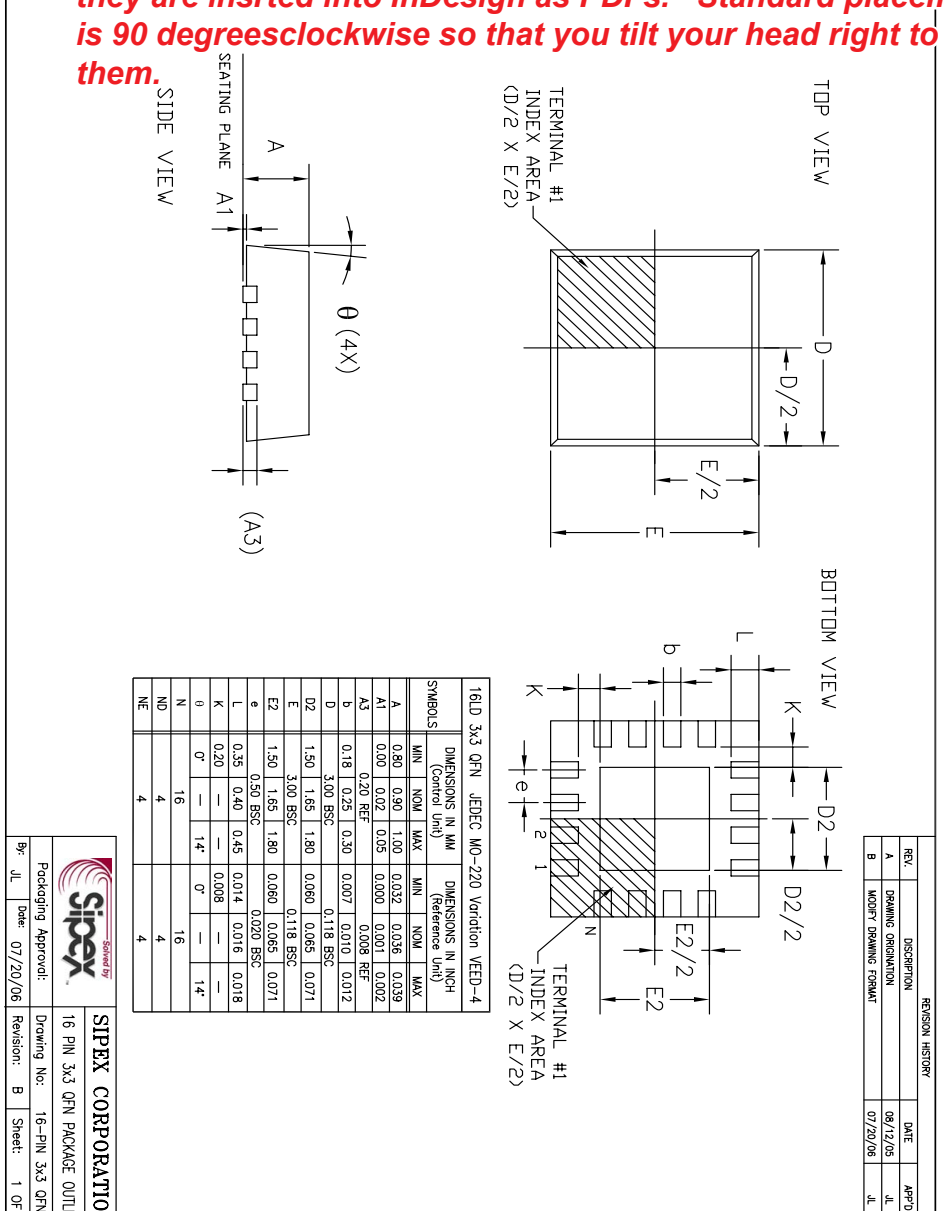



***Schematic Diagrams are supplied by Applications. They are based upon silicon test boards or eval boards and require a round of silicon testing & verification. We often lose resolution. Best format is vectorized such as .ai, .DXF, sometimes EPS but some of the schematics are done in odd CAD programs. Fonts need to be standardized. Arial is preferred due to universality, ease of reading, and it is usually one of the first choices available. Note that the Ohms symbol Ω should be INCLUDED. The reason why it is becoming shorthand not to include it is because it is too difficult to find in MSWord and other software packages such as schematic capture. But there is a requirement from IEEE that ALL UNITS MUST BE DESIGNATED. Other symbols such as u for micro are acceptable but it is preferred to have µ. Some software programs scramble these symbols in font substitution and such things as Ohms can become Watts, which is completely unacceptable. Therefore, if the preferred symbol such as Ø or µ or ∑ or Ω is not available, spelling out Ohms is needed.***

For efficiency curves, scope shots, and all diagrams it is required that they be submitted to Techpubs in a format that is editable using standard software such as MSExcel, MSWord, Adobe Illustrator. We sometimes get a request to change a certain resistor value or nomenclature and it cannot be done within diagrams if the files are not editable.

***Package Outline drawings are no longer generated by Marketing due to resource issues in packaging department, as of Q1 2006. The package selection is due before Advance stage but the PODs are on a separate schedule than datasheets. All new datasheets are to have updated PODs. Since this information changes, it is suitable as dynamically linked. Marcom no longer has access to the original source material for PODs, so they are insrted into InDesign as PDFs. Standard placement is 90 degreesclockwise so that you tilt your head right to view them.***




REVISION HISTORY

| REV. | DESCRIPTION | DATE | APP'D |
|---|---|---|---|
| A | DRAWING ORIGINATION | 08/12/05 | JL |
| B | MODIFY DRAWING FORMAT | 07/20/06 | JL |

16LD 3x3 QFN JEDEC MO-220 Variation VEED-4

| SYMBOLS | DIMENSIONS IN MM (Control Unit) | | | DIMENSIONS IN INCH (Reference Unit) | | |
|---|---|---|---|---|---|---|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.80 | 0.90 | 1.00 | 0.032 | 0.036 | 0.039 |
| A1 | 0.00 | 0.02 | 0.05 | 0.000 | 0.001 | 0.002 |
| A3 | | 0.20 REF | | | 0.008 REF | |
| b | 0.18 | 0.25 | 0.30 | 0.007 | 0.010 | 0.012 |
| D | | 3.00 BSC | | | 0.118 BSC | |
| D2 | 1.50 | 1.65 | 1.80 | 0.060 | 0.065 | 0.071 |
| E | | 3.00 BSC | | | 0.118 BSC | |
| E2 | 1.50 | 1.65 | 1.80 | 0.060 | 0.065 | 0.071 |
| e | | 0.50 BSC | | | 0.020 BSC | |
| L | 0.35 | 0.40 | 0.45 | 0.014 | 0.016 | 0.018 |
| K | 0.20 | — | — | 0.008 | — | — |
| θ | 0° | — | 14° | 0° | — | 14° |
| N | | 16 | | | 16 | |
| ND | | 4 | | | 4 | |
| NE | | 4 | | | 4 | |

SIPEX CORPORATIO

16 PIN 3x3 QFN PACKAGE OUTL

| By: | Date: | Packaging Approval: | Drawing No: | 16-PIN 3x3 QFN |
|---|---|---|---|---|
| JL | 07/20/06 | | Revision: B | Sheet: 1 OF |

| Part Number | Temperature Range | Packages | Pin Count | Pack Qty |
|---|---|---|---|---|
| SPX1117JM3-L/TR | -40 to +85 °C | SOT-223 | 3 | 2,500/TR |
| SPX1117JM3-L-1-5/TR | -40 to +85 °C | SOT-223 | 3 | 2,500/TR |
| SPX1117JM3-L-1-8/TR | -40 to +85 °C | SOT-223 | 3 | 2,500/TR |
| SPX1117JM3-L-2-5/TR | -40 to +85 °C | SOT-223 | 3 | 2,500/TR |
| SPX1117JM3-L-2-85/TR | -40 to +85 °C | SOT-223 | 3 | 2,500/TR |
| SPX1117JM3-L-3-3/TR | -40 to +85 °C | SOT-223 | 3 | 2,500/TR |
| SPX1117JM3-L-5-0/TR | -40 to +85 °C | SOT-223 | 3 | 2,500/TR |
| SPX1117JU-L | -40 to +85 °C | TO-220 | 3 | 50/TUBE |
| SPX1117JU-L-1-5 | -40 to +85 °C | TO-220 | 3 | 50/TUBE |
| SPX1117JU-L-1-8 | -40 to +85 °C | TO-220 | 3 | 50/TUBE |
| SPX1117JU-L-2-5 | -40 to +85 °C | TO-220 | 3 | 50/TUBE |

~~Available in lead free packaging. To order add "-L" suffix to part number.~~

~~Example: SP6133ER1/TR = standard; SP6133ER1-L/TR = lead free.~~ Do not show this BLURB because Lead Free is considered STANDARD issue.

/TR = Tape and Reel

Pack quantity is 2500 for QFN.

***Ordering information is supplied by Marketing according to a nomenclature standard #280-0055. Sometimes there are off-spec variations. This info is subject to change and is the #1 problem for the customer service group because customers can't order parts or don't have the right ordering info (such as Lead Free) and the information is not correlated with PROMIS nor ORACLE. Since this information changes, it is suitable as dynamically linked.***

**Sipex Corporation**

**Headquarters and Sales Office**
233 South Hillview Drive
Milpitas, CA 95035
TEL: (408) 934-7500
FAX: (408) 935-7600



| DATE | REV | Changes Implemented | Input Source |
|---|---|---|---|
| | | | |
| | | | |
| Feb27-06 | | Added “Solved by Sipex tm” @ end and LOGO. Grey scale on tables, | Kevin O'Malley, |
| | | Changing links and metatags for more suitable search engine results. | Brad Hudon |
| | | Ordering information can’t have dots, must have dashes. | Mark Levi |
| | B | Changed Header to single box Fill grey 30% edge wt 4/40% grey . | Sally Pena |
| Apr-06 | C | Add Revs to datasheets | Ed Lam |
| Oct19-06 | D | Updating to current look & feel with the aim of using this document as the Datasheet Standard moving forward, to be posted in Forms area of Partnernet. | Kevin O'Malley |
| Nov 15-06 | E | Added white space wording, greyscale wording. Need diagrams to be editable. Added Terminology, Datasheet Procedures, Approval loop | Kevin O'Malley |
| Nov 27-06 | F | New Header template which accommodates a utilitarian approach, taking the older header and merges with new header using Infix ONLY. Added Frequently Encountered Issues. | Kevin O'Malley |
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| | | | |

***Revision Info was added in November 2005 per Ed Lam's request. It is only a summary. The info is not included in outgoing datasheets but only appears when the "to be approved" blurb shows. A more detailed Revision Control Document is kept in the same electronic folder as the datasheet for each revision. It addresses the issues of What, When, Who (asked for change) and Why, plus the Authorizations and emails associated with each change.. It is suitable to copy all the pertinent emails and save them as one RevCTRL file on that drive.***

 

Nov7 per Jon Cronk: Throughout the document where “KHz” is used, please use “kHz”. See this web page
http://searchnetworking.techtarget.com/sDefinition/0,,sid7_gci212441,00.html

Techpubs often receives conflicting directions regarding units. Consequently, we searched for a standard that everyone has access to and is engineering oriented. We found the Uniform Code for Units of Measure.
http://aurora.rg.iupui.edu/UCUM/ucum.html
We intend to follow this standard in our datasheets and on the web, wherever possible. It is a utilitarian approach towards using units, as seen by their approach to things like "curly braces"... Curly braces are here because people want annotations and deeply believe that they need annotations. Especially in chemistry and biomedical sciences, there are traditional habits to write annotations at units or instead of units, such as “%vol.”, “RBC”, “CFU”, “kg(wet tis.)”, or “mL(total)”. These habits are hard to overcome. Any attempt of a coding scheme to restrict this percieved expressiveness will ultimately result in the coding scheme not being adopted, or just “half-way” adopted (which is as bad as not adopted). Two alternative responses to this reality exist: either give in to the bad habits and blow up of the code with dimension- and meaningless unit atoms, or canalize this habit so that it does no harm. The Unified Code for Units of Measure canalizes this habit using curly braces. Nevertheless we do continuing efforts to upgrade doubtful units to genuine units of The Unified Code for Units of Measure by defining and linking them to the other units as good as possible. Thus, “g%” is a valid metric unit atom (so that “mg%” is a valid unit too.)

 

## October 2006: Advance Datasheet Procedure

## Note This Procedure was loaded onto the Compli system.

There are several factors which are pushing out the PDS datasheet conversion process.

1. Our current work backlog is 4-5 weeks.
2. Some of the datasheets have gone through more than 25 revisions, such as the SP6222. This is not an optimal use of everyone's time.
3. We have different, new software and the old Adobe Pagemaker has completely crashed.
4. Application Engineers continue to ask to be able to edit the source material later on in the process.

Consequently, Technical Publications (Techpubs) will be entering into the process later in the release cycle, at the Preliminary stage when the data is more finalized, there are already curves & graphs available, and we can concentrate on the layout and look & feel with higher confidence that the technical information is more refined. We will be using the Production Release checklist to determine if a project really has moved onto the prototype stage, which is typically more than 9 months long. In phase 2/Design Phase, the responsibility for the Advance datasheet will reside with applications engineering. The handoff moving forward for the Preliminary datasheet will occur at the time of the

Data Review

and any findings will be incorporated into the next level of datasheet at Preliminary status. After a datasheet is at the Preliminary stage, it gets pulled into a layout program such as Adobe InDesign, and edits can no longer be done in MSWord. After first submittal, and once approved to be uploaded as Preliminary, future changes are done via written specific instruction, step-by-step, with specific page# cited, and explicit instructions. The director of applications engineering will release the document to Marcom in order to ensure that it is a well done document and that it is a complete & accurate preliminary specification. Preliminary datasheets also begin the introduction of approval loops, eventually something that will take place in Sharepoint.

That means that some of the PDS documents will remain in MSWord longer than before. The document would actually become an Advance Datasheet under the care, supervision & responsibility of the Application Engineer. In order to do that, we'll need to give applications engineers the ability to generate PDFs from MSWord. In the past we have introduced the usage of PDF editors for the editing process, and that worked well. Now we suggest the

 

use of PDF writers which are freely available as downloads at such places as download.com. Enclosed are instructions for downloading a PDF writing utilty.

Advanced datasheets can be sent to TechPubs@sipex.com or Kevin O'Malley for uploading to partnernet once they are in PDF form.

If you have issues with downloading PDF Utilities or Writers, the IT Help Desk can assist you or give me a call.

Kevin O'Malley

Technical Publications 408 635 7495

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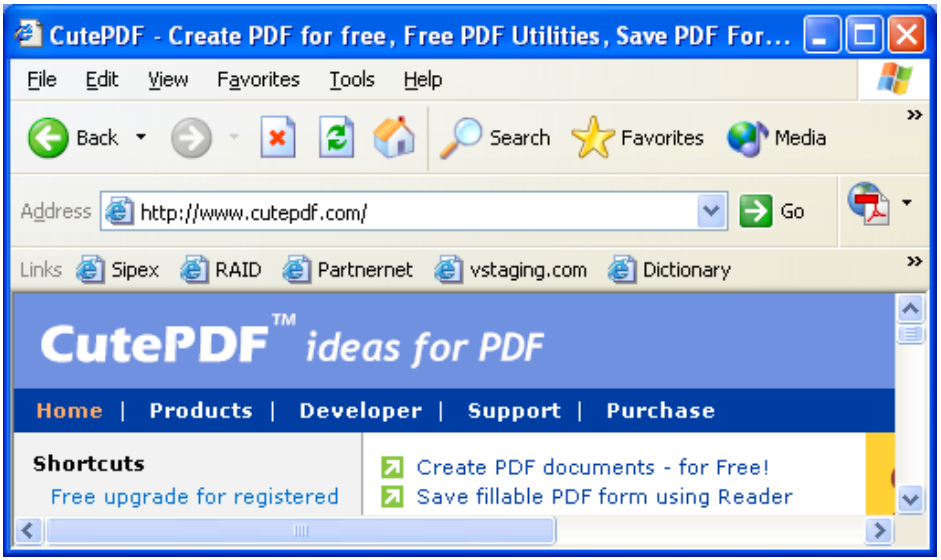


 


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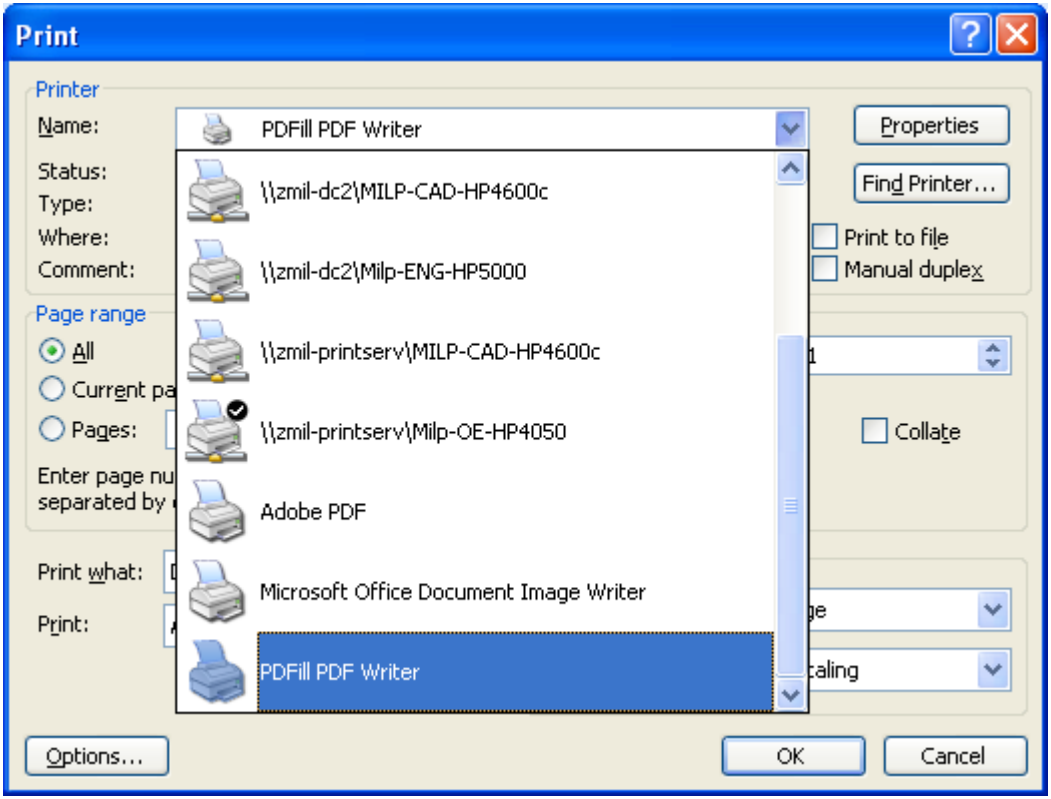
# Using a PDF writer

When you have your SAVED document (such as MSWord), you print as if you were going to send it to a printer. Then one of the options will be your PDF writer rather than a printer.




Click on OK and “print” the file. It generates the PDF and will save it in the same folder that the MSWord document is in.

We first found this tool at http://www.download.com/ These FREE pdf writer utilities are loss-leaders intended to bring customers to respective software house websites where they hope you’ll be interested in their higher end products for sale. Do a search for “pdf writer” (there will be a lot of hits), then scroll down towards the bottom of the page and filter the results for FREE licenses available under the OS that your system is running.

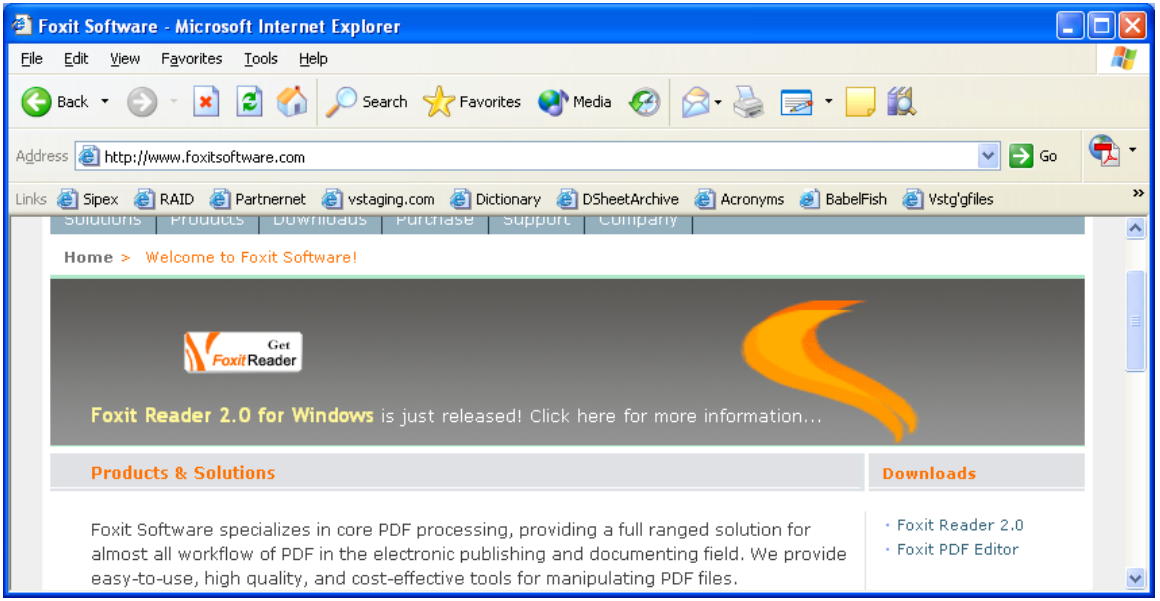
That will give you the available choices in case you don’t like that particular PDF Writer.

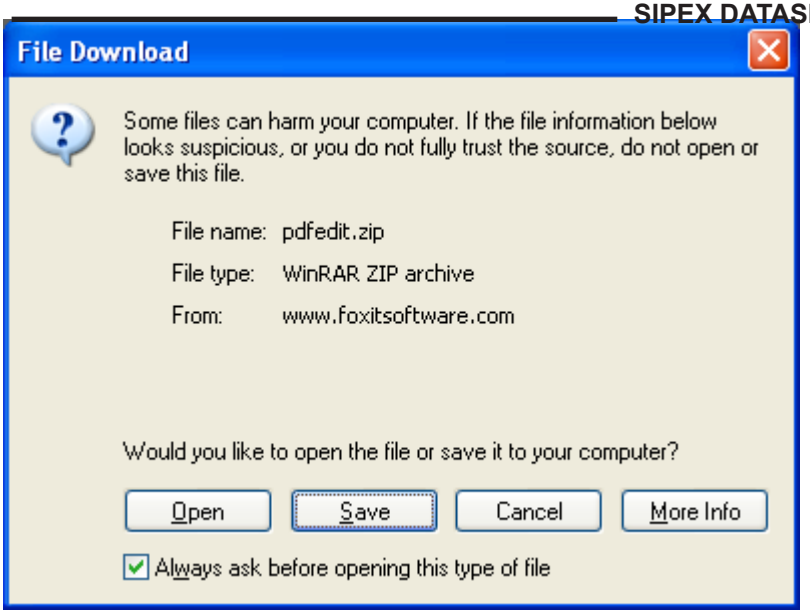
# How to download a free PDF Editing utility.

Follow the same instructions as in Downloading a free PDF Writer but instead of searching for “PDF Writer” search for “PDF Editor”. We recommend Foxit.

You can download a full version of Foxit PDF Editor from http://www.foxitsoftware.com/pdf/pdfedit.zip . You can use any of the features without purchasing a license key, however in evaluation mode, when you save a modified PDF document, an evaluation mark will be put on every page you modify with Foxit PDF Editor. To install, unzip the downloaded package in a temporary folder, then run PDFSetup.exe. An uninstaller is provided as well.



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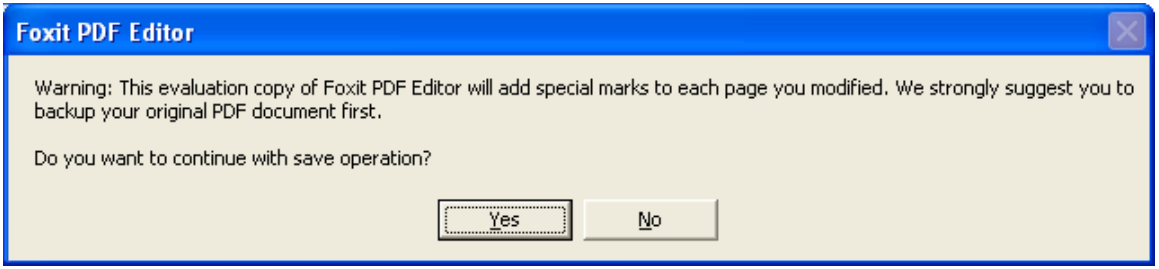


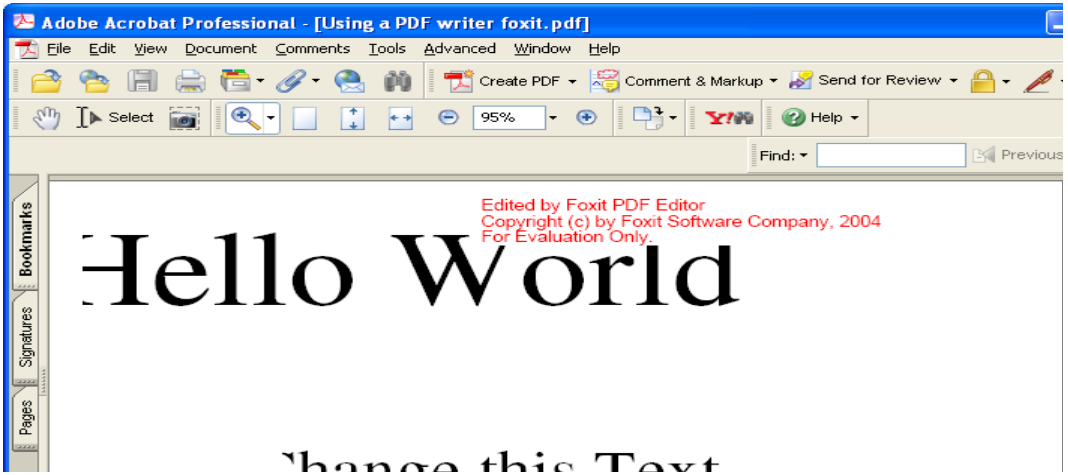


 

| Project | Need signoff from: Email Header | Signoff Progress: Original Starting Date | Product Description | Current Project State --> Aimed State | Signoff Progress: New Starting Date | Signed off by Design : Date | Signed off by Apps : Date | Signed off by Mktg : | Signed off by Product Eng : Date | Signed off for Prelim: Sally | Signed off For FINAL: Ed Lam | Signed off For FINAL: Quality | Signed off For FINAL: Packagi | Upload to ADS folder, RFS# for | Ed's Priority 1= high 5= low |
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| SP690T | Greg West | 07/17/06 | | PCN --> Corrected | | | | | | | | PCN | | | |
| SP690T Signed Off | zz | 07/17/06 | | Final --> Corrected | | | | Chris Lee 7/18 | 9/22 Tom Horiye | | | | | | |

## Datasheet Approvals Process

Obtaining approvals is a very cumbersome part of the process, but considered necessary in order to ensure high quality of information reaching the customer. Techpubs has been actively seeking ways to automate the process but to no avail. Currently, IT is aiming towards a Content Management Initiative that includes the usage of Sharepoint, which should have the ability to send out automated notices and track approvals.

## Datasheet TACIT approvals Process

For Advance and Preliminary datasheets, the TACIT approval process was implemented in May 2006 so that such datasheets would not end up in a continual holding pattern, as had been observed. In October 2006, Advance Datasheets formally fell under the bailiwick of applications engineering.

Preliminary datasheet (end of Phase 3) has corrected spec table based on 1st silicon and added applications information, but not the graphs.
***Current Approval Loop: Design, Marketing, Apps, Product Engineering.
Suggested tacit approval cutoff point: 2 reminder emails, 1 phone call from Techpubs and 4 business days.
Visual standards: 2 column format, once approved, the splash “Preliminary” stamped on each page. Reduced number of fonts, right & left justified, start to make the presentation of the data “look good”. Try for higher resolution graphs & diagrams.

Final datasheet (end of Phase 4) contains updates on the spec table, apps section and also has the characterization graphs included.
***Current Approval Loop: Design, Marketing, Apps, Product Engineering, Quality, Packaging, Ed Lam.
NO Tacit approval. Signatures are a gating item.

Visual standards: once approved, no splash on each page. Highest possible resolution on each graph, incorporating such vectorized file formats as .DXF and .ai.

## FREQUENTLY ENCOUNTERED ISSUES

**Question:**
Why does <such & such> take so long? I can do it in <MSWord, Excel, etc.> much faster.
**Answer:**
Datasheets are done in Layout software, which is typically very quirky to operate and these things simply take time. The decision to utilize Typesetting & Desktop Publishing software was made by management long before, and it occasionally is revisited. The current layout software is Adobe InDesign, which is superior to the prior software, Adobe Pagemaker (PM). In fact, the techpubs system completely crashed in July 2006 for PM and we have moved to a system where existing datasheets are edited using PDF editors, and new datasheets are ported to InDesign. We have worked our backlog down from 7 weeks to 1-2 weeks.

The Sipex web was architected with a view towards security and control and was not optimized for fast & dynamic uploads. This process is also being revisited by management for optimization of turnaround time.

 

**Question:**
How soon can I get <such&such> datasheet?
**Answer:**
It depends. If we have a hypothetical 100 items in our queue, each of which takes a hypothetical 1 hour to do, that's a 100-hour queue. If a particular datasheet is #33 in the queue, it would take 33 work hours to finish in this example, if an item was #65 in the queue it would take 65 work hours, and so on. Not all requests are given the same measure of priority nor do they (obviously) all take one hour.

**Prioritization**
Our priority system is from 1 to 5 (1 being highest, 5 being lowest.) Techpubs regularly sends out a report with the queue as well as prioritization plainly visible to all internal customers, so any negotiating for higher priority needs to be done with the manager of the department. The following is a description of how we prioritize requests.

1) Direct Customer requests for web change and/or datasheet changes. Significant datasheet technical changes which can affect customer implementations. Sipex core value: interrupt any business activity to meet a customer need, supported by rapid, high quality action.
2) Cross References (these generate revenue). Catalog web entry requests. Sipex Core value: We better our processes & prouducts every day.
3) Normal requests. New application notes, new Design Solutions. Most Requests for Service (RFS) with IT department. Sipex core value: we make commitments and execute to them rather than give an unachievable commitment date and cause our business & reputation to lose trust.
4) FAQs. Long term projects. Squire duty. Sipex core value: We are forthright & timely in all communications and we expect that of others.
5) Cosmetic requests, based upon the fact that less than 1% of customer interactions indicate dissatisfaction of appearance of technical publications whereas a very high level of dissatisfaction with incorrect/misleading/incomprehensible technical information. Low ROI (Return on Investment) requests.

Floating Priority:
As an RTP date or due date approaches, the consequent priority of that request tends to go higher. Priority is based upon commitment dates as found in
\\Zmil-salisbury\Sales\Marketing\Release Schedules
for now, and probably sharepoint for later once it is up & running.

 