






Part #:	<b>900V SiC MOSFETs</b>	   
Description:	10x higher dielectric breakdown field strength, 2x higher electron saturation velocity, 3x higher energy bandgap, and 3x higher thermal conductivity	 <a href="#">Download Datasheet</a>

## EEVblog Electronics Community Forum

A Free & Open Forum For Electronics Enthusiasts & Professionals

**Hello volvo\_nut\_v70**

Show unread posts since last visit.  
 Show new replies to your posts.  
 August 11, 2020, 04:30:08 pm

 This topic 

- Home
- Help
- Search
- Profile
- About us
- My Messages
- Calendar
- Links
- Members
- Logout

EEVblog Electronics Community Forum » Electronics » Projects, Designs, and Technical Stuff » Tektronix TDS3000 Oscilloscope Modules TDS3UAM



### Power Up Your Bench!

30% off Used E36300 Series triple output power supplies

SHOP NOW



## \$2 for 2Layer PCBs, 5pcs

Trusted by 700k+ Customers, Stable Production in Multi-factories



« previous next »

Pages: 1 2 3 [All] **Go Down**

REPLY UNNOTIFY MARK UNREAD SEND THIS TOPIC PRINT SEARCH

Author

Topic: Tektronix TDS3000 Oscilloscope Modules TDS3UAM (Read 21772 times)

volvo\_nut\_v70, analogRF and 0 Guests are viewing this topic.

**circlethecat**  
 Newbie  
 Posts: 4  


**Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« on: October 11, 2012, 06:47:39 pm »

Hello,

The TDS3000 scopes are getting a bit long in the tooth but I still like them. Extra features can be enabled with plug-in modules, most aren't that useful really but the TDS3AAM adds a few nice math utilities. Anyway, there is information scattered around the internet about a TDS3UAM module which enables all the features - I've just collected it together in the attached document, might be useful to someone.

Does anybody know how to clear the error log on TDS3000 scopes? I replaced an intermittent floppy drive (yes, very old-school) but annoyingly there is still an error message shown in the log (under Utility menu). I think there is a remote (GPIB / ethernet) command but it's not documented anywhere as far as I can see?

TDS3UAM.pdf (362.38 kB - downloaded 2352 times.)

Report to moderator Logged

**qno**  
 Frequent Contributor  
  
 Posts: 422  
 Country:   


**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #1 on: October 12, 2012, 03:49:08 pm »

Try TekScopes@yahoo.com

Lots of repair info.

Report to moderator Logged

Why spend money I don't have on things I don't need to impress people I don't like?

**free\_electron**

Super Contributor



Posts: 7452

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #2 on: October 12, 2012, 09:34:09 pm »

hold the cal button in the back while powering up the scope. tis unlocks an extra utility menu where you can clear the errors.  
the set it again: same procedure.

The trickery with the eeprom is not required. simply flash the latest scope firmware. Tek released a final build with all options enabled when they discontinued this line.

Report to moderator

Professional Electron Wrangler.

Any comments, or points of view expressed, are my own and not endorsed, induced or compensated by my employer(s).

**alm**

Guest

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Reply

Quote

« Reply #3 on: October 13, 2012, 12:14:21 pm »

I believe this update added FFT, advanced triggering and some of the video features, not other options like advanced analysis (more measurements, statistics, advanced waveform math) or mask testing. I think it was just to make it competitive with competitors, not to stop charging \$500 for an I2C EEPROM.

Report to moderator

**circlethecat**

Newbie

Posts: 4



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #4 on: October 15, 2012, 08:05:59 pm »

@qno  
Thanks, I'll try there.

@free\_electron  
Holding the cal button (on back of scope) during boot does enable the calibration option but I can't see any option to clear the error log. Was worth a try though, thanks.

@alm  
Yes, you're spot on there. The latest firmware for TDS3000 & TDS3000B scopes is V3.41 which enables the TDS3TRG, TDS3FFT and partial TDS3VID functionality. The EEPROM trickery is required to unlock TDS3AAM, TDS3TMT, TDS3LIM and full TDS3VID. This trickery should also work for the TDS3000C which is still on sale - would be good if someone could confirm that.

Report to moderator

**WigglerAway**

Newbie

Posts: 4



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #5 on: September 06, 2013, 11:53:21 pm »

I'm digging up this post to add some new information to it.

I had a look in the oscilloscope firmware and found a couple of undocumented modules TDS3ENG and TDS3BTA. TDS3BTA appears to enable beta functions but even more interesting TDS3ENG enables all features.

Since I had two original modules which were made redundant by the firmware upgrades (TDS3FFT and TDS3TRG). Instead of creating a TDS3UAM I reprogrammed a single one as a TDS3ENG. This enabled all the features without any hardware mods 🤖

Report to moderator

**alm**

Guest

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Reply

Quote

« Reply #6 on: September 07, 2013, 12:18:57 am »

Nice find. I'm guessing TDS3ENG stood for engineering and allowed the engineers to test all features without fiddling with half a dozen application modules that don't all fit in the scope at the same time.

Report to moderator

**WigglerAway**

Newbie  
Posts: 4



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #7 on: September 08, 2013, 11:48:03 pm »

Yes the actual description in the firmware is 'Engineering All Application Module'. I had a question over private message about the firmware format and though I ought to reply here as well in case it is useful to anyone else. The TDS3000 firmware updates had a 96 byte header and was then compressed in unix compress format (LZW).

Report to moderator Logged

**Netsniper**

Newbie  
Posts: 3



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #8 on: September 09, 2013, 08:53:26 am »

Thanks WigglerAway for your job!

Where do you find the firmware of the TDS3000, do you have make an extract directly from the TDS3000 of do you use the firmware files (V3.41) available from Tektronix site?  
If you use files from Tektronix, how you merge files from floppy files?

I have try to edit the firmware file of mine DPO2000 but inside I don't find anything as "DPO2COMP" or other word about option...

I have make some key for DPO2000 options, but we can only activate 2 options at same time and 3 option are available...

I have two card with 24LC16 available and I have program the first with DPO2COMP and DPO2AUTO and the second with DPO2EMB. If I plug one OR the other, it' work with option inside, but If I plug two card at same time, the DPO2000 don't want to activate all at same time and it deactivate option card.

In the futur...I will send my post at the forum

Report to moderator Logged

**WigglerAway**

Newbie  
Posts: 4



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #9 on: September 09, 2013, 01:32:22 pm »

**Quote from: Netsniper on September 09, 2013, 08:53:26 am**

Where do you find the firmware of the TDS3000, do you have make an extract directly from the TDS3000 of do you use the firmware files (V3.41) available from Tektronix site?  
If you use files from Tektronix, how you merge files from floppy files?

I just looked at v3.41 available online. I didn't get very far understanding the firmware update format, I stopped after I found evidence of the TDS3ENG module so never tried to understand the relationship between disks.

**Quote from: Netsniper on September 09, 2013, 08:53:26 am**

I have two card with 24LC16 available and I have program the first with DPO2COMP and DPO2AUTO and the second with DPO2EMB. If I plug one OR the other, it' work with option inside, but If I plug two card at same time, the DPO2000 don't want to activate all at same time and it deactivate option card.

The 24LC16 doesn't have the hardware address lines connected internally so can't support more than one part on the bus. If they are both connected, they will both try to respond to the master at the same time (and fail).

Report to moderator Logged

**voltsandjolts**

Supporter  
  
Posts: 906  
Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #10 on: October 31, 2013, 10:23:29 pm »

Looks like the TDS3000 and TDS3000B scopes might be the same hardware for all bandwidths.  
Strings on firmware disk 3:

Could Not Program Instrument Model as Commanded: HW is TDS 30X4B.  
Could Not Program Instrument Model as Commanded: HW is TDS 30X2B.  
Could Not Program Instrument Model as Commanded: HW is TDS 30X4 (No Suffix).  
Could Not Program Instrument Model as Commanded: HW is TDS 30X2 (No Suffix).

Where X is the bandwidth designation.

Would be nice to make a TDS3014 into a TDS3054, hmm, I wonder what those commands are...


Report to moderator  Logged

 **drsurfer**

Contributor



Posts: 15

Country: 



 **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« **Reply #11 on:** December 08, 2013, 08:28:17 am »

Hi all, this is my first post here. 🙄

I found this thread by chance and I have some questions.

I'm trying to build a module to enable DPO2COMP and DPO2EMBD features of my MSO2024 scope, according the info I found online, mainly on <http://forum.tsebi.com/viewtopic.php?f=4&t=113>

My first attempt has failed 🙄, I suspect my SIM card connector is not working properly because its position is wrong. I have no access to a dummy module: I've never seen one up close, so my first request is if anyone has a mechanical drawing or, at least, accurate measurements of it. I have access to a 3D printer, and I could replicate the plastic shell o the module. I could take some measurements from images found here and there, but there are many views missing, and the result would be much more less accurate.

The second question is related to the EEprom contents.

I've noticed that in the hex file from the PDF in the first message of this thread, beside the strings with the module name, there is a (fake ?) version number.

I wonder if this is required for my scope and/or modules, too.

Thanks.

Report to moderator  Logged

 **digger**

Newbie

Posts: 3



 **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« **Reply #12 on:** October 09, 2014, 08:14:32 am »

resurrecting an old thread, sorry guys..

**Quote from: WigglerAway on September 06, 2013, 11:53:21 pm**

I had a look in the oscilloscope firmware and found a couple of undocumented modules TDS3ENG and TDS3BTA. TDS3BTA appears to enable beta functions but even more interesting TDS3ENG enables all features.

**Quote from: WigglerAway on September 08, 2013, 11:48:03 pm**

Yes the actual description in the firmware is 'Engineering All Application Module'. I had a question over private message about the firmware format and though I ought to reply here as well in case it is useful to anyone else. The TDS3000 firmware updates had a 96 byte header and was then compressed in unix compress format (LZW).

hell yeah, WigglerAway. thanks! i heard of the existence of some master key, and i was getting frustrated trying to unpack the tds3000 fw. then i came across this thread... 🙄

**out of curiosity, has anyone found master/engineer keys for other tek scope series? e.g. DPO2xxxx (maybe DPO2ENGR? idk)**

**Quote from: drsurfer on December 08, 2013, 08:28:17 am**

Hi all, this is my first post here. 🙄

I found this thread by chance and I have some questions.

I'm trying to build a module to enable DPO2COMP and DPO2EMBD features of my MSO2024 scope, according the info I found online, mainly on <http://forum.tsebi.com/viewtopic.php?f=4&t=113>

My first attempt has failed 🙄, I suspect my SIM card connector is not working properly because its position is wrong. I have no access to a dummy module: I've never seen one up close, so my first request is if anyone has a mechanical drawing or, at least, accurate measurements of it.

I have access to a 3D printer, and I could replicate the plastic shell o the module.

I could take some measurements from images found here and there, but there are many views missing, and the result would be much more less accurate.

in the extremely unlikely event that you still care, i can measure the blank/dummy module for you. let me know

Quote from: drsurfer on December 08, 2013, 08:28:17 am

The second question is related to the EEPROM contents. I've noticed that in the hex file from the PDF in the first message of this thread, beside the strings with the module name, there is a (fake ?) version number. I wonder if this is required for my scope and/or modules, too.

Thanks.

yeah, i was wondering about this, too...

**can someone please paste a dump of a legit TDS3xxx module just so we can see what it looks like?**

thanks!

Report to moderator Logged

**Lunasix**

Regular Contributor



Posts: 131

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« Reply #13 on: October 09, 2014, 08:40:53 am »

Say Thanks Reply Quote

<https://www.eevblog.com/forum/testgear/mso2000-application-module-hack/45/>

Report to moderator Logged

**digger**

Newbie

Posts: 3



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« Reply #14 on: October 09, 2014, 09:08:49 am »

Say Thanks Reply Quote

cool, unpacked tds3000c fw update,

TDS3BTA Beta Test Application Module

TDS3ENG Engineering All Application Module

**TDS3XXX Advanced Unknown Application Module**

i wonder if that last one actually does anything if you load it up

Report to moderator Logged

**Lunasix**

Regular Contributor



Posts: 131

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« Reply #15 on: October 09, 2014, 09:10:43 am »

Say Thanks Reply Quote

It will ask you to update the firmware of the scope, as it doesn't know what to do with.

« Last Edit: October 09, 2014, 09:41:15 am by Lunasix »

Report to moderator Logged

**hafirse**

Regular Contributor



Posts: 76

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« Reply #16 on: December 13, 2014, 02:38:34 pm »

Say Thanks Reply Quote

Hi,

Wher can I find the HEX string for the TDS3ENG ?

thanks in advance!

George

Report to moderator Logged

**voltсандjolts**

Supporter



Posts: 906

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« Reply #17 on: December 13, 2014, 05:21:09 pm »

Say Thanks Reply Quote

I haven't tried this myself (see attached .hex) but I think this should work.

Its just a modification of the HEX file in the first post here.

tds3eng.hex (0.72 kB - downloaded 980 times.)

Report to moderator Logged

**hafirse**




Regular Contributor








**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« Reply #18 on: December 14, 2014, 08:07:14 am »

Say Thanks Reply Quote

Posts: 76  
Country:   
  

**cncjerry**

Supporter  
    
Posts: 974  
 

Thanks for the information

« Last Edit: December 14, 2014, 08:09:47 am by hafse »

[Report to moderator](#)  [Logged](#)

 **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#) [Reply](#) [Quote](#)

« Reply #19 on: January 06, 2015, 05:35:21 am »

wow, what a deal. I followed the PDF and bought a pack of 24C16 chips for like \$5USD shipped. Not wanting to wait for the programmer I also ordered to get here, i coded an Arduino UNO to program the 24C16. I soldered jumpers on the sim carrier and have my 24c16 on a breadboard.






The scope enables TDS3AAM, the one I wanted, but says there is a version error on the others. All versions are coded as v1.00 in the hex file. Any ideas what needs to be changed or valid versions? My scope is running 3.41, I believe.

Thanks, AAM is pretty cool. I wouldn't mind having the masking modules enabled. I will try programming the TDS3ENG to see if that works as well.

Jerry

[Report to moderator](#)  [Logged](#)

**cncjerry**

Supporter  
    
Posts: 974  
 

 **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#) [Reply](#) [Quote](#)

« Reply #20 on: January 06, 2015, 05:56:13 am »

Coding TDS3ENG hit the jackpot. People hack the RIGOLs and gain about \$500 in features; hack the TDS3000 series and it is about 10x that or more.

Application modules detected:

- \* TDS3TRG      Advanced Trigger
- \* TDS3VID      Extended Video
- \* TDS3FFT      FFT
- \* TDS3AAM      Advanced Analysis
- \* TDS3LIM      Limit Test
- \* TDS3TMT      Telecom Mask Test
- \* TDS3BTA      Beta Enabled
- \* TDS3SDI      601 Digital Video

The first three were enabled with version 3.41 software. I'll probably regret having Beta enabled as I have no idea what it does, if anything.




The 601 digital video is extracted below:

The TDS3SDI module enables broadcast engineers and technicians to view ITU-R BT.601 digital video waveforms, allowing them to quickly verify source, timing and amplitude throughout any production facility. The module operates in TDS3000 Series DPOs, providing digital video engineers with a quick, single-instrument, portable solution for qualitative troubleshooting of digital video signals. The module's capabilities, combined with the portability and flexibility of the battery-capable TDS3000 DPOs, make it ideally suited for crowded video production environments, especially those hard-to-reach components behind the rack, and for testing remote video network components. The unit combines the qualitative analysis functionality of several larger units in a single, compact, portable instrument.

Rather than use a waveform monitor, video analyzer and digital-to-analog converter, a broadcast engineer can reach for a TDS3054 with the TDS3SDI module to troubleshoot video outputs or trace a signal. Thus, providers of video can quickly diagnose and solve the problems that keep them from delivering high-quality video products.

[Report to moderator](#)  [Logged](#)

**aquaman8**

Newbie  
Posts: 3  
Country:   
 

 **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#) [Reply](#) [Quote](#)

« Reply #21 on: July 15, 2016, 07:47:53 pm »

Hi cncjerry,

I know it has been a while, but can you confirm which hex file you used. Did you use the hex file that voltsandjolts posted in this thread on December 14, 2014 (i.e. tds3eng.hex)? If not, could you please post the hex file you used to program your eeprom.

Thanks for your help and your time!

Mitch


« Last Edit: July 16, 2016, 03:58:24 pm by aquaman8 »

Report to moderator  Logged **voltsandjolts**

Supporter



Posts: 906

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #22 on: July 17, 2017, 08:28:36 am »

Looks like there are remote commands that can be used to upgrade your TDS3000 bandwidth. Check this thread:

<https://www.eevblog.com/forum/testgear/tds-1000-2000-3000-bw-hack/>

Report to moderator  Logged **darkstar49**

Regular Contributor



Posts: 164

 **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote


« Reply #23 on: August 17, 2017, 09:26:00 pm »

enclosed some info on the TDS3UAM, as the site has meanwhile disappeared...

But, as already stated earlier in this post, the TDS3UAM module (apart from the technical challenge) is a nonsense !!

Get your hands on a TDS3FFT/TRG (no longer needed as activated by default in the latest TDS3x fw), and overwrite the content as needed (TDS3ENG is the only option needed for TDS3x scopes).

These modules work in ALL non-MDO scopes where they physically fit... the nice thing with DPO3/4K being that the 'licence' can be 'transferred' from the module to the scope, so if you manage to reprogram it, you can enable all the options with a single module (one option at a time...)

 tds3uam.pdf (362.38 kB - downloaded 478 times.)

Report to moderator  Logged **BenKenobi**

Regular Contributor



Posts: 86

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #24 on: October 05, 2017, 02:55:00 pm »

I'm planning 'this' the last posts seem to indicate that the existing modules can be 're coded' i.e. a TD3FFT can be reprogrammed so I take it that it's an EEPROM ?

If the module itself can be reprogrammed what's the best method to connect the pins of the module to say an Arduino - the Arduino bit I can handle, the reprogramming too but the other stuff needs some input from those that are more experienced. I don't want to dismantle the app module if I don't need to.

Report to moderator  Logged **prof6**

Newbie

Posts: 1

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #25 on: October 26, 2017, 06:49:46 pm »

Hello everyone,

Few days ago I bought a Tektronix TDS3014 scope and 10 minutes ago I successfully "upgraded" to TDS3054 and I used TDS3ENG Hex file to activate all features. Guys, it is awesome! 😄

Few experience what I would like to share:

- even an original plugin module has x24c02 eeprom and write NOT protected by hardware pin, you can not reprogramm it. (Seriously I do not know why, it is writeable only from 0x00 till 0x04)
- I found one atmel 24c02b eeprom on my old PC 256Mb DDR1 RAM, (but of course it is happened after that I already ordered some eeprom...) So I replaced original eeprom on the original plugin module and tadaaamm I can erase it and program to as TDS3ENG module.

In the next minutes I excitedly watched the booting up process and I wanted to see what will be content of the pop-up window immediately.

All features enabled included BETA apps as well, but I do not know what does it means but it is enabled 😄


Thanks for everyone who wrote even one word in this topic!

Report to moderator  Logged

**haertig**

Newbie

Posts: 2

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #26 on: January 27, 2018, 10:01:19 pm »

I had no problem reprogramming the stock FFT application module with the TDS3ENG firmware - it took the first time and opened up everything as touted.

I used a Flashcat programmer from embeddedcomputers.com. Note that whatever programmer you use, it must provide pull ups on the SDA & SCL lines to program an I2C module. I bought one of their standard narrow SOIC8 I2C adapters which has the pull ups installed, then installed a 4 pin header in the holes conveniently provided which parallel the socket connections. I connected to the chip in the FFT application module using a nice Pomona test clip that I bought on e-bay and connected it back to the programmer with some standard FxF header jumpers, arranging them appropriately so things were connected to the right places.


Total cost about \$50. You could do cheaper by buying the bare programmer and using a chinesisium test clip and making the appropriate jumper including pull ups.

Gray

Report to moderator  Logged **mcguire**

Contributor

Posts: 8

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #27 on: February 28, 2018, 08:40:30 pm »

The eBay prices on TDS3FFT and TDS3TRG modules seems to be rising, presumably due to people hunting them down to reprogram them. Has anyone come up with a way to enable these additional features without using one of the plugin key modules?

I ended up thinking about soldering an EEPROM to the board using fly-wires or something...has anyone looked into that?

-Dave

Report to moderator  Logged **Dogsled**

Newbie

Posts: 2

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #28 on: February 28, 2018, 11:13:57 pm »


Indeed, Was looking for some of those blank plastic modules in the later TDS series. Could glue in an EPROM, possibly some connectors?

Anyone have a few of those blanks or know where to get? They are not listed as a part in the service manual that I can see.

Report to moderator  Logged **mcguire**

Contributor

Posts: 8

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #29 on: March 02, 2018, 10:17:32 pm »

I have a pair of the blanks in TDS3012 in my lab. I've put my CAD guy on the task of generating a 3D-printable model of it. Some of the features are a bit small, but it should be doable. I'll let you know how it goes.


-Dave

Report to moderator  Logged **Someone**

Super Contributor



Posts: 2480

Country:  **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks

Reply

Quote

« Reply #30 on: March 03, 2018, 01:10:20 am »

The original details about this "hack" go way back to 2009 but only reached prominence when DCMA takedowns were being used to kill off the promotion of it. From the information available on google its easy to assemble all the details needed to build something:

<https://hackaday.com/2014/07/28/cloning-tektronix-application-modules/>

<http://daid.eu/~daid/dmca/>

[https://oshpark.com/shared\\_projects/pE9Ff8iu](https://oshpark.com/shared_projects/pE9Ff8iu)

The first I saw of this was:

<http://herzogmuehlweg.de/TDS3UAM/TDS3UAM.html>



discussed:  
<http://forum.tsebi.com/viewtopic.php?t=113>

A PCB of the right dimensions with a little packing/spacer is all thats needed to do this, no need to go crazy with 3D printed cases.

[Report to moderator](#) [Logged](#)

**mcguire**

Contributor

Posts: 8

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #31 on:** March 03, 2018, 02:54:36 am »

I have some of those PCBs on the way thanks to a PM a few days ago. I hadn't intended to "go crazy" with 3D printed parts, but I would like to clone the module in an enclosure, and I have a CAD guy on staff who has some idle time, and several printers sitting here. It costs me nothing, and it will then be sitting on Thingiverse.

EDIT: Sorry man, I didn't mean for that to sound snippy. I was running on lack of sleep. My CAD guy will look into it on Monday, and if he deems it practical, I'll put the model on Thingiverse when it's done, just in case people want to do it that way.

-Dave

« *Last Edit:* March 03, 2018, 05:33:04 pm by mcguire »

[Report to moderator](#) [Logged](#)

**Sarcarean**

Contributor

Posts: 28

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #32 on:** April 26, 2018, 06:31:27 am »

**Quote from: haertig on January 27, 2018, 10:01:19 pm**

I had no problem reprogramming the stock FFT application module with the TDS3ENG firmware - it took the first time and opened up everything as touted.

I used a Flashcat programmer from embeddedcomputers.com. Note that whatever programmer you use, it must provide pull ups on the SDA & SCL lines to program an I2C module. I bought one of their standard narrow SOIC8 I2C adapters which has the pull ups installed, then installed a 4 pin header in the holes conveniently provided which parallel the socket connections. I connected to the chip in the FFT application module using a nice Pomona test clip that I bought on e-bay and connected it back to the programmer with some standard FxF header jumpers, arranging them appropriately so things were connected to the right places.

Total cost about \$50. You could do cheaper by buying the bare programmer and using a chinesisium test clip and making the appropriate jumper including pull ups.

Gray

Hi Gray! Thanks for supporting FlashcatUSB, but small correction the website is Embeddedcomputers.net :-)

[Report to moderator](#) [Logged](#)

**volvo\_nut\_v70**

Regular Contributor



Posts: 82

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM and TDS3ENG**

[Reply](#) [Quote](#) [Modify](#) [Remove](#)

« **Reply #33 on:** August 08, 2019, 02:29:03 pm »

An refresh to the original document/instructions in post 1 and inclusion of Gray's TDS3ENG post. Many thanks to gamalot and haertig for your kind assistance!!



TDS3UAM-TDS3HEX.pdf (2262.92 kB - downloaded 191 times.)

[Report to moderator](#) [216.13.179.106](#)

**Ordinaryman1971**

Frequent Contributor



Posts: 262

Country:

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #34 on:** October 14, 2019, 07:35:08 am »

Did anybody made few of those boards and have some spares? I need two for my scopes.

[Report to moderator](#) [Logged](#)



**perdrix**

Frequent Contributor



Posts: 284



**analogRF**

Frequent Contributor



Posts: 464

Country:



**analogRF**

Frequent Contributor



Posts: 464

Country:



**MarkL**

Supporter



Posts: 1658

Country:



**MarkL**

Supporter



Posts: 1658

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #35 on: March 03, 2020, 11:03:14 am »

This is just a stupid question - how to open the existing TDS3FFT to reprogram the ROM?

Don't want to destroy it in the process of opening it ...

David

Report to moderator Logged

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #36 on: March 03, 2020, 04:23:05 pm »

**Quote from: perdrix on March 03, 2020, 11:03:14 am**

This is just a stupid question - how to open the existing TDS3FFT to reprogram the ROM?

Don't want to destroy it in the process of opening it ...

David

just have to pry it open with a knife or cutter carefully. it has four pins on the corners that fit into four holes. I broke them the first time but easily can be glued back when you are done.

Report to moderator Logged

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #37 on: March 03, 2020, 04:26:43 pm »

a silly question, if I enable all the options on my tds3000b , is there gonna be a problem if I decide to sell it? like on ebay or something?

I mean can someone post the picture of the screen that shows all the options enabled? I know someone is selling BW hacked TDS3000 on ebay but not the options so that got me curious

Report to moderator Logged

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #38 on: March 03, 2020, 06:01:03 pm »

**Quote from: perdrix on March 03, 2020, 11:03:14 am**

This is just a stupid question - how to open the existing TDS3FFT to reprogram the ROM?

Don't want to destroy it in the process of opening it ...

David

Why open it? You don't need to open it. It's an I2C EEPROM with write already enabled.

I was able to write to my TDS3FFT module without breaking it open. I used the clips shown in the PDF posted by volvo\_nut\_v70 to (gently!) grab onto the SIM contacts.

Those clips are Tektronix 206-0364-01. You can get them for about \$1 each if you don't explicitly search for the part number. "tektronix test clips" will find them, but cheaper. (I guess the seller(s) couldn't be bothered to research the part number.)

Report to moderator Logged

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #39 on: March 03, 2020, 06:10:39 pm »

**Quote from: analogRF on March 03, 2020, 04:26:43 pm**

a silly question, if I enable all the options on my tds3000b , is there gonna be a problem if I decide to sell it? like on ebay or something?

I mean can someone post the picture of the screen that shows all the options enabled? I know someone is selling BW

hacked TDS3000  
on ebay but not the options so that got me curious

I wouldn't show it. At this point it's a very well known hack, but it was made famous by Tektronix's DMCA take down order served on hack-a-day in 2014. So, they may still have some lingering sensitivity to it, especially since they're still selling TDS3000 series (after 20+ years!).

Report to moderator  Logged

### analogRF

Frequent Contributor



Posts: 464

Country: 



### Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM

Say Thanks

Reply

Quote

« Reply #40 on: March 04, 2020, 04:06:48 pm »

**Quote from: MarkL on March 03, 2020, 06:10:39 pm**

**Quote from: analogRF on March 03, 2020, 04:26:43 pm**

a silly question, if I enable all the options on my tds3000b , is there gonna be a problem if I decide to sell it? like on ebay or something?

I mean can someone post the picture of the screen that shows all the options enabled? I know someone is selling BW hacked TDS3000 on ebay but not the options so that got me curious

I wouldn't show it. At this point it's a very well known hack, but it was made famous by Tektronix's DMCA take down order served on hack-a-day in 2014. So, they may still have some lingering sensitivity to it, especially since they're still selling TDS3000 series (after 20+ years!).

thanks for pointing to that take down order. I didn't know about that. But I suppose that article was showing (teaching) how to hack the scopes.

Why selling an scope that has all its software options enabled should be a copyright violation issue? If I am not mistaken, three options are already enabled by the latest firmware anyways.

As an example these scopes do not officially have any bandwidth upgrade kit/option offered by tektronix but there are people selling BW upgraded TDS3000 on eBay.

Another example are Keysight scopes selling on ebay that have ALL their options enabled by using the methods available on this forum. I dont think keysight have gone after those people.


Report to moderator  Logged

### james\_s

Super Contributor



Posts: 12251

Country: 



### Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM

Say Thanks

Reply

Quote

« Reply #41 on: March 05, 2020, 12:33:16 am »

**Quote from: BenKenobi on October 05, 2017, 02:55:00 pm**

I'm planning 'this' the last posts seem to indicate that the existing modules can be 're coded' i.e. a TD3FFT can be reprogrammed so I take it that it's an EEPROM ?

If the module itself can be reprogrammed what's the best method to connect the pins of the module to say an Arduino - the Arduino bit I can handle, the reprogramming too but the other stuff needs some input from those that are more experienced. I don't want to dismantle the app module if I don't need to.

Yes, it's just a standard serial eeprom. I opened up a module that came with mine, put a test clip on the IC and then flashed it with my TL866. There's a screw hidden under the label which you can peel back if you're careful.


Report to moderator  Logged

### MarkL

Supporter



Posts: 1658

Country: 



### Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM

Say Thanks

Reply

Quote

« Reply #42 on: March 05, 2020, 03:21:18 pm »

**Quote from: analogRF on March 04, 2020, 04:06:48 pm**

**Quote from: MarkL on March 03, 2020, 06:10:39 pm**

**Quote from: analogRF on March 03, 2020, 04:26:43 pm**

a silly question, if I enable all the options on my tds3000b , is there gonna be a problem if I decide to sell it? like on ebay or something?

I mean can someone post the picture of the screen that shows all the options enabled? I know someone is selling BW hacked TDS3000 on ebay but not the options so that got me curious

I wouldn't show it. At this point it's a very well known hack, but it was made famous by Tektronix's DMCA take down order served on hack-a-day in 2014. So, they may still have some lingering sensitivity to it, especially since they're still selling TDS3000 series (after 20+ years!).

thanks for pointing to that take down order. I didn't know about that. But I suppose that article was showing (teaching) how to hack the scopes.

Why selling an scope that has all its software options enabled should be a copyright violation issue?

If I am not mistaken, three options are already enabled by the latest firmware anyways.

As an example these scopes do not officially have any bandwidth upgrade kit/option offered by tektronix but there are people selling BW upgraded TDS3000 on eBay.

Another example are Keysight scopes selling on ebay that have ALL their options enabled by using the methods available on this forum. I dont think keysight have gone after those people.

Well, they haven't gone after anyone that we've heard about.

IIRC, Tektronix's main claim was that the information on the license module was copyrighted.

Yes, there are some options now enabled in the base software that used to require a license module, but that's not really the issue with enabling unauthorized features and selling the unit for a premium.

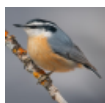
I'm not a lawyer. I'm just saying if it were me, I wouldn't be advertising that I'm selling something that I didn't pay for, which Tektronix may interpret as stealing. I would sell it with any capabilities I originally purchased and then let whoever bought it (re-)enable whatever hacked features they want.

[Report to moderator](#)

The following users thanked this post: analogRF

**angrybird**

Regular Contributor



Posts: 142

Country:

I have a particular fascination with birds.



**MarkL**

Supporter



Posts: 1658

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#)

[Reply](#)

[Quote](#)

« **Reply #43 on:** March 05, 2020, 03:21:28 pm »

Correct me if I'm wrong, but didn't the final firmware update for the TDS3000 unlock all the software features for free?

[Report to moderator](#)

THE CAKE IS A LIE AND THESE NUTHATCH ARE WAY TOO DISTRACTING

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#)

[Reply](#)

[Quote](#)

« **Reply #44 on:** March 05, 2020, 03:50:51 pm »

**Quote from: angrybird on March 05, 2020, 03:21:28 pm**

Correct me if I'm wrong, but didn't the final firmware update for the TDS3000 unlock all the software features for free?

That would be version 3.41 for the TDS3000, released in 2007. No, it did not enable all features.

3.41 only enabled FFT and Advanced Trigger. It also added video line triggering, which was one feature that came with the Extended Video module.

[Report to moderator](#)

**benj38**

Regular Contributor



Posts: 60

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#)

[Reply](#)

[Quote](#)

« **Reply #45 on:** March 22, 2020, 01:01:49 pm »

This thread started more than 7 years ago, but it looks like there is a tradition of briefly reviving it every once in a while, so here are my two cents.

Programming the EEPROM as a TDS3ENG, I get a warning on startup saying: "Incompatible Firmware... An application module has been detected which requires an instrument firmware upgrade....Push MENU OFF to continue using the instrument without the application module enabled." However, contrary to the warning, pushing "MENU OFF" does not seem to disable the application module and all the new functions are available.

I see no mention of this warning in previous messages. I have tried it on both a TDS3052 and a TDS3034B, and both with the 3.39 and the 3.41 firmware (which is the latest firmware), with the same result in all cases. I thus suspect that this warning is something everybody using the TDS3ENG gets on every startup, which is a bit annoying. If anybody has a different experience, please let me know.

**benj38**  
 Regular Contributor  
  
 Posts: 60  
 Country:

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #46 on: March 22, 2020, 02:03:25 pm »

One more note regarding the different application modules for the TDS3000x series.

As far as I know, Tektronix only ever sold the following EEPROM application modules: TDS3TRG, TDS3FFT, TDS3VID, TDS3TMT, TDS3AAM, TDS3LIM.

As mentioned earlier in this thread, TDS3TRG and TDS3FFT are enabled by default with the later firmwares. Thus, together with a home-made TDS3AUM EEPROM module (described in the OP), one gets all the modules ever sold by Tektronix.

The TDS3ENG engineering DIY module mentioned in this thread includes in addition TDS3BTA, and TDS3SDI which do not correspond to any commercially available EEPROM module ever sold. As far as I can tell, these are debugging/repair aids used internally by Tek.

The TDS3BTA stands for "Beta functions", and nobody seems to know what these are, if any. If anyone knows more, please share!

As for the TDS3SDI, there was a module sold by Tek. with this name, but it is not an EEPROM you plug into the slots at the front right of the instrument. Rather, it is a big hardware module one plugs in the back (like the Ethernet/GPIB/RS-232/VGA communication modules --- see attached image). According to its manual it: "...converts serial digital video to analog video composite and component (RGB or YPbPr) signals connected to the oscilloscope inputs". Like most modules that plug in the back of the scope, this module also adds items to the instrument's menus. The TDS3ENG EEPROM adds the same items to the menus (e.g., QuickMenu->Video->SUBMENU: ITU-R 601), however, without the hardware of the real TDS3SDI module, this seems of very little use.

In short, if you have the latest firmware, I see no advantage of the TDS3ENG module over the TDS3UAM module. In fact, the TDS3ENG has the disadvantage of showing me an annoying warning on every startup, which the TDS3UAM does not.

Thus, my recommendation at this point (unless new information comes in) is to forget about the TDS3ENG EEPROM, and stick to the TDS3AUM.



TDS3SDI.jpg (40.5 kB, 725x440 - viewed 30 times.)

**MarkL**  
 Supporter  
  
 Posts: 1658  
 Country:

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

Say Thanks Reply Quote

« Reply #47 on: March 22, 2020, 05:11:15 pm »

**Quote from: benj38 on March 22, 2020, 01:01:49 pm**

...  
 Programming the EEPROM as a TDS3ENG, I get a warning on startup saying: "Incompatible Firmware... An application

module has been detected which requires an instrument firmware upgrade....Push MENU OFF to continue using the instrument without the application module enabled."  
However, contrary to the warning, pushing "MENU OFF" does not seem to disable the application module and all the new functions are available.

I see no mention of this warning in previous messages. I have tried it on both a TDS3052 and a TDS3034B, and both with the 3.39 and the 3.41 firmware (which is the latest firmware), with the same result in all cases. I thus suspect that this warning is something everybody using the TDS3ENG gets on every startup, which is a bit annoying. If anybody has a different experience, please let me know.

I am running 3.41 on a TDS3054 with a module reprogrammed as TDS3ENG, and I am not getting any warnings. On power-up it does a pop-up of all the options enabled, and then proceeds back to where it was when powered off after 10 seconds (or sooner if MENU OFF pressed).

**Quote from: benj38 on March 22, 2020, 02:03:25 pm**

...

Thus, my recommendation at this point (unless new information comes in) is to forget about the TDS3ENG EEPROM, and stick to the TDS3AUM.

The only difference I've noticed is that the WaveAlert feature becomes visible on the plain (non B or C) model with TDS3ENG. WaveAlert was officially introduced starting with the B version. It seems to work ok on the plain version. It's been several years since I experimented with these modules, but I think when I tried TDS3AUM it was not there. Since you have a TDS3AUM, you could say for sure.

[Report to moderator](#)  [Logged](#)

### analogRF

Frequent Contributor



Posts: 464

Country: 



### **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« **Reply #48 on:** March 22, 2020, 05:17:24 pm »

[Say Thanks](#)

[Reply](#)

[Quote](#)

**Quote from: benj38 on March 22, 2020, 02:03:25 pm**

One more note regarding the different application modules for the TDS3000x series.

As far as I know, Tektronix only ever sold the following EEPROM application modules:  
TDS3TRG, TDS3FFT, TDS3VID, TDS3TMT, TDS3AAM, TDS3LIM.

As mentioned earlier in this thread, TDS3TRG and TDS3FFT are enabled by default with the later firmwares. Thus, together with a home-made TDS3AUM EEPROM module (described in the OP), one gets all the modules ever sold by Tektronix.

The TDS3ENG engineering DIY module mentioned in this thread includes in addition TDS3BTA, and TDS3SDI which do not correspond to any commercially available EEPROM module ever sold. As far as I can tell, these are debugging/repair aids used internally by Tek.

The TDS3BTA stands for "Beta functions", and nobody seems to know what these are, if any. If anyone knows more, please share!

As for the TDS3SDI, there was a module sold by Tek. with this name, but it is not an EEPROM you plug into the slots at the front right of the instrument. Rather, it is a big hardware module one plugs in the back (like the Ethernet/GPIB/RS-232/VGA communication modules --- see attached image). According to its manual it: "...converts serial digital video to analog video composite and component (RGB or YPbPr) signals connected to the oscilloscope inputs". Like most modules that plug in the back of the scope, this module also adds items to the instrument's menus. The TDS3ENG EEPROM adds the same items to the menus (e.g., QuickMenu->Video->SUBMENU: ITU-R 601), however, without the hardware of the real TDS3SDI module, this seems of very little use.

In short, if you have the latest firmware, I see no advantage of the TDS3ENG module over the TDS3UAM module. In fact, the TDS3ENG has the disadvantage of showing me an annoying warning on every startup, which the TDS3UAM does not.

Thus, my recommendation at this point (unless new information comes in) is to forget about the TDS3ENG EEPROM, and stick to the TDS3AUM.

I am on 3.41 and with TDS3ENG and I am not getting any warning either.

However, I agree with you about the totally useless options that come with TDS3ENG and TDS3AUM is probably a better choice. Not sure about that Wavealert that MarkL is talking about. I do have it but does it also appear with TDS3AUM?

EDIT: disregard my comment about Wavealert thing. My scope is 3054B and I think they do have Wavealert by default anyway.

« *Last Edit: March 22, 2020, 05:21:51 pm by analogRF* »


[Report to moderator](#)  [Logged](#)

### benj38

Regular Contributor



Posts: 60

Country: 

### **Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« **Reply #49 on:** March 23, 2020, 01:40:37 pm »

[Say Thanks](#)

[Reply](#)

[Quote](#)

**Quote from: MarkL on March 22, 2020, 05:11:15 pm**



The only difference I've noticed is that the WaveAlert feature becomes visible on the plain (non B or C) model with TDS3ENG. WaveAlert was officially introduced starting with the B version. It seems to work ok on the plain version. It's been several years since I experimented with these modules, but I think when I tried TDS3AUM it was not there. Since you have a TDS3AUM, you could say for sure.

The TDS3052 with TDS3AUM has no WaveAlert. I will find some time later this week to program it with the TDS3ENG to see if it gains the WaveAlert, and report back.

Report to moderator Logged

**benj38**

Regular Contributor



Posts: 60

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

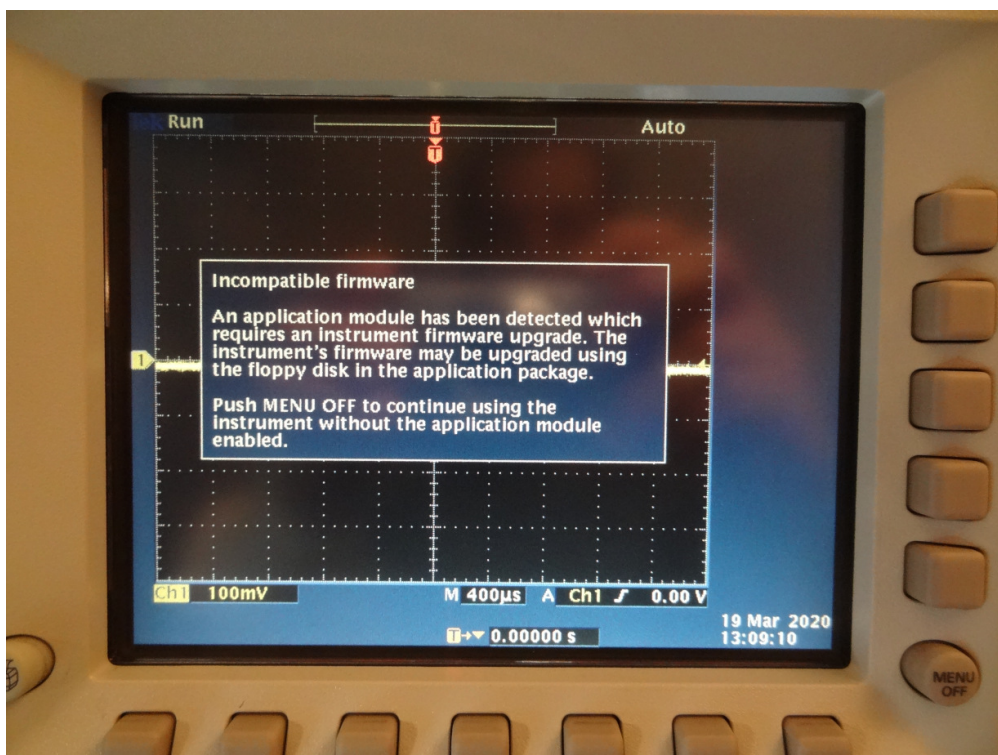
« **Reply #50 on:** March 23, 2020, 01:49:18 pm »

Say Thanks Reply Quote

@MarkL, @analogRF, thanks for the info. It is indeed quite interesting that you guys do not get the warning message I get with TDS3ENG, especially since I see this on two totally different scopes (TDS3052, TDS3034B), and two different firmware versions. I have no explanation why we have such different results. 🤔

Perhaps a reset of the scope after installing the TDS3ENG module will remove this warning? I will try it later this week when I have time to program a module for TDS3ENG.

BTW, attached is an image of the warning I get.



DSC001542.JPG (325.15 kB, 1224x918 - viewed 87 times.)

Report to moderator Logged

**MarkL**

Supporter



Posts: 1658

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« **Reply #51 on:** March 23, 2020, 06:32:16 pm »

Say Thanks Reply Quote

My guess is that the contents of your TDS3ENG module is not quite right. You might want to go back and double-check against the TDS3UAM-TDS3HEX.pdf document that was posted to this thread.

Report to moderator Logged

**benj38**

Regular Contributor



Posts: 60

Country:



**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

« **Reply #52 on:** March 27, 2020, 05:18:25 pm »

Say Thanks Reply Quote

@MarkL, @analogRF thanks for letting me know that the warning I get is not the expected behavior.

**Quote from: MarkL on March 23, 2020, 06:32:16 pm**

My guess is that the contents of your TDS3ENG module is not quite right. You might want to go back and double-check against the TDS3UAM-TDS3HEX.pdf document that was posted to this thread.

My module was indeed not quite right. The problem was that the PDF (as well as the tds3eng.hex file posted to this thread) only specifies the values of the first 256 Bytes, and I filled the remaining bytes above them with FF instead of 00.

I was lead to do that by extrapolating from the following sentence in the PDF:"...the second writes the entire 256 byte filling in FF in all unused locations, just in case you made an Oops and forgot the erase".

It is interesting that this makes no difference for the TDS3UAM, but causes the warning message with the TDS3ENG.

Thus, to prevent anybody else from making the same mistake, I suggest to further clarify the instructions in the TDS3UAM-TDS3HEX.pdf as follows:

1. Wherever it says erase it means fill with 00.
2. The sentence "Only difference is that the first block relies on you having erased the EEPROM, the second writes the entire 256 byte filling in FF in all unused locations, just in case you made an Oops and forgot the erase." should be ignored.

Indeed, even when using the second block, one has to also fill all bytes above the first 256 with 00. For example, by first erasing to all 00.

My thanks to the author of TDS3UAM-TDS3HEX.pdf for this amazing document!

[Report to moderator](#) Logged

The following users thanked this post: hoanguong

**benj38**  
Regular Contributor

Posts: 60  
Country:

**Re: Tektronix TDS3000 Oscilloscope Modules TDS3UAM**

[Say Thanks](#) [Reply](#) [Quote](#)

« **Reply #53 on:** March 27, 2020, 05:26:03 pm »

**Quote from: MarkL on March 22, 2020, 05:11:15 pm**

The only difference I've noticed is that the WaveAlert feature becomes visible on the plain (non B or C) model with TDS3ENG. WaveAlert was officially introduced starting with the B version. It seems to work ok on the plain version. It's been several years since I experimented with these modules, but I think when I tried TDS3AUM it was not there. Since you have a TDS3AUM, you could say for sure.

I can confirm that the TDS3ENG adds WaveAlert to plain TDS3000 scopes (non B or C), whereas TDS3AUM does not.

I would thus conclude, in agreement with @MarkL, that the TDS3ENG has an advantage over TDS3AUM for plain TDS3000 series scopes, but adds nothing of real value to TDS3000B series scopes.

[Report to moderator](#) Logged

The following users thanked this post: analogRF

Pages: 1 2 3 [All] [Go Up](#)

[REPLY](#) [UNNOTIFY](#) [MARK UNREAD](#) [SEND THIS TOPIC](#) [PRINT](#) [SEARCH](#)  
« previous next »

Share me



[EEVblog Electronics Community Forum](#) » [Electronics](#) » [Projects, Designs, and Technical Stuff](#) » [Tektronix TDS3000 Oscilloscope Modules TDS3UAM](#)

[LINK TO CALENDAR](#)

Jump to:

[Quick Reply](#)





## BUDGET MULTIMETERS !!

ANENG, UNI-T and more...



[EEVblog Main Site](#)

[EEVblog on Youtube](#)

[EEVblog on Twitter](#)

[EEVblog on Facebook](#)

[EEVblog on Library](#)

SMF 2.0.15 | SMF © 2017, Simple Machines  
Simple Audio Video Embedder  
SMFAds for Free Forums  
[XHTML](#) [RSS](#) [Mobile](#) [WAP2](#)