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 October 05, 2021, 02:29:55 pm

 This topic

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EEVblog Electronics Community Forum » Products » Test Equipment » Rohde & Schwarz FSEA 30




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Author

Topic: Rohde & Schwarz FSEA 30 (Read 31269 times)

volvo_nut_v70 and 2 Guests are viewing this topic.

Muxr
 Super Contributor



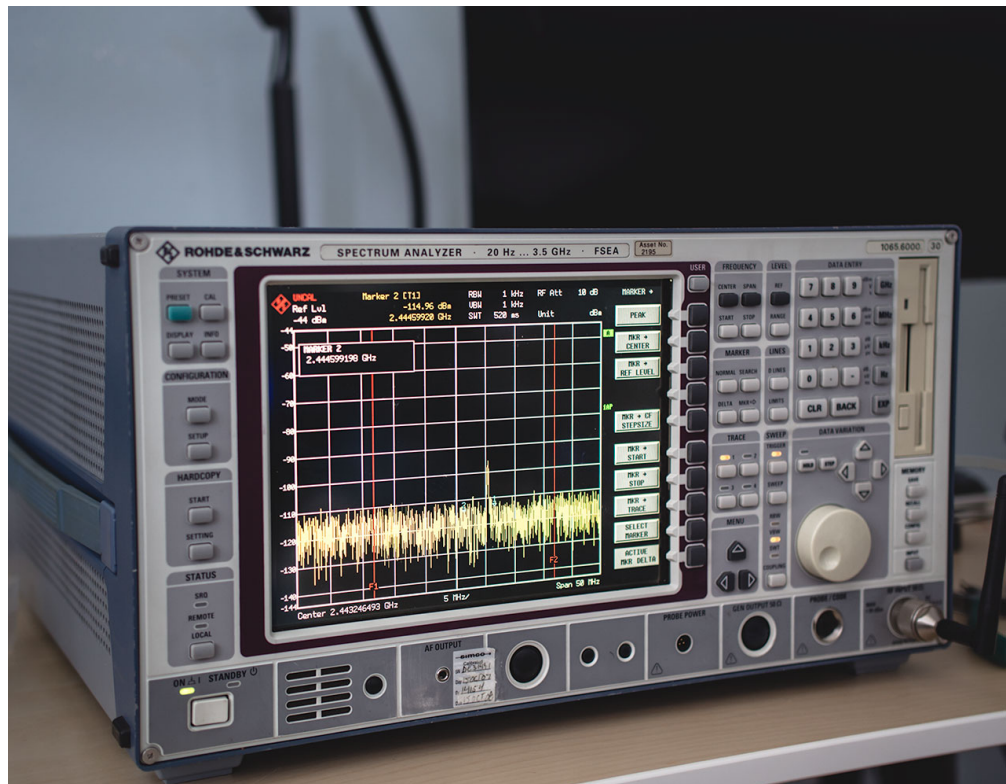
Posts: 1345
 Country:



Rohde & Schwarz FSEA 30
 « on: August 30, 2016, 05:04:01 pm »

Say Thanks Reply Quote

There is no thread for this Spectrum Analyser, so instead of derailing other generic SA threads I figure I start a dedicated one. Got mine a few weeks ago, and I have been pretty impressed with it so far. It's a sizeable beast, pretty heavy too.



I am currently in the process of rejuvenating it. Getting to the main PC board is no small task. It involves a number of steps and hard to reach cable jacks. You have to remove the power supply, loosen the bottom rail locking system, so that you can remove one of the RF cards to give you enough room to unplug the power supply. Then it's simply a matter of removing the metal shielding at the back of the instruments where PC boards are located.

This is what the PC board looks like:



Turns out I didn't have an IDE disk enclosure (could have swore I had one) or I can't find it so currently waiting on it to backup the disk and install the CF flash card replacement. I also have some SDRAM so I might upgrade that while I am at it as well. Will also be replacing the battery. Will update my progress..

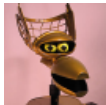
« Last Edit: August 30, 2016, 06:05:15 pm by Muxr »

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

The following users thanked this post: Wuerstchenhund, AF6LJ, Bernd

Wuerstchenhund

Super Contributor



Posts: 3079

Country:

Able to drop by occasionally only



Re: Rohde & Schwarz FSAE 30

« Reply #1 on: August 30, 2016, 05:53:11 pm »

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

Very nice instrument! Thanks for posting this

You know that you are now officially owner of one of the best SAs ever made?

Yours' is a later variant of the FSEx, recognizable on the front panel (older generations have a red-ish front, later ones the blue-ish grey). From the photos it seems you got a nice clean unit in good condition, and even the display seems to be bright.

Going for a CF Card replacement for the HDD is a good idea. If you feel adventurous you could replace the floppy drive with a CF reader so you have the card externally accessible. Which would also give you room to play with different OS setups (Windows NT 4 was an option which if I remember right included more measurements and was the OS required for the latest software update).

When you re-assemble it, could you take a few more pictures of the boards and the inside of the SA?

BTW: you might wanna re-check the thread title

« Last Edit: August 30, 2016, 06:21:28 pm by Wuerstchenhund »

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

The following users thanked this post: Muxr

Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #2 on: August 30, 2016, 06:07:11 pm »

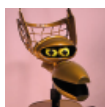
[Say Thanks](#) [Reply](#) [Quote](#)

@Wuerstchenhund thanks! Will be posting more photos as I progress with it. As for the title, I was concentrating so hard on spelling R&S that I messed up the model

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

Wuerstchenhund **Re: Rohde & Schwarz FSEA 30**

Super Contributor



Posts: 3079

Country:

Able to drop by occasionally only



« Reply #3 on: August 30, 2016, 06:25:24 pm »

Say Thanks

Reply

Quote

Quote from: Muxr on August 30, 2016, 06:07:11 pm

As for the title, I was concentrating so hard on spelling R&S that I messed up the model 🤔 😄

I thought at first this was about a R&S FSA 😊



R&S FSA.jpg (9.32 kB, 225x169 - viewed 14105 times.)

Report to moderator

The following users thanked this post: Muxr

nctnico

Super Contributor



Posts: 21504

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #4 on: August 30, 2016, 06:45:22 pm »

Say Thanks

Reply

Quote

May I suggest an mSata to IDE adapter for even better performance?

I know I bought a very nice SA myself recently but I must say I really like the FSEA and would have bought one if it had come up for a price within my budget (where is the drool emoticon?).

Report to moderator

There are small lies, big lies and then there is what is on the screen of your oscilloscope.

Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #5 on: August 30, 2016, 06:56:43 pm »

Say Thanks

Reply

Quote

Quote from: nctnico on August 30, 2016, 06:45:22 pm

May I suggest an mSata to IDE adapter for even better performance?
I know I bought a very nice SA myself recently but I must say I really like the FSEA and would have bought one if it had come up for a price within my budget (where is the drool emoticon?).

Might do the mSata -> IDE, we will see if it's compatible, that was my original idea. I picked up the CF adapter as well in case I run into issues.. (I have CF cards from my cameras). They are pretty quick too: 160MB/s. Will see which one is more compatible, I can benchmark them too.

I looked at PATA SSDs as well but I wasn't happy with the specs and the no name brands available.

I've been on the lookout for an SA for over a year, and when this one popped up I had to have it. Your Advantest R3477 is really nice too.. I would have had no qualms getting it if I ran into the same deal you got.

« Last Edit: August 30, 2016, 06:58:17 pm by Muxr »

Report to moderator

nctnico

Super Contributor



Re: Rohde & Schwarz FSEA 30

« Reply #6 on: August 30, 2016, 07:49:13 pm »

Say Thanks

Reply

Quote

The disadvantage of compact flash cards is that most tell the system they are removable media. Over the past years I did several IDE to CF conversions but I was unable to use a CF card in my Tektronix

Posts: 21504
Country:

TLA715 logic analyser. However an mSata to 44 pin IDE adapter (for a few dollars from Ebay) and an mSata card (bought locally!) did the trick.

Report to moderator

There are small lies, big lies and then there is what is on the screen of your oscilloscope.

The following users thanked this post: Muxr

Muxr
Super Contributor



Posts: 1345
Country:

Re: Rohde & Schwarz FSEA 30
« Reply #7 on: August 30, 2016, 08:12:55 pm »

Say Thanks Reply Quote

Quote from: nctnico on August 30, 2016, 07:49:13 pm

The disadvantage of compact flash cards is that most tell the system they are removable media. Over the past years I did several IDE to CF conversions but I was unable to use a CF card in my Tektronix TLA715 logic analyser. However an mSata to 44 pin IDE adapter (for a few dollars from Ebay) and an mSata card (bought locally!) did the trick.

Yup, that was my fear too.. after some research I found this Syba that could work, according to this review it presents the CF card as a fixed media so it might work:

https://www.amazon.com/review/R1VL7K96HDXOPG/ref=cm_cr_dp_title?ie=UTF8&ASIN=B0036DDXUM&channel=detail-glance&nodeID=172282&store=electronics

Will let you know.

Report to moderator

Wuerstchenhund
Super Contributor



Posts: 3079
Country:

Able to drop by occasionally only



Re: Rohde & Schwarz FSEA 30
« Reply #8 on: August 30, 2016, 09:06:35 pm »

Say Thanks Reply Quote

Quote from: nctnico on August 30, 2016, 07:49:13 pm

The disadvantage of compact flash cards is that most tell the system they are removable media. Over the past years I did several IDE to CF conversions but I was unable to use a CF card in my Tektronix TLA715 logic analyser. However an mSata to 44 pin IDE adapter (for a few dollars from Ebay) and an mSata card (bought locally!) did the trick.

That is mostly true for consumer cards (i.e. the ones used for photography) which don't support True IDE mode. Industrial cards usually do.

But a CF card identifying itself as a removable media device isn't much of a problem for DOS/Windows 3.11 or WindowsNT 4 anyways, as these platforms don't really support removable media other than floppies and tape.

Quote from: Muxr on August 30, 2016, 06:56:43 pm

I looked at PATA SSDs as well but I wasn't happy with the specs and the no name brands available.

Yeah, Kingspec is crap. But Transcend PSD330 is a solid PATA SSD, fast, and not overly expensive.

The problem with mSATA SSDs is that they generally tend to rely on a modern OS with TRIM support and don't do a lot GC on their own, which is what you want for a non-SSD aware OS.

« Last Edit: August 30, 2016, 09:10:34 pm by Wuerstchenhund »

Report to moderator

The following users thanked this post: Muxr

nctnico
Super Contributor



Posts: 21504
Country:

Re: Rohde & Schwarz FSEA 30
« Reply #9 on: August 30, 2016, 09:14:49 pm »

Say Thanks Reply Quote

In case of the TLA715 it was the BIOS causing problems. It just wouldn't boot from a removable media.

Report to moderator

There are small lies, big lies and then there is what is on the screen of your oscilloscope.

The following users thanked this post: AF6LJ

Muxr
Super Contributor



Re: Rohde & Schwarz FSEA 30
« Reply #10 on: September 01, 2016, 12:15:10 am »

Say Thanks Reply Quote

The IDE adapter arrived today. Backup and restore was a piece of cake. I used ddrescue (on OS X) but I assume procedure is similar on other OSs as well.



Posts: 1345

Country:



```

root@xf86 ~# sudo ddrescue -v /Volumes/external/rohde > /dev/disk7 /Volumes/external/rohde/full.bin
Password:
GNU ddrescue 1.21
About to copy an unknown number of Bytes from /dev/disk7 to /Volumes/external/rohde/full.bin.
Starting positions: infile = 0 B, outfile = 0 B
Copy block size: 128 sectors      Initial skip size: 128 sectors
Sector size: 512 Bytes

Press Ctrl-C to interrupt
 ipos: 4871 MB, non-trimmed:      0 B, current rate: 75776 B/s
 opos: 4871 MB, non-scraped:     0 B, average rate: 6245 kB/s
non-tried: 0 B, errsized: 0 B, run time: 13m
rescued: 4871 MB, errors: 0, remaining time: n/a
percent rescued: 0.00% time since last successful read: 0s
Finished
/Volumes/external/rohde > |

```

```

/Volumes/external/rohde > sudo ddrescue -f /Volumes/external/rohde/full.bin /dev/disk3
GNU ddrescue 1.21
Press Ctrl-C to interrupt
 ipos: 4871 MB, non-trimmed:      0 B, current rate: 2041 kB/s
 opos: 4871 MB, non-scraped:     0 B, average rate: 8078 kB/s
non-tried: 0 B, errsized: 0 B, run time: 10m 3s
rescued: 4871 MB, errors: 0, remaining time: n/a
percent rescued: 100.00% time since last successful read: 0s
Finished
/Volumes/external/rohde >

```

I have also upgraded the RAM.. put it together, it booted without issues:



The speed difference isn't that noticeable, which is understandable, there is much more to the boot sequence than loading the OS of the disk, like onboarding all the component boards. The original disk was 4.87 GB but the Raw files on the disk only take 67 megabytes. The entire disk image compressed is only about 20 MB.

However I am glad I did the upgrade since I didn't like the sound and whine the original hard drive was making. And at the very least I now I have a backup.

Waiting on the replacement battery to arrive to continue this little project.



« Last Edit: September 01, 2016, 12:25:44 am by Muxr »

Report to moderator  Logged

The following users thanked this post: Wuerstchenhund, AF6LJ, philipz

 **Muxr**

Super Contributor



Posts: 1345

Country: 



 **Re: Rohde & Schwarz FSEA 30**

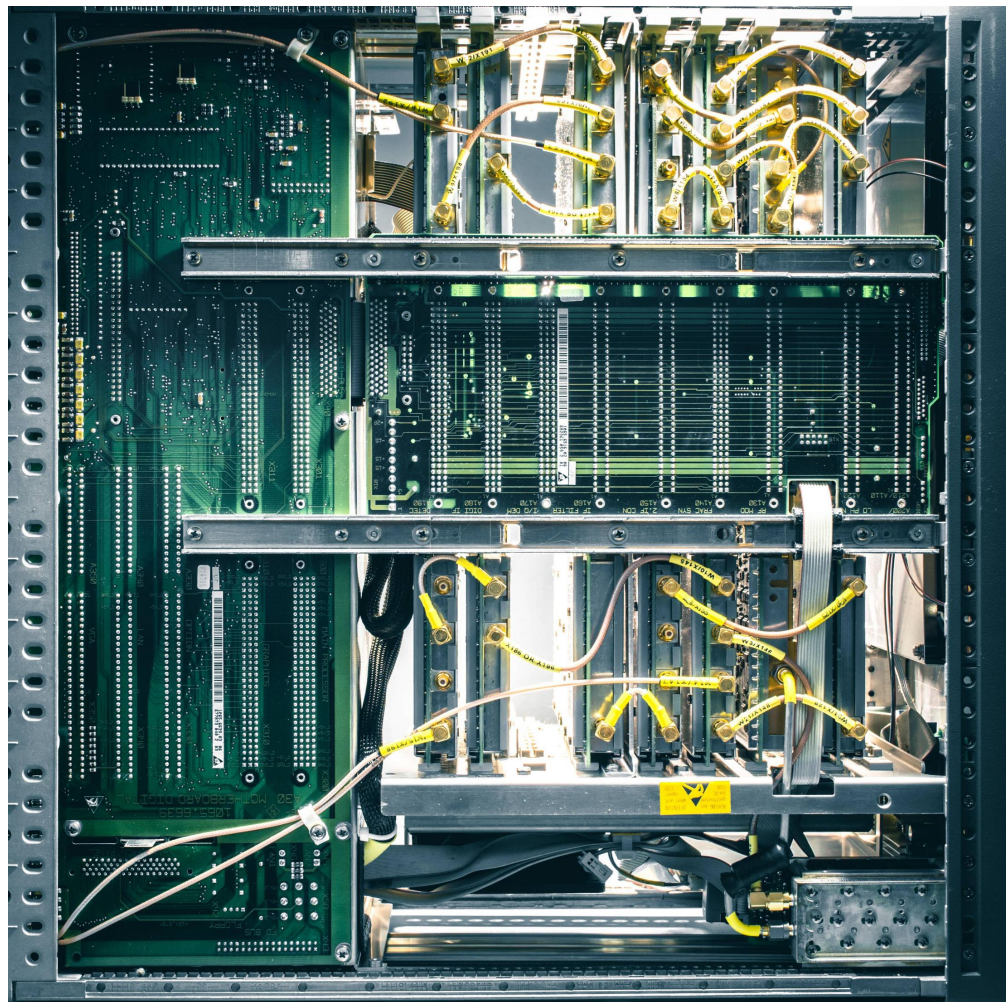
« Reply #11 on: September 03, 2016, 10:48:04 pm »

Say Thanks

Reply

Quote

Battery has arrived.. time to take the PC board out again. Bottom of the instrument:



Report to moderator Logged

The following users thanked this post: Wuerstchenhund, AF6LJ

Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #12 on: September 11, 2016, 11:48:31 pm »

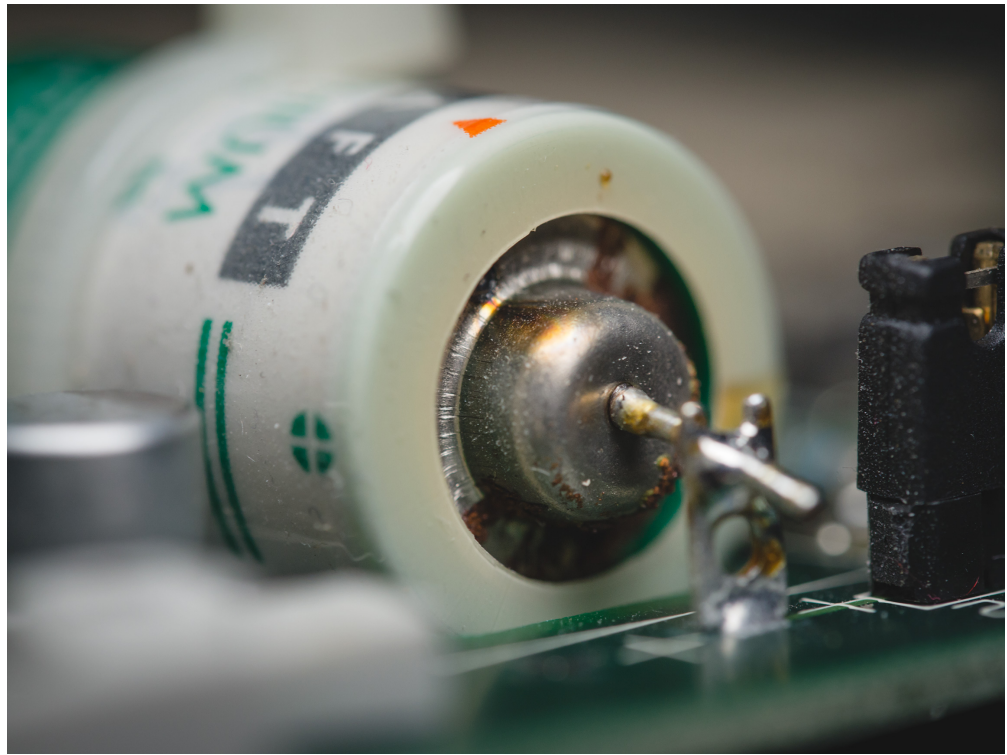
Say Thanks

Reply

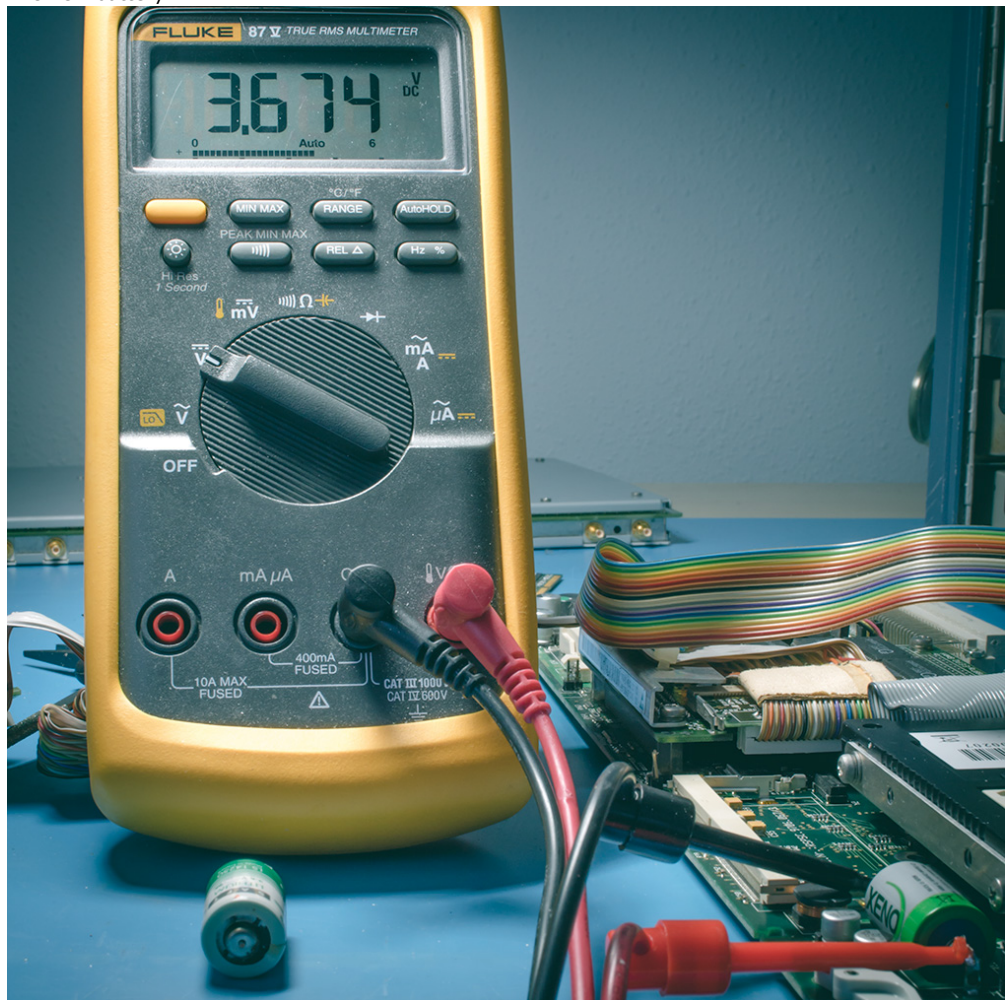
Quote

The original battery I ordered couldn't be soldered onto. I know that usually the batteries are difficult to solder on.. but I've had good luck with some by sanding the battery contacts down a bit and using ample amounts of flux. Not this time though.. I've tried 3 different kinds of flux with no luck. So I had to wait on a battery with welded leads.

Corrosion on the original battery:



The new battery:





edit: I've also added a floppy -> USB conversion drive.



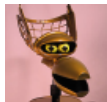
« Last Edit: September 20, 2016, 11:15:02 pm by Muxr »

Report to moderator Logged

The following users thanked this post: Wuerstchenhund, AF6LJ

Wuerstchenhund

Super Contributor



Posts: 3079

Country:

Able to drop by occasionally only

Re: Rohde & Schwarz FSEA 30

« Reply #13 on: September 13, 2016, 12:29:47 pm »

Say Thanks

Reply

Quote

Quote from: Muxr on September 11, 2016, 11:48:31 pm

The original battery I ordered couldn't be soldered onto. I know that usually the batteries are difficult to solder on.. but I've had good luck with some by sanding the battery contacts down a bit and using ample amounts of flux. Not this time though.. I've tried 3 different kinds of flux with no luck. So I had to wait on a battery with welded leads.

Why didn't you go for a battery holder instead? You could then place it somewhere where it is easier to reach.

Report to moderator Logged



Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #14 on: September 13, 2016, 02:00:11 pm »

Say Thanks

Reply

Quote

Quote from: Wuerstchenhund on September 13, 2016, 12:29:47 pm

Quote from: Muxr on September 11, 2016, 11:48:31 pm

The original battery I ordered couldn't be soldered onto. I know that usually the batteries are difficult to solder on.. but I've had good luck with some by sanding the battery contacts down a bit and using ample amounts of flux. Not this time though.. I've tried 3 different kinds of flux with no luck. So I had to wait on a battery with welded leads.

Why didn't you go for a battery holder instead? You could then place it somewhere where it is easier to reach.

I thought about it. It's pretty involved just getting to the board, once you get to the board it's easy, sliding it out and soldering this on. If I can get another 10-15 years out of this battery I'll be happy. Not keeping time isn't a huge handicap, I was more worried about a leaking old battery. 😊

Report to moderator Logged

CJay

Super Contributor



Posts: 3932

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #15 on: September 13, 2016, 02:18:21 pm »

Say Thanks

Reply

Quote

Same battery as used on countless generations of Macs and Power Macs, I think I even have a few along with the holders.

Thank you for posting this teardown, really nice to see all the high end test gear torn apart, for some strange reason people are somewhat reluctant to let me tear down their lab gear 😊

Report to moderator Logged

The following users thanked this post: Muxr

kazam

Regular Contributor



Posts: 70



Re: Rohde & Schwarz FSEA 30

« Reply #16 on: September 21, 2016, 07:16:05 pm »

Say Thanks

Reply

Quote

Hi,

Great thread and with perfect timing! Just took delivery of my R&S FSIQ3 with TG. It runs NT4 and came with the latest firmware, 4.40.3 installed.

I need to fix a few issues before I start using mine on a daily basis:

1. I will get the Transcend PATA SSD, any need to stick with the SLC models or is MLC just fine?
2. Where can I source that battery with the solder flaps?
3. Noise is a bit too much, any better fans out there?
4. What kind of memory does it take and is it worthwhile to upgrade?
5. It has a really non-standard looking connector for ethernet. Worth using? I have a GPIB adapter so I plan to just use that for now. Kind of prefer ethernet though, less problems.
6. Where can I get one of those USB floppy adaptor/converters?
7. My display is a bit dim, can I get a new one or upgrade the CCFL backlighting on the one already in there?

Thanks!

« Last Edit: September 21, 2016, 07:20:59 pm by kazam »

Report to moderator Logged

Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #17 on: September 21, 2016, 08:52:39 pm »

Say Thanks

Reply

Quote

Quote from: kazam on September 21, 2016, 07:16:05 pm

Hi,

Great thread and with perfect timing! Just took delivery of my R&S FSIQ3 with TG. It runs NT4 and came with the latest firmware, 4.40.3 installed.

I need to fix a few issues before I start using mine on a daily basis:

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5. It has a really non-standard looking connector for ethernet. Worth using? I have a GPIB adapter so I plan to just use that for now. Kind of prefer ethernet though, less problems.
6. Where can I get one of those USB floppy adaptor/converters?

7. My display is a bit dim, can I get a new one or upgrade the CCFL backlighting on the one already in there?

Thanks!

1.) I don't think it will make much difference, or at least it didn't on my model (non Windows NT version). The boot is heavily dependant on onlining all the "transputer" boards and the actual SSD upgrade shaves off very little from the boot process. I would pick whatever gives you the highest reliability confidence. SanDisk has had good track record with me so I just used the CF solution. This is the enclosure I used:

https://www.amazon.com/gp/product/B0036DDXUM/ref=oh_aui_detailpage_o04_s01?ie=UTF8&psc=1

caveat: the enclosure has that extra middle pin that won't fit into the cable.. I just cut mine off.

2.) This is the battery I used:

https://www.amazon.com/gp/product/B0060ASQDC/ref=oh_aui_detailpage_o08_s00?ie=UTF8&psc=1 notice the welded leads are of different style than in the product picture, but you can just bend them and spin them a bit and they fit perfectly. Just cut off the excess lead.

3.) Just air blowing my fans reduced the noise significantly. I was initially going to replace some of the fans.. but the noise is really not bad at all.

4.) Memory I used:

https://www.amazon.com/gp/product/B00006BT1Q/ref=oh_aui_detailpage_o05_s00?ie=UTF8&psc=1 standard 144 pin SoDIMM Only one of the slots were populated on my board. I got two and it's fully upgraded. 1Gb of RAM total. Didn't notice any difference in performance, so you might skip this step.

5.) I have the same ethernet card, it looks like the 10BASE2 which is obsolete. Might be possible to upgrade to a current ethernet card, but I haven't looked into that yet.

6.) USB floppy conversion drives can be ordered on ebay usually.. they are very clunky to use. I did mine just for the looks, although I did test it with a thumb drive and it does work.. although took a bit of figuring out.

Not sure about the screen, mine looks ok, but I would be curious as to what you find out.. keep us posted! And welcome to the RS SA club!

« Last Edit: September 21, 2016, 08:55:14 pm by Muxr »

Report to moderator Logged

richpike

Contributor

Posts: 8



Re: Rohde & Schwarz FSEA 30

« Reply #18 on: September 21, 2016, 09:07:09 pm »

Say Thanks Reply Quote

Nice piece of gear! And your photos are excellent - can I be nosy and ask what camera/lens you are using?

Report to moderator Logged

Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #19 on: September 21, 2016, 09:48:47 pm »

Say Thanks Reply Quote

Quote from: richpike on September 21, 2016, 09:07:09 pm

Nice piece of gear! And your photos are excellent - can I be nosy and ask what camera/lens you are using?

Thank you.. not at all.. I am a bit of a photography nut, thanks for noticing.

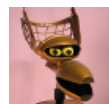
Most were shot with the Olympus e-m5 and the Olympus 25mm f/1.8 lens (love this lens, optically it is excellent and it has a very short focusing distance, so it can double up as a close up macro sort of lens). That battery close up was with the Olympus 60mm 2.8 Macro lens. And that last photo (showing the floppy -> USB conversion drive) was shot with my D600 and an old Nikkor 50mm f/1.2 lens.

Report to moderator Logged

The following users thanked this post: richpike

Wuerstchenhund

Super Contributor






Re: Rohde & Schwarz FSEA 30

« Reply #20 on: September 22, 2016, 05:27:01 am »

Say Thanks Reply Quote

Quote from: kazam on September 21, 2016, 07:16:05 pm

1. I will get the Transcend PATA SSD, any need to stick with the SLC models or is MLC just fine?

Posts: 3079
Country: 
Able to drop by occasionally only
 

MLC is fine. It will very likely outlive the instrument.

Quote



5. It has a really non-standard looking connector for ethernet.

It's not "non-standard", that's probably just an AUI connector (AUI is the interface between the network controller and the physical interface), what you need is a transceiver for the network standard you want (Thin Ethernet, Thick Ethernet, TP, Fiber).

Back then you could choose if you wanted AUI, Thin Ethernet (BNC) or TP (RJ45) as port.

« Last Edit: September 22, 2016, 05:29:42 am by Wuerstchenhund »

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

nctnico
Super Contributor
 

Posts: 21504
Country: 
  

 **Re: Rohde & Schwarz FSEA 30**



« Reply #21 on: September 22, 2016, 07:42:18 am »

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




You can find these transceivers on Ebay for peanuts. RJ45 is probably the best choice.

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

There are small lies, big lies and then there is what is on the screen of your oscilloscope.

psysc0rpi0n
Frequent Contributor
 



Posts: 299
Country: 
 

 **Re: Rohde & Schwarz FSEA 30**

« Reply #22 on: September 22, 2016, 09:01:40 am »

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

Quote from: Muxr on September 11, 2016, 11:48:31 pm

The original battery I ordered couldn't be soldered onto. I know that usually the batteries are difficult to solder on.. but I've had good luck with some by sanding the battery contacts down a bit and using ample amounts of flux. Not this time though.. I've tried 3 different kinds of flux with no luck. So I had to wait on a battery with welded leads.

Corrosion on the original battery:
...<removed to shorten the post>

The new battery:
...<removed to shorten the post>

...<removed to shorten the post>


edit: I've also added a floppy -> USB conversion drive.

...

Hi...

Recently I watched a couple of videos about welding batteries...
Wouldn't this be of any usage:

homemade battery tab spot welder



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

The following users thanked this post: Muxr

kazam

Regular Contributor



Posts: 70



Re: Rohde & Schwarz FSEA 30

« Reply #23 on: September 22, 2016, 01:02:36 pm »

Say Thanks

Reply

Quote

Quote from: nctnico on September 22, 2016, 07:42:18 am

You can find these transceivers on Ebay for peanuts. RJ45 is probably the best choice.

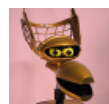
Reading the manual I came to the conclusion that the ethernet interface is only for file transfer and printing more or less. SCPI is not supported over TCP/IP.

In that case I don't really need ethernet at all so not worth to pursue. I have the dual GPIB interface option as well but apparently the second interface is for controlling external instruments from the SA. Not really useful for me.

Report to moderator Logged

Wuerstchenhund

Super Contributor



Posts: 3079

Country:

Able to drop by occasionally only



Re: Rohde & Schwarz FSEA 30

« Reply #24 on: September 22, 2016, 01:37:06 pm »

Say Thanks

Reply

Quote

Quote from: kazam on September 22, 2016, 01:02:36 pm

Quote from: nctnico on September 22, 2016, 07:42:18 am

You can find these transceivers on Ebay for peanuts. RJ45 is probably the best choice.

Reading the manual I came to the conclusion that the ethernet interface is only for file transfer and printing more or less. SCPI is not supported over TCP/IP.

Don't rely too much on the manual (especially if you have an older version), R&S often introduced new features in subsequent software updates which also resulted in a new revision of manuals.

My memory is to dizzy when it comes to those old SAs but I'd get the last software update for your instrument and check the revision history, you might well find that SCPI over TCP/IP has been implemented later on.

Quote

I have the dual GPIB interface option as well but apparently the second interface is for controlling external instruments from the SA. Not really useful for me.

The 2nd GPIB is a host port and, as you said, for controlling external instruments. Like for example using an external RF generator as tracking generator. Newer R&S SAs could also use non-R&S generators (like the HP/Agilent ESG Series) but I'm not sure if that was the case for the FSEx.

« Last Edit: September 22, 2016, 01:39:28 pm by Wuerstchenhund »

Report to moderator Logged

kazam

Regular Contributor



Posts: 70



Re: Rohde & Schwarz FSEA 30

« Reply #25 on: September 23, 2016, 11:45:15 am »

Say Thanks

Reply

Quote

Quote from: Wuerstchenhund on September 22, 2016, 01:37:06 pm

Don't rely too much on the manual (especially if you have an older version), R&S often introduced new features in subsequent software updates which also resulted in a new revision of manuals.

My memory is to dizzy when it comes to those old SAs but I'd get the last software update for your instrument and check the revision history, you might well find that SCPI over TCP/IP has been implemented later on.

I looked into this a bit more and it turns out it actually is supported through RSIB and a wrapper around the standard VXI interface running on the instrument itself:

https://cdn.rohde-schwarz.com/pws/dl_downloads/dl_application/application_notes/1ef47/1EF47_2E.pdf

However, this seems a bit too much and I will likely just stay with GPIB since I have that working just fine with Keysight VISA I/O libraries and Matlab with instrument control toolbox.

Report to moderator Logged

kazam

Regular Contributor

Re: Rohde & Schwarz FSEA 30

« Reply #26 on: October 07, 2016, 09:50:15 am »

Say Thanks

Reply

Quote



 Posts: 70





OK, I have my unit opened up and getting ready to do the HDD upgrade.

Yes, it's definitely involved to get to the CPU board. It seems that it would just be able to slide out with the PSU but strangely enough there's a screw securing it to the main frame from the INSIDE of the CPU module. How did they even get this mounted.

I have a lot of options so the RF board rack is fully occupied. See picture.

Any tips on how to proceed from here? In what order should I continue disassembly?

Thanks!

[Report to moderator](#)  Logged

kazam

 Regular Contributor



 Posts: 70



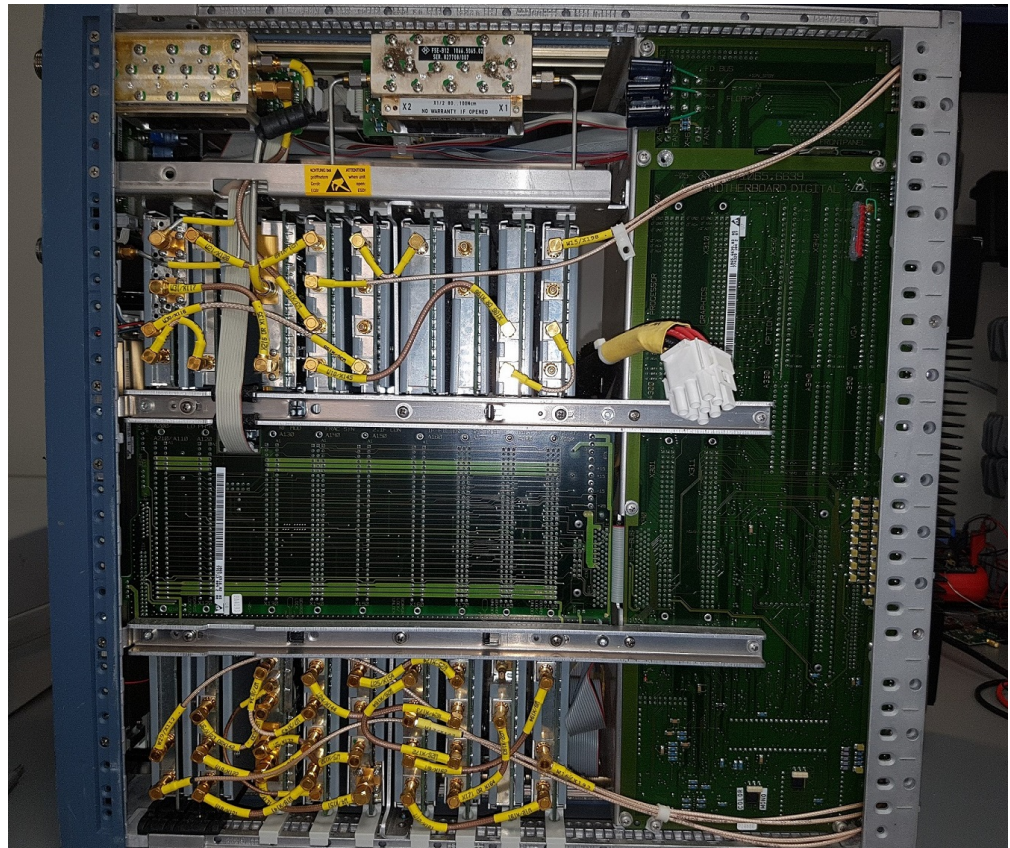




Re: Rohde & Schwarz FSEA 30

 « Reply #27 on: October 07, 2016, 09:58:40 am »

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

Picture!






 20161007_102615.jpg (862.51 kB, 1340x1134 - viewed 1432 times.)


[Report to moderator](#)  Logged

The following users thanked this post: Muxr


Muxr



 Super Contributor



 Posts: 1345

 Country: 


Re: Rohde & Schwarz FSEA 30

 « Reply #28 on: October 07, 2016, 05:06:35 pm »

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

Interesting, yours has additional electrolytic capacitors on the power supply side. Wonder if this was a factory bodge or someone did some extra work.

[Report to moderator](#)  Logged

kazam

 Regular Contributor



 Posts: 70


Re: Rohde & Schwarz FSEA 30

 « Reply #29 on: October 10, 2016, 08:52:56 am »

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



Muxr

Super Contributor



Posts: 1345

Country:



Yes, I noticed this. Looked a little strange to me as well.

This unit is really difficult to disassemble. Particularly mine which has the Ethernet and extra GPIB port option. Additional connectors that are hard to disconnect due to small lock nuts.

There really doesn't seem to be any way of removing the CPU board without fully removing the computer module from the chassis. How did they even get this together at the factory? Child workers with extremely long and thin arms?

Quote from: Muxr on October 07, 2016, 05:06:35 pm

Interesting, yours has additional electrolytic capacitors on the power supply side. Wonder if this was a factory bodge or someone did some extra work.

Report to moderator Logged

Re: Rohde & Schwarz FSEA 30

« **Reply #30 on:** October 10, 2016, 03:06:58 pm »

Say Thanks

Reply

Quote

Quote from: kazam on October 10, 2016, 08:52:56 am

Yes, I noticed this. Looked a little strange to me as well.

This unit is really difficult to disassemble. Particularly mine which has the Ethernet and extra GPIB port option. Additional connectors that are hard to disconnect due to small lock nuts.

There really doesn't seem to be any way of removing the CPU board without fully removing the computer module from the chassis. How did they even get this together at the factory? Child workers with extremely long and thin arms?

Quote from: Muxr on October 07, 2016, 05:06:35 pm

Interesting, yours has additional electrolytic capacitors on the power supply side. Wonder if this was a factory bodge or someone did some extra work.

The way I got to the PC board is following (should be similar for you):

- at the bottom I loosened the rail system screws and unlocked it with a flat head screwdriver.. this let me remove the last RF board (to give me some room), RF cables just unplug, I took a picture to remember how they connected.
- remove the PSU unit.. which sits on the back of the instrument top side. Yeah you're right these screws are a pain.
- you should now be seeing a metal shroud cover in the back of the instrument which protects the PC boards.. this shouldn't be too difficult to remove.

Report to moderator Logged

kazam

Regular Contributor



Posts: 70



Re: Rohde & Schwarz FSEA 30

« **Reply #31 on:** October 11, 2016, 07:14:23 am »

Say Thanks

Reply

Quote

Yes, got it. Thanks.

Used a Transcend D330 32GB drive. My image file of the original drive compressed to ~235MB. Didn't bother with RAM upgrade, will order a new battery though.

In the end I opted to snip some plastic off the PSU connector in order to not have to loosen the innermost RF card. This worked fine.

Now I just have to get this thing together again!

Quote from: Muxr on October 10, 2016, 03:06:58 pm

The way I got to the PC board is following (should be similar for you):

- at the bottom I loosened the rail system screws and unlocked it with a flat head screwdriver.. this let me remove the last RF board (to give me some room), RF cables just unplug, I took a picture to remember how they connected.
- remove the PSU unit.. which sits on the back of the instrument top side. Yeah you're right these screws are a pain.
- you should now be seeing a metal shroud cover in the back of the instrument which protects the PC boards.. this shouldn't be too difficult to remove.



20161011_090526.jpg (439.35 kB, 1440x1080 - viewed 1249 times.)

[Report to moderator](#) Logged

kazam
Regular Contributor

Posts: 70

Re: Rohde & Schwarz FSEA 30
« Reply #32 on: October 11, 2016, 10:20:23 am »

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

OK, so that's not working.

The BIOS complains that there is no boot disk available. I have tried restoring the image twice. The original drive read fine with ddrescue from Linux.

I'm starting to suspect that the BIOS won't acknowledge drives larger than 4GB or something equally stupid. 🙄 There's only one partition on the drive though and that's the original 2GB partition.

I don't need to set a boot flag in the MBR or something to that effect? It's been awhile since I did anything with IDE.

[Report to moderator](#) Logged

CJay
Super Contributor

Posts: 3932
Country:

Re: Rohde & Schwarz FSEA 30
« Reply #33 on: October 11, 2016, 11:17:46 am »

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

If the BIOS can see the drive then it should boot as long as the image is good but is your imaging software 'resizing' a DOS partition to something larger than DOS can see?

Is it possible to boot the analyser with a USB stick, DOS floppy or optical media so you can check that you can partition and format the SSD 'in situ'?

[Report to moderator](#) Logged

Muxr
Super Contributor

Posts: 1345
Country:

Re: Rohde & Schwarz FSEA 30
« Reply #34 on: October 11, 2016, 01:44:37 pm »

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

Quote from: kazam on October 11, 2016, 10:20:23 am

OK, so that's not working.

The BIOS complains that there is no boot disk available. I have tried restoring the image twice. The original drive read fine with ddrescue from Linux.

I'm starting to suspect that the BIOS won't acknowledge drives larger than 4GB or something equally stupid. 🙄 There's only one partition on the drive though and that's the original 2GB partition.

I don't need to set a boot flag in the MBR or something to that effect? It's been awhile since I did anything with IDE.

Make sure your ddrescue backed up the entire device and not just one partition from it. Your situation is probably different (different version of software and OS), but my original disk had two equally sized partitions, and one small one.

FUJITSU MHH2048AT Media
4.87 GB USB External Physical Disk

■ ROHDE	■ ROHDE	■ Untitled
2.15 GB	2.15 GB	32.9 MB

Location:	External	Capacity:	4.87 GB
Connection:	USB	Child count:	3
Partition Map:	Master Boot Record	Type:	Disk
S.M.A.R.T. status:	Not Supported	Device:	disk7

Report to moderator

kazam
Regular Contributor

Posts: 70

Re: Rohde & Schwarz FSEA 30
« Reply #35 on: October 11, 2016, 09:21:03 pm »

Say Thanks Reply Quote

Yes, I did backup the entire device.

I did some reading and it turns out certain BIOS implementations simply can't deal with drives larger than 8GB. So now I'm trying to find a way to reduce the actual disk size as reported to the BIOS.

Report to moderator

kazam
Regular Contributor

Posts: 70

Re: Rohde & Schwarz FSEA 30
« Reply #36 on: October 13, 2016, 08:41:45 am »

Say Thanks Reply Quote

HDAT2 could possibly be the solution here.

We're you able to get into the BIOS? I'm thinking of getting a keyboard to have a look around.

Report to moderator

Muxr
Super Contributor

Posts: 1345
Country:

Re: Rohde & Schwarz FSEA 30
« Reply #37 on: October 22, 2016, 03:42:52 am »

Say Thanks Reply Quote

I have not tried accessing the BIOS, sorry.

Report to moderator

pjm
Contributor

Posts: 5
Country:

Re: Rohde & Schwarz FSEA 30
« Reply #38 on: October 10, 2017, 04:55:09 pm »

Say Thanks Reply Quote

Hi Chaps,

Thanks for the suggestion on the HDD replacement. I have an FSIQ3 which is virtually the same internally as the FSEA30 and the HDD which was an old Fujitsu 4.7G thing, was starting to make noises similar to the click of death. Anyway, I have DD'd the image and copied it to an 8Gb UDMA7 transcend flash, system boots quickly and seems very responsive.

I've also added a LAN card, its a 16 bit ISA 10base2 / 10baseT (INTEL PRO/10 S82595 COMBO 10 Mb RJ45 BNC ISA) which NT4 supports. No issues with compatibility and chats on the network nicely - Windows 7 clients have to have a simple mod to allow them to get to the disk shares. Also installed VNC service on the O/S to allow easy remote management, all very good so far.

The analyser certainly is excellent and I can say that its performance is comparable with units many times the price. I've tested the phase noise measurement and the noise figure measurement and both

work fine.

Regards,

Paul
@uhf_satcom



IMG_4813.jpg (890.42 kB, 3072x2304 - viewed 1209 times.)

[Report to moderator](#) Logged

The following users thanked this post: Muxr

technogeeky

Frequent Contributor



Posts: 559

Country:

Older New "New Player"
Player Playaf



Re: Rohde & Schwarz FSEA 30

« Reply #39 on: October 10, 2017, 05:08:48 pm »

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

Wow. On the plus side, if that instrument ever dies beyond repair that thing is chock full of (probably) very nice cables. Short, but I bet they are very nice.

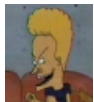
Beautiful instrument.

[Report to moderator](#) Logged

The following users thanked this post: Muxr

Bicurico

Super Contributor



Posts: 1229

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #40 on: October 29, 2017, 11:17:59 am »

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

Hi,

I am going to receive such a unit to try to repair it. It boots with error on STEST ABORTED ERROR ON RF MODUL RF CONVERTER Error 18.

Any idea, apart from usual cleaning?
Looking for manuals and repair info.
Will keep you updated.

Regards,
Vitor

[Report to moderator](#) Logged

<http://vma-satellite.blogspot.pt/>

MindBender

Contributor

Posts: 46



Re: Rohde & Schwarz FSEA 30

« Reply #41 on: April 09, 2018, 08:22:43 pm »

Say Thanks Reply Quote

It's a factory bodge; My FSIQ3 has it too.

Report to moderator Logged

MindBender

Contributor

Posts: 46



Re: Rohde & Schwarz FSEA 30

« Reply #42 on: April 09, 2018, 08:45:09 pm »

Say Thanks Reply Quote

Quote from: kazam on October 11, 2016, 09:21:03 pm

Yes, I did backup the entire device.

I did some reading and it turns out certain BIOS implementations simply can't deal with drives larger than 8GB. So now I'm trying to find a way to reduce the actual disk size as reported to the BIOS.

I'm sorry to dig up such an old thread, but I guess it's justified because the instrument isn't that young anymore either, and my problem is very similar to yours.

It is also possible that your CF card is not supported because it only reports it's size in LBAs, and not in the older CHS (Cylinders/Heads/Sectors). Many CF cards don't do this, because it is not mandatory for the CompactFlash standard. If the BIOS doesn't support LBA, it requires CHS, and hence the machine won't boot.

I too own an FSIQ3 with most of the HW options installed. I got it 6 years ago, and haven't used it very much, unfortunately. When I got it, I did upgraded the RAM: I got it to work with 2 SO-DIMMs of 512MiB each SDR133 RAM. I don't think 1GB PC133 SO-DIMMs were ever made, or are incredibly rare, expensive and unlikely to be supported.

My battery went dead, and because I'm a stickler, I wanted to replace it. Anybody knows how long it will last? Because it's a real journey to get to the battery. I ordered a new one. Tip: If you want one with the leads on it, order an LS14250CNA.

I did not update the HDD when I got the unit, but I'm not waiting until the old Fujitsu MHK2060AT is breaking down. So now it's open, I'm replacing it with a Transcend TS8GSPSD520 8GB SLC drive. It's industrial grade, according to Transcend. I hope it really is. I'm not concerned with speed. I'm more concerned with reliability: I have seen NAND flash memory fail in many devices. SLC is a good sign though. I hope my BIOS supports the drive.

After I have DD'ed my original drive to the new and bigger Transcend drive: Does anybody know if I can safely resize the partition so it will also span the extra size of the new drive?

Report to moderator Logged

MindBender

Contributor

Posts: 46



Re: Rohde & Schwarz FSEA 30

« Reply #43 on: April 29, 2018, 10:41:52 am »

Say Thanks Reply Quote

Quote from: kazam on October 11, 2016, 07:14:23 am

Used a Transcend D330 32GB drive. My image file of the original drive compressed to ~235MB. Didn't bother with RAM upgrade, will order a new battery though.

Did you get it to work with that Transcend drive? I have tried both the 2GB TS2GSPSD520 and the 4GB TS4GSPSD520. When booting the instrument into MS-DOS 6.22 by floppy, it doesn't even recognise having a hard disk. I didn't try a CF adapter with this instrument.

These Transcend drives didn't work in my R&S UPL either. They were recognised, but fdisk failed. The BIOS (latest version) mis-identified them, but even with manual geometry configuration, fdisk failed. When dumping the disk contents after fdisk failure, all odd bytes had a value of 0xFF and the even bytes didn't make much sense. None of the many CF cards I have tried worked either. All the exact same failure mode. Really frustrating.

Can anybody confirm what drive/CF-card you have and whether that works with this instrument?

Report to moderator Logged

Converter

Regular Contributor



Posts: 199

Country:

Re: Rohde & Schwarz FSEA 30

« Reply #44 on: May 14, 2018, 02:59:39 am »

Say Thanks Reply Quote

Hello everyone,
Who can answer me? This green LED "SUPPLY-CHECK", which is located at the back of the device (FSIQ3) near the power connector, should glow? Or is it a sign of a malfunction? I checked all the



voltages: +12, +15, -15, +5.2, +5.5, +28. It seems that they are all in the normal range. Nevertheless, I get this glowing LED "SUPPLY-CHECK" immediately after the start of the spectrum analyzer.

Nobody has an electric schematic for this power unit? It's strange, but I did not see any tuning resistors inside for any adjustments.

« Last Edit: May 14, 2018, 03:01:27 am by Converter »

Report to moderator Logged

Contributor

Posts: 27

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #45 on: June 07, 2018, 04:04:31 pm »

Say Thanks

Reply

Quote

Hi PAL,

Is there anybody know how to clone the disk of ZVR?

as I know, ZVR have the same CPU card as FSEA.

The HDD of my ZVR is dying and I have to backup and clone it to another HDD.

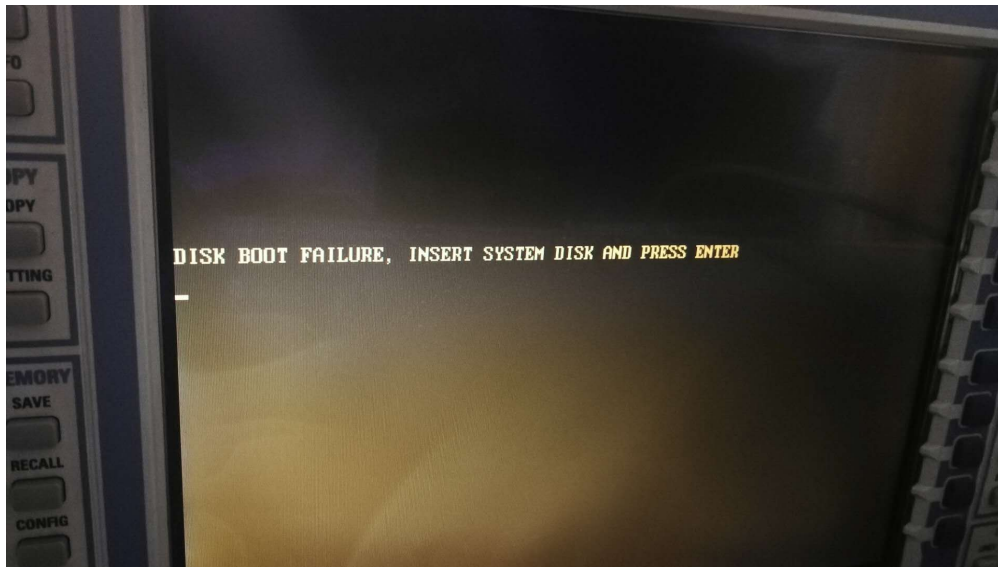
I had tried "Selfimage" tool running on winXP and "ddrescue" tool running on Ubuntu, without lucky, both is fail. 🤔

it error said "DISK BOOT FAILURE, INSERT SYSTEM DISK AND PRESS ENTER"

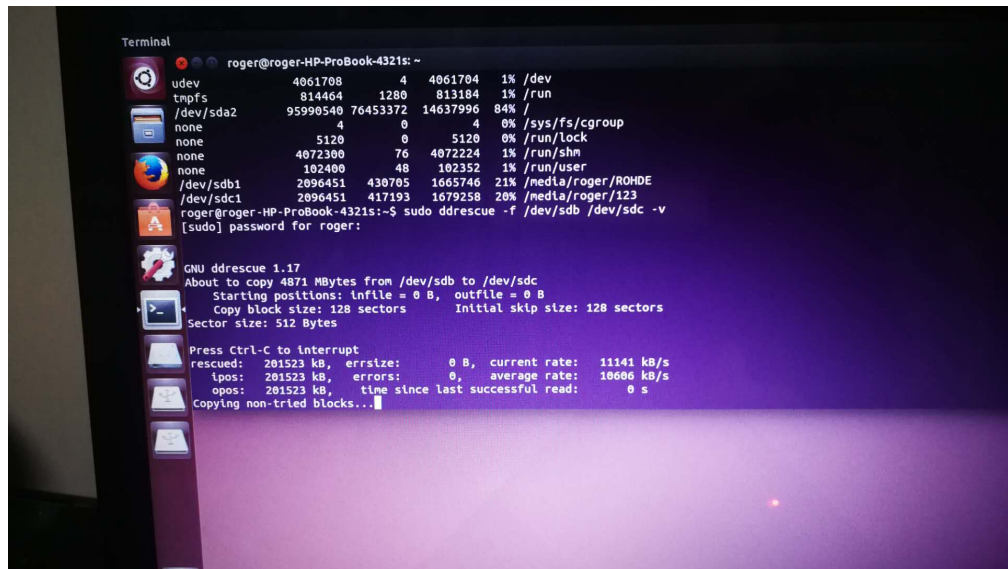
So it there anybody have clone the HDD successful? and it is so much thanks to whom, tell me the exactly step?

thanks advance.

Roger



error.jpg (72.19 kB, 1913x1080 - viewed 654 times.)



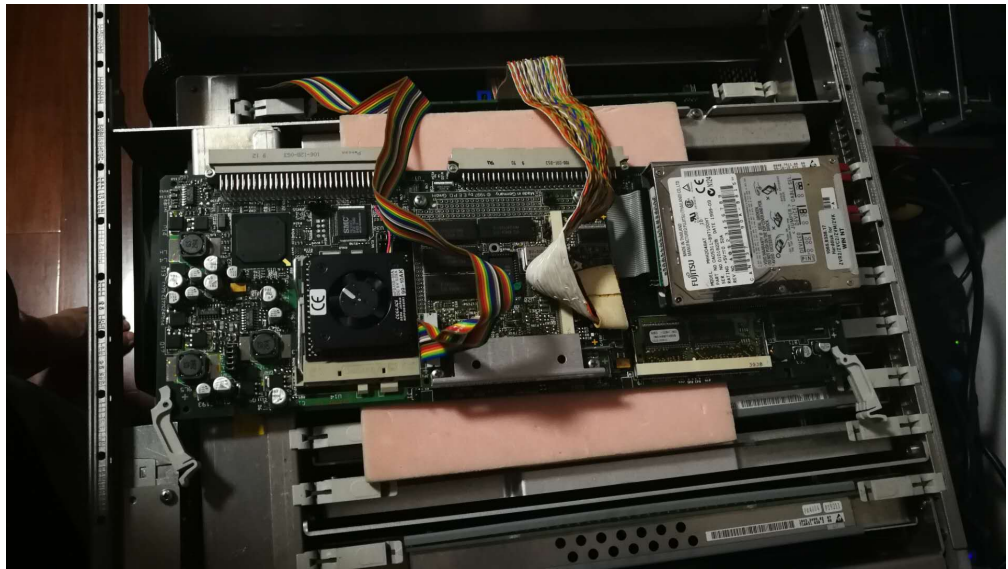
clone.jpg (105.15 kB, 1913x1080 - viewed 658 times.)



CF_card.jpg (81.02 kB, 1080x1913 - viewed 638 times.)



Front Panel.jpg (127.54 kB, 1080x1913 - viewed 621 times.)



CPU_card_inside.jpg (156.42 kB, 1913x1080 - viewed 696 times.)

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Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« **Reply #46 on:** June 07, 2018, 04:20:00 pm »

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

ddrescue should work.. make sure you're backing up the entire disk, not just one partition. If you're just restoring one partition then the MBR (master boot record) won't be written and your target drive won't be able to boot.

There are also ways to rebuild MBR but I would rather just backup and restore the whole drive with ddrescue.

Can you list your ddrescue commands you used?

Actually, nevermind, saw it in your screenshot.

Try "parted -l" to check the partition table.. and see if the boot flag is present.

« *Last Edit:* June 07, 2018, 04:30:45 pm by Muxr »

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sky2city

Contributor

Posts: 27

Country:



Re: Rohde & Schwarz FSEA 30

« **Reply #47 on:** June 07, 2018, 05:22:52 pm »

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

Hi Muxr,

thanks for your reply.

pls. refer the pic attached, I am sure I had cloned the whold disk, given the size of ZVR HDD is 4871Mbytes.

about ddrescue command line, I just used one command, it is

"sudo ddrescue -f -v /dev/sdb /dev/sdc";

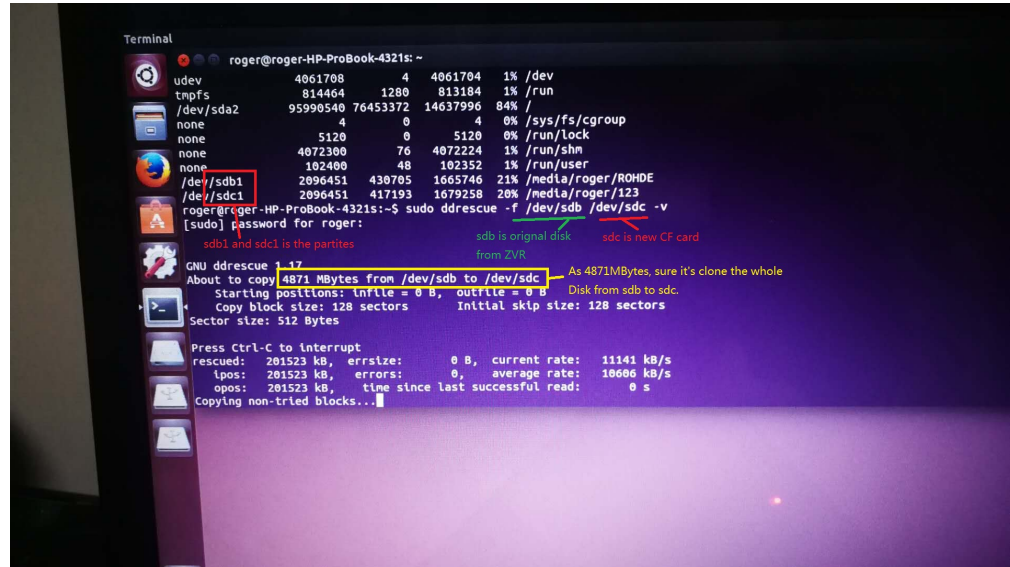
/dev/sdb is the original HDD from ZVR, and sdc is the new CF card, with CF to IDE transfer card.

about the boot flag, I can mount the CF card on my IBM labtop and boot it, I saw the OS loader screen, select the winNT or winNT with VGA mode. so I thinks the boot flag is corrective.

Anyway, I will double check it again.

thanks for your reply again.

Roger.



clone_cmd.jpg (274.21 kB, 1913x1080 - viewed 565 times.)

« Last Edit: June 07, 2018, 05:57:59 pm by sky2city »

Report to moderator Logged

sky2city

Contributor

Posts: 27

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #48 on: June 07, 2018, 05:34:17 pm »

Say Thanks Reply Quote

Must I format the CF card firstly before I clone it?

Or maybe the BIOS of ZVR can't recognize the CF card?

So, I want to enter the BIOS to see, if the BIOS have found the new CF card disk already. I have a key board and mouse install in ZVR, when I pressed DEL or F2 when booting, nothing happen. I think maybe that a AWRD BIOS that customized by R&S.

any idea / advice for the next step?

Roger.

Report to moderator Logged

DaJMasta

Super Contributor



Posts: 2141

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #49 on: June 07, 2018, 05:42:21 pm »

Say Thanks Reply Quote

Definitely could be, I know I've had some trouble with compact flash cards in adapters not being identified by older systems. If Delete doesn't work, try basically any of the function keys.... there are a few keys it could be, so I usually just end up jamming as many as I can in that initial window.

Report to moderator Logged

<http://www.medpants.com/> - W3BSN

Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #50 on: June 07, 2018, 05:48:44 pm »

Say Thanks Reply Quote

sky2city.. from your screenshots it looks like you did everything correctly.

See this review for the IDE to CF adapter I was using:
https://www.amazon.com/review/R1VL7K96HDXOPG/ref=cm_cr_dp_title?ie=UTF8&ASIN=B0036DDXUM&channel=detail-glance&nodeID=172282&store=electronics

This user mentions that not all IDE to CF adapters present the media as fixed to the operating system, and instead it presents it as a removable media which could pose a difficulty in booting from it.

I wonder if this is your issue, and the reason why your drive is being ignored when it comes to boot.

Here is another post talking about IDE to CF adapters not being fully IDE compliant:
<https://retrocomputing.stackexchange.com/a/5827>

I don't know if you're able but, perhaps you could try a different adapter?

This is the one that worked for me: https://www.amazon.com/Syba-SD-ADA50024-Interface-Compact-Enclosure/dp/B0036DDXUM/ref=cm_cr_othr_d_product_top?ie=UTF8&th=1

« Last Edit: June 07, 2018, 05:53:01 pm by Muxr »

Report to moderator Logged

sky2city

Contributor

Posts: 27

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #51 on: June 08, 2018, 04:56:10 am »

Say Thanks

Reply

Quote

Muxr,

I searched this CF 2 IDE adapter you recommended in local E-commerce, taobao. The saler said it's same as the adapter you recommended.

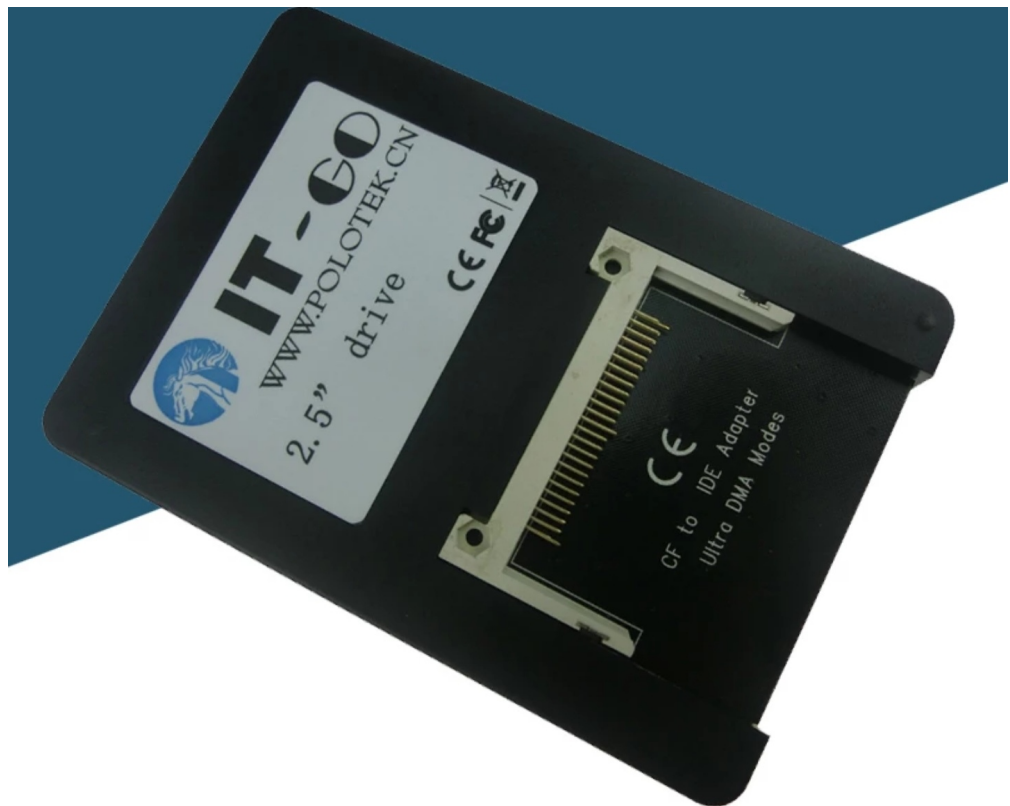
I got the pic inside and compare to the CF 2 IDE adapter I used now, it may same, just connect pins from CF card to IDE interface directly. No IC inside, to handle the data transferring. And I think so, the CF card have the same IDE interface with HDD disk maybe.

Anyway, I would like to try it, since I have no idea to do for next step. :(

Hope something happen, and find the root cause.

Thanks.

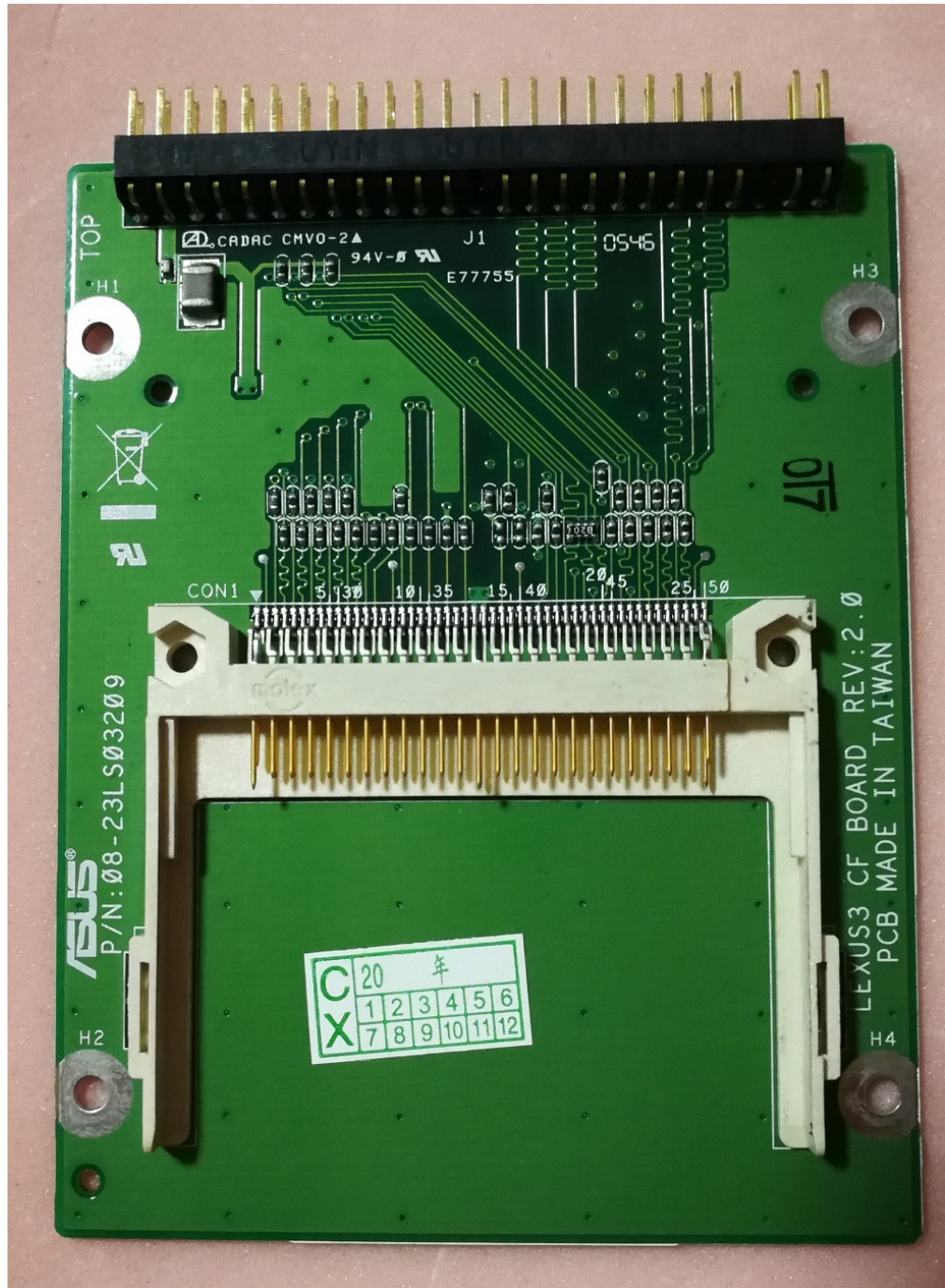
Roger@2018/06/08



New CF 2 IDE adapter.jpg (176.83 kB, 1440x1155 - viewed 462 times.)



New CF 2 IDE adapter(inside).jpg (240.02 kB, 700x1246 - viewed 412 times.)



CF 2 IDE adapter(not work).jpg (461.71 kB, 983x1351 - viewed 466 times.)



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CompactFlash

From Wikipedia, the free encyclopedia

CompactFlash (CF) is a flash memory mass storage device used mainly in portable electronic devices. The format was specified and the devices were first manufactured by SanDisk in 1994.^[4]

CompactFlash became the most successful of the early memory card formats, surpassing Miniature Card and SmartMedia. Subsequent formats, such as MMC/SD, various Memory Stick formats, and xD-Picture Card offered stiff competition. Most of these cards are smaller than CompactFlash while offering comparable capacity and speed. Proprietary memory card formats for use in professional audio and video, such as P2 and SxS, are faster, but physically larger and more costly.

CompactFlash remains popular and is supported by many professional devices and high-end consumer devices. As of 2017, both Canon^[6] and Nikon^[7] use CompactFlash for their flagship digital still cameras. Canon also chose CompactFlash as the recording medium for its professional high-definition tapeless video cameras.^[8] Ikegami professional video cameras can record digital video onto CompactFlash cards through an adaptor.^[9]

Traditional CompactFlash cards use the Parallel ATA interface, but in 2008, a variant of CompactFlash, CFast was announced. CFast (also known as CompactFast) is based on the Serial ATA interface.

In November 2010, SanDisk, Sony and Nikon presented a next generation card format to the CompactFlash Association. The new format has a similar form factor to CF/CFast but is based on the PCI Express interface instead of Parallel ATA or Serial ATA.^{[10][11]} With potential read and write speeds of 1 Gbit/s (125 MB/s) and storage capabilities beyond 2 TiB, the new format is aimed at high-definition camcorders and high-resolution digital cameras, but the new cards are not backward

CF_interface_defind.png (149.8 kB, 1500x678 - viewed 384 times.)

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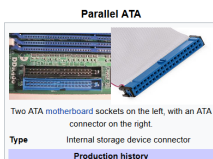
Parallel ATA

From Wikipedia, the free encyclopedia
(Redirected from Integrated Drive Electronics)


Parallel ATA (PATA), originally **AT Attachment**, is an interface standard for the connection of storage devices such as **hard disk drives**, **floppy disk drives**, and optical disc drives in computers. The standard is maintained by the X3/INCITS committee.^[1] It uses the underlying **AT Attachment (ATA)** and **AT Attachment Packet Interface (ATAPI)** standards.

The Parallel ATA standard is the result of a long history of incremental technical development, which began with the original AT Attachment interface, developed for use in early **PC AT** equipment. The ATA interface itself evolved in several stages from Western Digital's original **Integrated Drive Electronics (IDE)** interface. As a result, many near-synonyms for ATA/ATAPI and its previous incarnations are still in common informal use, in particular **Extended IDE (EIDE)** and **Ultra ATA (UATA)**. After the introduction of **Serial ATA (SATA)** in 2003, the original ATA was renamed to Parallel ATA, or PATA for short.

Parallel ATA cables have a maximum allowable length of 18 in (457 mm).^[2] Because of this limit, the technology normally appears as an internal computer storage interface. For many years, ATA provided the most common and the least expensive interface for this application. It has largely been replaced by SATA in newer systems.







Parallel ATA
Two ATA motherboard sockets on the left, with an ATA connector on the right
Internal storage device connector
Type
Production history

 (229.32 kB, 1835x480 - viewed 369 times.)

« Last Edit: June 08, 2018, 05:08:37 am by sky2city »

Report to moderator 

CJay
Super Contributor

Posts: 3932
Country: 
 

 **Re: Rohde & Schwarz FSEA 30**
« Reply #52 on: June 08, 2018, 06:29:27 am »

Say Thanks Reply Quote

Will the ZVR boot from a DOS floppy so you can see if the CF card is recognised (have you even got the means to make a DOS boot floppy)?

I've a feeling the problem might be the BIOS not liking the CF card itself, have you a different card (smaller perhaps) that you could put DOS files on to boot the ZVR from and prove it works

Report to moderator 

sky2city
Contributor
Posts: 27
Country: 
 

 **Re: Rohde & Schwarz FSEA 30**
« Reply #53 on: June 08, 2018, 09:53:28 am »

Say Thanks Reply Quote

Hi CJay,
Thanks for your reminder.
I have two plan for finding out the root cause:

Plan A)
As you adviced, I have bought a folppy 2 USB disk kits, which is same as Murx did, (refer to Reply #12 of this thread).
then I will make a DOS boot disk , to see if the CF card can be identified.

Plan B)
Several years ago, I had a ZVR with red panel, this is a older type, which is running in DOS system. There are 2 partitions, one of the partition is intalled DOS and a win 32 sysytem, anther partition is install a instrument software.
I replaced a ZVR disk,with a Fujitsu HDD, 30G Bits capacity.

I remember that the ZVR can identified the new 30G Fujitsu HDD, but the second partition is lost. As a work arround, I copied all the second partition files to C:\D_Disk, and added a command "Subst C:\D_Disk d:" to AUTOEXEC.bat, that mean add a visual D disk running, it work fine!

Few days ago, I replaced HDD of new ZVR with blue Panel, with the DOS HDD disk in red paneal ZVR. I found ZVR worked fine, and just one minor issue: the test data is a little strange, maybe caused by the wrong factory calibration data.

That means the fujitsu 30G HDD can be identified by both ZVRs, the one with red panel and another with blue panel.

I have bought Fujitsu HDD disk, just arrived today. I will try it again as I did before.

any good advice ?

I will update..... stay tuned.

Roger@2018/06/08.

« Last Edit: June 08, 2018, 09:58:12 am by sky2city »

Report to moderator 

CJay
Super Contributor

Posts: 3932

 **Re: Rohde & Schwarz FSEA 30**
« Reply #54 on: June 08, 2018, 10:07:08 am »

Say Thanks Reply Quote

Well if you can get it to boot from a DOS floppy and it recognises the CF card as a valid disk I would be tempted to try and connect the old hard disk and the CF card to clone in the ZVR with an old copy

Country:

of Norton Ghost.

I found my CMU200 with the older front panel wouldn't recognise some 2.5" disks and I ended up with a 4GB CF card but it seems other members have had issues with larger CF cards too.

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

sky2city

Contributor

Posts: 27
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #55 on:** June 08, 2018, 10:26:18 am »

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

Oh..... I have a CMU200 too.

But one question:

How can I connect the old hard disk and the CF card to clone in the ZVR ? There is only one IDE interface in ZVR.

should I install HDD with original system and my new CF card on a older computer? The start Norton Ghost?

« *Last Edit:* June 08, 2018, 10:29:40 am by sky2city »

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

CJay

Super Contributor

Posts: 3932
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #56 on:** June 08, 2018, 10:41:06 am »

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

If it's PC based then the IDE interface will almost definitely support two devices but you'll need a cable with an extra connector and might need to alter master/slave/cable select jumpers on the drive and CF adapter board.

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

The following users thanked this post: sky2city

sky2city

Contributor

Posts: 27
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #57 on:** June 08, 2018, 11:31:15 am »

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

Oh....I see.
I did it ofen when I was still studied in Univercity.



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

CJay

Super Contributor

Posts: 3932
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #58 on:** June 08, 2018, 11:48:07 am »

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

You may find this thread useful too:

<https://www.eevblog.com/forum/repair/rs-cmu200crtu-ru-how-to-backup-entire-hdd/>

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sky2city

Contributor

Posts: 27
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #59 on:** June 15, 2018, 10:40:32 am »

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

Hi Guys,
I got the solution finally. Thanks all of you.

I will post it later on. Given that the CPU fan sounds terrible, I am worry about it a lot.

I can' t find any Fan to replace it since that is a really old one.

if I can not replace the fan, I may add lubricate oil to reduce the noise from cpu fan.

Roger@2018-06-15

« *Last Edit:* June 15, 2018, 10:42:51 am by sky2city »

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

sbvr4

Contributor

Posts: 25
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #60 on:** June 12, 2019, 11:02:06 am »

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



Hi sky2city,
Sorry to dig this up, but would you mind sharing your solution? I have a FSEB that is stuck booting.

Thank you,
Sbvr4

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

OH2LIY

Contributor

Posts: 41

Country:



Re: Rohde & Schwarz FSEA 30 « **Reply #61 on:** June 13, 2019, 03:29:36 pm »

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

Hi, last time I used RPi3+PATA2USB converter to make backup/replace my HDD (NT4). Earlier I have used Partition Magic, but it's pita to use nowadays. If it helps someone I can put my notes, what I did last time:

Ramppa

```
apt-get install ntfs-3g
```

BACKUP:

```
ntfsclone --save-image --output backup.img /dev/sdb
```

Backup the BootSector/MBR: Some guides show only taking the first 512 bytes (MBR), others show the first 63 blocks (MBR + Bootloader).

```
dd if=/dev/sdb of=sdb.mbr bs=512 count=1
```

```
dd if=/dev/sdb of=sdb.vbr bs=512 count=63 <--this takes all!
```

RESTORE:

```
dd if=sdb.vbr of=/dev/sdb bs=512 count=63
```

```
ntfsclone --restore-image --overwrite /dev/sdb1 backup.img
```

```
fdisk /dev/sdb <-- make disk bootable!
```

```
root@shinning_new:/home/ramppa# dd if=/dev/sdb of=sdb.mbr bs=512 count=1
1+0 records in
1+0 records out
512 bytes copied, 0.0847422 s, 6.0 kB/s
```

```
root@shinning_new:/home/ramppa# dd if=/dev/sdb of=sdb.vbr bs=512 count=63
63+0 records in
63+0 records out
32256 bytes (32 kB, 32 KiB) copied, 0.103919 s, 310 kB/s
```

```
root@shinning_new:/home/ramppa# ntfsclone --save-image --output backup.img /dev/sdb1
ntfsclone v2016.2.22AR.1 (libntfs-3g)
NTFS volume version: 3.1
Cluster size      : 512 bytes
Current volume size: 2146765312 bytes (2147 MB)
Current device size: 2146765824 bytes (2147 MB)
Scanning volume ...
100.00 percent completed
```

```
root@shinning_new:/home/ramppa# ntfsclone --restore-image --overwrite /dev/sdb1 backup.img
ntfsclone v2016.2.22AR.1 (libntfs-3g)
Ntfsclone image version: 10.1
Cluster size      : 512 bytes
Image volume size : 2146765312 bytes (2147 MB)
Image device size : 2146765824 bytes
Space in use      : 528 MB (24.6%)
```

Offset to image data : 56 (0x38) bytes
Restoring NTFS from image ...
100.00 percent completed
Syncing ...

root@shinning_new:/home/ramppa# cfdisk /dev/sdb <- make it bootable

Device	Boot	Start	End	Sectors	Size	Id	Type
>> /dev/sdb1	*	63	4192964	4192902	2G	7	HPFS/NTFS/exFAT

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

The following users thanked this post: sbvr4

sky2city

Contributor

Posts: 27

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #62 on: June 13, 2019, 04:03:46 pm »

[Say Thanks](#)

[Reply](#)

[Quote](#)

Quote from: sbvr4 on June 12, 2019, 11:02:06 am

Hi sky2city,
Sorry to dig this up, but would you mind sharing your solution? I have a FSEB that is stuck booting.

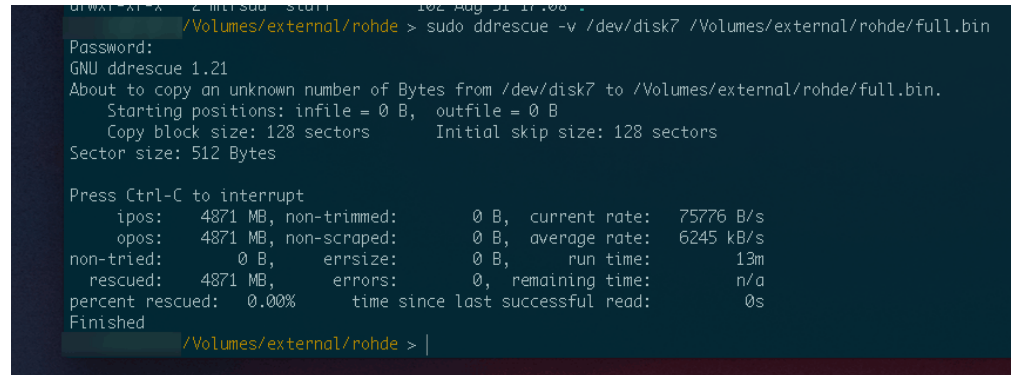
Thank you,
Sbvr4

My solution is :

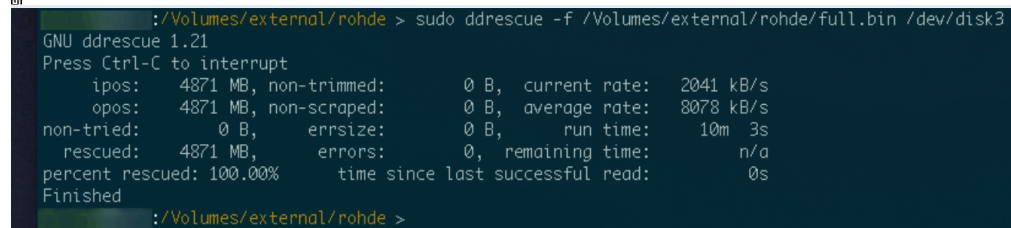
1. use corrective TF CARD. SanDisk is tested to me.
2. use corrective TF to IDE adaptor. I recall the small card marked as AUAS is OK and cheap.
3. Use corrective software tools. those tools are tested by myself. A)Ubuntu ddrescue B) DD Ubuntu C) SelfImage-121(remember running in XP windows)

I attached the pic of sreccn shoot of commands that using ddrescue to backup/restore img.

Good luck.



Ubuntu ddrescue backup.png (88.48 kB, 852x318 - viewed 190 times.)



Ubuntu ddrescue restore.png (165.51 kB, 1328x299 - viewed 170 times.)

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

The following users thanked this post: sbvr4

sbvr4

Contributor

Posts: 25

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #63 on: June 19, 2019, 03:06:36 pm »

[Say Thanks](#)

[Reply](#)

[Quote](#)

I have a FSEB with BIOS 3.3 that doesn't boot, 99% of the time. The hard drive was failing and I did everything stated above (CF update, RAM update), but despite multiple attempts with DD and DDrescue, it gets stuck at the same point and corrupts 4096 bits.

The odd thing is the SA will boot occasionally, usually immediately after the cpu has been removed to access the hard drive. It runs normally and passes all self-tests and calibration in these instances.

Otherwise, it just hangs at "booting" with the bar spinning. This makes me think its a hardware issue more than software, but cant be sure.

Does anyone have a HDD image or firmware for BIOS v3.3? I believe v2.0 through v3.3 is compatible. Any help would be greatly appreciated.

Thank you

Report to moderator Logged

Muxr

Super Contributor



Posts: 1345

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #64 on: June 19, 2019, 06:16:49 pm »

Say Thanks Reply Quote

Here is my FSEA 30 image: <http://rev.muxr.org/fsae/fsae30.tar.gz> [41Mb]

Even if the version doesn't match perhaps you can dig into and see which file is corrupted. Maybe the particular file hadn't changed between versions. Hope that helps.

ddrescue has a --retry setting you could try as well, and see if that helps.

You could also give SpinRite a try. I had success in the past recovering corrupted drives with it. It's a low level utility (written in assembly) that does some fancy low level stuff to try and recover corrupted data.

It's \$90 though: <https://www.grc.com/cs/prepurch.htm>

« Last Edit: June 19, 2019, 06:19:59 pm by Muxr »

Report to moderator Logged

The following users thanked this post: sbvr4

sbvr4

Contributor

Posts: 25

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #65 on: June 20, 2019, 10:23:13 am »

Say Thanks Reply Quote

Thank you Muxr,
I'll give that a shot tonight and report back.

Report to moderator Logged

The following users thanked this post: Muxr

sbvr4

Contributor

Posts: 25

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #66 on: July 01, 2019, 03:04:35 am »

Say Thanks Reply Quote

Unfortunately, it seems as though I have a hardware issue. I've used the .bin provided (thank you again Muxr) and the symptoms seem to be the same. It usually boots initially, after rewriting the hard drive, but gets stuck booting on attempts afterwards. I'm not sure where to go from here. Does anyone have any suggestions on what to troubleshoot to narrow down the possible cause? Any help would be greatly appreciated.

Thank you.

Report to moderator Logged

analogRF

Frequent Contributor



Posts: 793

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #67 on: August 13, 2019, 06:56:58 pm »

Say Thanks Reply Quote

Does anybody know what the Service PASSWORD is for FSEA/FSEB?

Report to moderator Logged

rf-messkopf

Regular Contributor



Posts: 73

Country:

Mario H.



Re: Rohde & Schwarz FSEA 30

« Reply #68 on: August 14, 2019, 12:28:18 pm »

Say Thanks Reply Quote

Quote from: analogRF on August 13, 2019, 06:56:58 pm

Does anybody know what the Service PASSWORD is for FSEA/FSEB?

Try SETUP -> SERVICE -> ENTER PASSWORD -> 894129 Hz.

Report to moderator Logged

The following users thanked this post: analogRF

analogRF
 Frequent Contributor

 Posts: 793
 Country:

Re: Rohde & Schwarz FSEA 30
 « Reply #69 on: August 14, 2019, 02:42:56 pm » Say Thanks Reply Quote

Quote from: rf-messkopf on August 14, 2019, 12:28:18 pm

Quote from: analogRF on August 13, 2019, 06:56:58 pm

Does anybody know what the Service PASSWORD is for FSEA/FSEB?

Try SETUP -> SERVICE -> ENTER PASSWORD -> 894129 Hz.

yes, R&S tech support also told me that was the password

Report to moderator Logged

analogRF
 Frequent Contributor

 Posts: 793
 Country:

Re: Rohde & Schwarz FSEA 30
 « Reply #70 on: August 15, 2019, 12:43:46 am » Say Thanks Reply Quote

Quote from: sbvr4 on June 19, 2019, 03:06:36 pm

I have a FSEB with BIOS 3.3 that doesn't boot, 99% of the time. The hard drive was failing and I did everything stated above (CF update, RAM update), but despite multiple attempts with DD and DDrescue, it gets stuck at the same point and corrupts 4096 bits. The odd thing is the SA will boot occasionally, usually immediately after the cpu has been removed to access the hard drive. It runs normally and passes all self-tests and calibration in these instances. Otherwise, it just hangs at "booting" with the bar spinning. This makes me think its a hardware issue more than software, but cant be sure.

Does anyone have a HDD image or firmware for BIOS v3.3? I believe v2.0 through v3.3 is compatible. Any help would be greatly appreciated.

Thank you

read my posts here

<https://www.eevblog.com/forum/repair/wanted-rohde-schwarz-fsea-service-floppy-disk-andor-schematics/new/#new>

read the readme file in the second attachment that I posted. This is the service floppy for these analyzers and it was supposed to be used for solving boot problems due to HDD corruption. That might help you

Report to moderator Logged

The following users thanked this post: sbvr4

sbvr4
 Contributor
 Posts: 25
 Country:

Re: Rohde & Schwarz FSEA 30
 « Reply #71 on: August 15, 2019, 04:44:39 pm » Say Thanks Reply Quote

analogRF that is really helpful. I'll give this a try once I can find a couple 3.5" floppies. Thank you very much!

Report to moderator Logged

analogRF
 Frequent Contributor

 Posts: 793
 Country:

Re: Rohde & Schwarz FSEA 30
 « Reply #72 on: August 15, 2019, 05:59:09 pm » Say Thanks Reply Quote

Quote from: sbvr4 on August 15, 2019, 04:44:39 pm

analogRF that is really helpful. I'll give this a try once I can find a couple 3.5" floppies. Thank you very much!

you're welcome 😊

Give it a try and see if that helps to fix the boot issue and let us know

I have never used this service kit myself and I have not actually made those two floppies yet because my FSEA has more serious hardware issues at the moment.

If you make those two service diskettes, could you please let me know if any of them contains the FSE_IO.EXE and GR_CHECK.EXE service routines? These are used in troubleshooting these analyzers and I am hoping they will be on the diskette when it is unpacked.

Report to moderator Logged

sbvr4

Re: Rohde & Schwarz FSEA 30
 « Reply #73 on: August 15, 2019, 06:34:47 pm » Say Thanks Reply Quote

Contributor
Posts: 25
Country:

Will do analogRF. I'll let you know once I do.

Does anyone have the firmware update available for BIOS 3.XX? I'd like to give that a try if the repair disks don't do the trick.

Thank you,
sbvr4

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

sbvr4

Contributor
Posts: 25
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #74 on:** January 20, 2020, 12:48:29 am »

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

Hi Muxr or anyone with knowledge regarding opt B15 computer function. Where does the 50pin connector that comes off the processor daughter board plug in to? I ask because I wanted to add the "computer function" opt to my SA. I bought a processor board with the daughter and hard drive off of a FSIQ. I plugged the 50pin connector into X350 on the motherboard, but i get a blank display when powered on. I read that Windows NT requires an additional VGA card. Does anyone know if there is a VGA card present with this option?

Thank you,
Sean

« Last Edit: January 20, 2020, 02:12:17 pm by sbvr4 »

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

sbvr4

Contributor
Posts: 25
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #75 on:** January 22, 2020, 11:33:33 am »

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

Update. So I think I've got it figured out. The service manual is a bit confusing as it only references the older 486 style processor w/computer function which requires a graphics card. Newer Pentium processors with the attached daughter board do not. Turns out the processor board I bought with B15 was dead. When I added the daughter board to my non-B15 Pentium processor, and swapped hard drives and it works. Now I need to figure out how to swap cal data and serial number.

BTW, let me know if anyone needs a image. Firmware 4.0 w/MSNT seems impossible to find. I also have images of 3.2 and 2.1.

Thanks for the help all.
Sbvr4

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sixtimesseven

Frequent Contributor

Posts: 321
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #76 on:** January 25, 2020, 05:49:20 pm »

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

Quote from: sbvr4 on January 22, 2020, 11:33:33 am

Update. So I think I've got it figured out. The service manual is a bit confusing as it only references the older 486 style processor w/computer function which requires a graphics card. Newer Pentium processors with the attached daughter board do not. Turns out the processor board I bought with B15 was dead. When I added the daughter board to my non-B15 Pentium processor, and swapped hard drives and it works. Now I need to figure out how to swap cal data and serial number.

BTW, let me know if anyone needs a image. Firmware 4.0 w/MSNT seems impossible to find. I also have images of 3.2 and 2.1.

Thanks for the help all.
Sbvr4

Hi Sbvr4

I have a ZVR with Bios 3.3 which run a Windows NT 4.0. However, unfortunately the HDD has died 😞 I would be interested in the 4.0 Firmware with or without the instrument drivers (ZVR drivers are still available for download). Thank you in advance 😊

Andreas

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

sbvr4

Contributor
Posts: 25
Country:

Re: Rohde & Schwarz FSEA 30
« **Reply #77 on:** February 05, 2020, 02:45:26 pm »

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

Hopefully you got your ZVR up and running Andreas

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

**sixtimesseven**

Frequent Contributor



Posts: 321

Country:

**Re: Rohde & Schwarz FSEA 30**

« Reply #78 on: February 06, 2020, 08:34:10 am »

Say Thanks

Reply

Quote

Yes, it works again.

Turns out the CF replacement card was at fault 🙄

<https://www.eevblog.com/forum/repair/rohde-schwarz-zvr-vna-repair/msg2891896/#msg2891896>

Report to moderator Logged

**paul@yahrprobert.com**

Contributor

Posts: 20

Country:

**Re: Rohde & Schwarz FSEA 30**

« Reply #79 on: June 16, 2020, 03:13:11 am »

Say Thanks

Reply

Quote

Hey you folks!

I've got a ZVK network analyzer that won't boot, and looking through your thread on the FSEA I notice that the CPU board looks exactly the same.

Couple questions:

- my unit doesn't do anything at power on. Nothing on the screen or on either VGA port, no beeps, no blinking lights on the Floppy. All the power supply lines are good and flat and in spec. Anybody solve this kind of problem?

- If my CPU board is dead, where can I find a replacement? Some place in Germany?

Thanks in advance!

Report to moderator Logged

**jbruneaux**

Newbie

Posts: 2

Country:

**Re: Rohde & Schwarz FSEA 30**

« Reply #80 on: September 18, 2020, 05:14:57 pm »

Say Thanks

Reply

Quote

Hi all,

This very first message to try to answer the last post (I will later make a more complete post about the repair of a FSIQ3 unit that we had at work).

On the FSIQ that I did repair, the CPU board was also faulty (same behaviour as paul above. Power up but screen stays black and nothing else).

After some long 'reverse' of the board, I found that there's a small PIC16 microcontroller underneath the HDD (you must remove the drive and caddy). Long story short, This PIC16C has a 4MHz resonator that was dead on my board. I replaced it with a new resonator and the unit started again (more details in the post I will do to share all the things I collected during this repair).

I hope yours has the same fault (to ensure, simply sold a wire to the resonator pin next to the LT1431 SO8 chip, close to the PIC16C, and hook a scope. If there's only a flat 2.5V, then the resonator is dead).

Regards, Jerome

P.S : I'm trying to find a way to enter BIOS, does anyone succeed doing this ?

Report to moderator Logged

The following users thanked this post: Bernd**paul@yahrprobert.com**

Contributor

Posts: 20

Country:

**Re: Rohde & Schwarz FSEA 30**

« Reply #81 on: September 26, 2020, 10:28:51 pm »

Say Thanks

Reply

Quote

Hi Jerome,

Nice bit of detective work finding that bad crystal! I had tried swapping the pentium, the memory, and checked all the voltages, but no digging like that. But then I happened upon a cpu board on ebay that fixed it. See my post here: <https://www.eevblog.com/forum/testgear/rohde-schwarz-zvk-network-analyzer-wont-boot/msg3117922/#msg3117922>

I'm tempted to look at that crystal but I think I'll wait until something else forces me to open up that unit. I was not able to get into the BIOS either.

Paul Probert

Report to moderator Logged

**vincenza****Re: Rohde & Schwarz FSEA 30**

« Reply #82 on: January 18, 2021, 10:26:04 pm »

Say Thanks

Reply

Quote

Newbie

Posts: 2

Country: 



hello, I ask for help, I have a rohde & schwarz fsea 30, I would like to replace the hard disk because it causes problems, I cannot access the bios screen, I read in the forums that the procedure to access is: connect a keyboard and start repeatedly click the DEL key on the keyboard, but it remains still at the booting screen but does not access the bios. I ask for your help, thank you and goodbye

Report to moderator  Logged

analogRF

Frequent Contributor



Posts: 793

Country: 



 **Re: Rohde & Schwarz FSEA 30**

« Reply #83 on: January 19, 2021, 01:49:07 am »

Say Thanks Reply Quote

I am not 100% sure about this but I believe you can only access the BIOS if you have option B15. They call it computer option or controller option. That gives you a "separate" VGA output that does not show the SA screen but instead you get a WinNT or DOS computer screen.

Report to moderator  Logged

analogRF

Frequent Contributor



Posts: 793

Country: 



 **Re: Rohde & Schwarz FSEA 30**

« Reply #84 on: January 19, 2021, 03:21:24 am »

Say Thanks Reply Quote


why do you need to access BIOS anyways?
I replaced my HDD with CF card and never needed to access bios.

Report to moderator  Logged

sbvr4

Contributor

Posts: 25

Country: 



 **Re: Rohde & Schwarz FSEA 30**


« Reply #85 on: January 27, 2021, 08:49:31 pm »

Say Thanks Reply Quote

All,
For anyone interested in a solution in removing the old 2.5 HDD, I can confirm these will work even with older DOS 2.1 version. Best part is you aren't limited to HDD size. Mine booted just fine with a 256GB micro SD card. Ironically, its slower to boot with this conversion (even with a 2GB SD card) than the old 2.5 HDD. I'd recommend buying the card and 3D printed mount. Makes install easy. No affiliation with seller, just have personal experience and can vouch that it worked well.

Sbvr4



 Capture.PNG (400.98 kB, 1169x656 - viewed 137 times.)

« Last Edit: January 27, 2021, 08:54:49 pm by sbvr4 »


Report to moderator  Logged

Bernd

Newbie



Posts: 2

Country: 



 **Re: Rohde & Schwarz FSEA 30**

« Reply #86 on: March 02, 2021, 09:13:01 am »

Say Thanks Reply Quote

@ jbruneaux
>> (more details in the post I will do to share all the things I collected during this repair)

Where can I find the post about the repair?
I am very interested on the details and the long story.

Regards
Bernd


Report to moderator  Logged

Extrasolar

Contributor



Posts: 11

Country: 



 **Re: Rohde & Schwarz FSEA 30**

« Reply #87 on: July 04, 2021, 09:40:47 pm »

Say Thanks Reply Quote

Is there a chance that FSEA image will work on a FSEM30 ??
I have a rather disturbing problem on my unit; Its working all fine from 0 to 26.5 GHz but somehow some options are disabled or replaced by the EMI RECEIVER mode. Plus the I\Q CAL does not save the cal data on the disk because of that(I believe). Before it was doing just fine, I just added some Firmware options and somehow one of them got stuck at some eeprom memory address and wont go away 🤔🤔🤔🤔🤔

Report to moderator  Logged

YetAnotherTechie

Regular Contributor



Posts: 202

Country:

**Re: Rohde & Schwarz FSEA 30**

« Reply #88 on: July 05, 2021, 09:03:04 am »

Say Thanks

Reply

Quote

I have some fsem firmware, i'm not sure if it's also for the unit you have which is latter than mine. I can only get it in a couple of weeks, and i don't know were it is, but i need to get it anyway, so when i do i'll let you know.

Report to moderator Logged

The following users thanked this post: Extrasolar

Extrasolar

Contributor



Posts: 11

Country:

**Re: Rohde & Schwarz FSEA 30**

« Reply #89 on: July 05, 2021, 08:13:55 pm »

Say Thanks

Reply

Quote

Thanks for the response. I will really appreciate it if you send me a FSEM image, it makes no difference if it is FSEM20 or 30, should work nonetheless.
Hopefully will restore the Spectrum Analyzer ...
Thanks again and kind regards !!



20210705_210821.jpg (2683.29 kB, 4128x3096 - viewed 90 times.)

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Der_Rudy

Newbie

Posts: 2

Country:

**Re: Rohde & Schwarz FSEA 30**

« Reply #90 on: August 14, 2021, 09:24:38 am »

Say Thanks

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Hello you all,

I hope someone can help me with my problem.

A friend of mine had 2 FSEA 30 analyzers, an old one (version 1.63) and a newer one (3.2).

The old one was still in use so we started with the newer one to upgrade the HDD to Compact Flash. This went with no problem at all. cloned the HDD wrote it to the 2GB CF, mounted the CF with converter board in the analyzer and booted fine.

Now it was the turn for the old version. cloned the HDD, wrote it to the 2GB CF card, mounted the CF with converter board in the analyzer and nothing. okay, changed the converter board, nothing... changed the CF card ... nothing. The analyzer still booting fine from the original HDD.

Can someone help me out with this problem ??

It looks like the older bios version has no auto HDD detection or something like that.

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YetAnotherTechie

Regular Contributor



Posts: 202

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #91 on: August 14, 2021, 05:52:11 pm »

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Quote from: Extrasolar on July 05, 2021, 08:13:55 pm

Thanks for the response. I will really appreciate it if you send me a FSEM image, it makes no difference if it is FSEM20 or 30, should work nonetheless.
Hopefully will restore the Spectrum Analyzer ...
Thanks again and kind regards !!

Please find the files here, they expire in one week. <https://we.tl/t-B8AkCIUenD>

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The following users thanked this post: N_basil

Der_Rudy

Newbie

Posts: 2

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #92 on: September 21, 2021, 04:12:27 pm »

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Ik hope someone can take a moment to answer my question, the HDD is making more noise every day, R&S can't help with this problem anymore and I'm afraid the HDD can stop at any moment now.

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YetAnotherTechie

Regular Contributor



Posts: 202

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #93 on: September 21, 2021, 04:15:45 pm »

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Are you using industrial CF cards?

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paul@yahrprobert.com

Contributor

Posts: 20

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #94 on: September 22, 2021, 05:18:49 pm »

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hi,
On my ZVK I replaced the HDD with a SD card solution, see this post:
<https://www.eevblog.com/forum/testgear/rohde-schwarz-zvk-network-analyzer-wont-boot/msg3117922/#msg3117922>
Not sure it would work for you but its pretty cheap to try.

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N_basil

Newbie

Posts: 1

Country:



Re: Rohde & Schwarz FSEA 30

« Reply #95 on: Today at 09:38:37 am »

Say Thanks Reply Quote

Quote from: YetAnotherTechie on August 14, 2021, 05:52:11 pm

Please find the files here...

I hope you can help me with my problem)
I have a Rohde&S FSEM30 20 Hz-26.5 GHz. Unfortunately, it has a completely damaged HDD and I have been unable to extract information from it.
If possible, could you re-upload the disk image that you suggested in August 14, 2021?
Thanks and kind regards!

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