

From: [Alan Tan](#)
To: [Edwin Koh](#); [HuaZhen Luo](#)
Cc: [Christine Zhao](#); [Sue Jin Ng](#)
Subject: RE: CPSM Upgrade - PO
Date: Sunday, 29 November, 2020 05:42:49
Attachments: [image004.png](#)

Approved
Rdgs

From: Edwin Koh <Edwin_Koh@waters.com>
Sent: Saturday, 28 November, 2020 16:04
To: HuaZhen Luo <HuaZhen_Luo@waters.com>; Alan Tan <Alan_Tan@waters.com>
Cc: Christine Zhao <Christine_Zhao@waters.com>; Sue Jin Ng <Sue_Jin_Ng@waters.com>
Subject: RE: CPSM Upgrade - PO

Please see attached

From: Edwin Koh
Sent: Saturday, November 28, 2020 16:04
To: HuaZhen Luo <HuaZhen_Luo@waters.com>; Alan Tan <Alan_Tan@waters.com>
Cc: Christine Zhao <Christine_Zhao@waters.com>; Sue Jin Ng <Sue_Jin_Ng@waters.com>
Subject: RE: CPSM Upgrade - PO

Approved per request

From: HuaZhen Luo <HuaZhen_Luo@waters.com>
Sent: Friday, November 27, 2020 16:21
To: Edwin Koh <Edwin_Koh@waters.com>; Alan Tan <Alan_Tan@waters.com>
Cc: Christine Zhao <Christine_Zhao@waters.com>; Sue Jin Ng <Sue_Jin_Ng@waters.com>
Subject: FW: CPSM Upgrade - PO

Hi Edwin/Alan,

Please kindly review and approve this PO for PC purchase using for CPSM tester upgrade.

Thank you

Luo HuaZhen
Senior Test Engineer

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From: HuaZhen Luo

Sent: Friday, 27 November, 2020 10:58

To: Edwin Koh <Edwin_Koh@waters.com>; Alan Tan <Alan_Tan@waters.com>

Cc: Ee Ling Lim <ee_ling_lim@waters.com>; Christine Zhao <Christine_Zhao@waters.com>; WanLi Yee <WanLi_Yee@waters.com>

Subject: RE: CPSM Upgrade - Capex

Hi Alan/Ee Ling,

Thanks for approval.

Since the CEA # is assigned with WPPL20024, I will start to purchase PC and parts for this upgrade under CEA# WPPL20024.

Please let me know if there's any changes or things should take note.

Thank you

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From: Edwin Koh <Edwin_Koh@waters.com>

Sent: Monday, 23 November, 2020 21:17

To: HuaZhen Luo <HuaZhen_Luo@waters.com>; Alan Tan <Alan_Tan@waters.com>

Cc: Ee Ling Lim <ee_ling_lim@waters.com>; Christine Zhao <Christine_Zhao@waters.com>; WanLi Yee <WanLi_Yee@waters.com>

Subject: RE: CPSM Upgrade - Capex

Hi Alan,

I saw in the capex file for Nov the CPSM upgrade is approved with capex no# WPPL20024.

Could you help forward the approval email so that I can get HuaZhen to proceed with the ordering.

Thanks

Edwin Koh
Senior Operations Manager
Waters Pacific Pte Ltd

phone +65 6593 7409 Mobile +65 9117 7881
web www.waters.com email edwin_koh@waters.com
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From: HuaZhen Luo <HuaZhen_Luo@waters.com>
Sent: Thursday, November 19, 2020 15:13
To: Edwin Koh <Edwin_Koh@waters.com>; Alan Tan <Alan_Tan@waters.com>
Cc: Ee Ling Lim <ee_ling_lim@waters.com>
Subject: RE: CPSM Upgrade - Capex

Hi Alan,

Would you please kindly approve CEA for FTN testers upgrade as attached by this week?
As some of items such as PC and touchscreen display, we need to order from USA with long lead time to arrive Singapore.

We target to start this upgrade in Q1 2021.

Before this upgrade, we have order and get in these items as earlier as possible, otherwise project may delay.

Thank you

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From: Edwin Koh <Edwin_Koh@waters.com>
Sent: Monday, 16 November, 2020 16:12
To: Alan Tan <Alan_Tan@waters.com>
Cc: HuaZhen Luo <HuaZhen_Luo@waters.com>; Ee Ling Lim <ee_ling_lim@waters.com>
Subject: CPSM Upgrade - Capex

Hi Alan,

Please see the capex request for 8 x Venture FTN upgrade.
Total upgrade for 8 x test bays is \$27K.

Once approved, I will get HuaZhen to start procuring the parts by Q4 for progressive upgrade start Q1 2021.

Please note, this upgrade is undertaken by my side with Rick providing guidance.

Thanks
Edwin

From: HuaZhen Luo <HuaZhen_Luo@waters.com>
Sent: Monday, November 16, 2020 14:43
To: Edwin Koh <Edwin_Koh@waters.com>
Cc: Desmond Ann <Desmond_Ann@waters.com>
Subject: RE: CPSM Upgrade

Hi Edwin,

I have updated CEA as attached after last week discussion.
Please kindly review and feedback if it's ok.

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From: Edwin Koh <Edwin_Koh@waters.com>
Sent: Tuesday, 10 November, 2020 10:08
To: HuaZhen Luo <HuaZhen_Luo@waters.com>
Cc: Desmond Ann <Desmond_Ann@waters.com>
Subject: RE: CPSM Upgrade

Hi HuaZhen,

I felt this is a more accurate representation based on Rick's point below. We likely to own these upgrade so may as well establish our own vendors.

Thanks
Edwin

From: HuaZhen Luo <HuaZhen_Luo@waters.com>
Sent: Tuesday, November 3, 2020 11:30
To: Edwin Koh <Edwin_Koh@waters.com>
Cc: Desmond Ann <Desmond_Ann@waters.com>
Subject: RE: CPSM Upgrade

Hi Edwin,

I have search internet for list items. The attached is updated list with remarks.
Please kindly review and advise.

Thanks

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From: Edwin Koh <Edwin_Koh@waters.com>

Sent: Friday, 30 October, 2020 08:29

To: Richard Davis <Richard_Davis@waters.com>; Christine Smith
<Christine_Smith@waters.com>

Cc: HuaZhen Luo <HuaZhen_Luo@waters.com>; Desmond Ann <Desmond_Ann@waters.com>

Subject: RE: CPSM Upgrade

Hi Rick,

Noted, will work with HuaZhen based on below information and come back next week if any quires.

On 2 x tester upgrade for Arc FTN transfer, if you have a date on those please let us know and I can get my validation engineer to liaise with Emma on the IQ execution.

Thanks
Edwin

From: Richard Davis <Richard_Davis@waters.com>

Sent: Wednesday, October 28, 2020 20:07

To: Edwin Koh <Edwin_Koh@waters.com>; Christine Smith <Christine_Smith@waters.com>

Cc: HuaZhen Luo <HuaZhen_Luo@waters.com>; Desmond Ann <Desmond_Ann@waters.com>

Subject: RE: CPSM Upgrade

Hi Edwin,

I have a couple comments about Venture's Tester setup that we should consider.

1. Venture is using a very flexible/configurable work bench. But I don't think they are being used in an ergonomic fashion. Especially with the solvent waste container located in front of the keyboard. We can help them do better.
2. The 1U PC being used in this upgrade should fit nicely in their bench setup if they can provide a shelf just above the Interface Box. If so there will be no need for Item 19 on the BOM.
3. The Touchscreen Monitor will virtually eliminate the use of the keyboard and mouse. We recommend it be mounted on an articulating arm and located just above the UUT. See the attached photos. Most of our testers are already using a monitor arm, so I did not include this on the BOM. You should be able to source locally and include this in your BOM.

4. The Shadow Board will be mounted directly behind the UUT. It can be mounted to the same structure as the Monitor Arm.
5. I have no direct contacts for the companies we are buying from. They all have internet websites and can be contacted for purchasing information and preferred local distributors.
6. An IQ will be required before the test system is in compliance and ready to be used for production. Emma Pierce will be coordinating the execution of the IQ.

Regards

Rick

From: Edwin Koh <Edwin_Koh@waters.com>

Sent: Tuesday, October 27, 2020 6:24 PM

To: Christine Smith <Christine_Smith@waters.com>

Cc: Richard Davis <Richard_Davis@waters.com>; HuaZhen Luo <HuaZhen_Luo@waters.com>;
Desmond Ann <Desmond_Ann@waters.com>

Subject: RE: CPSM Upgrade

Hi Christine,

Please find attached. Could you or Rick confirm if these are all the items required and I can route for the approval.

For the Super Logics PC and Startech, do your side have a contact person that we can liaise with? We try to see if all purchased parts can be something we can locally source.

On a side note, could you advice for 2 x upgrade planned for Arc FTN transfer to Flex, when could Milford complete the upgrade and send us the 2 x system so that we can put timeline for the transfer? One aspect that we need to consider is validation of the testers given it has been upgrade.

Thanks and Best regards,
Edwin

From: Christine Smith <Christine_Smith@waters.com>

Sent: Friday, October 23, 2020 18:52

To: Edwin Koh <Edwin_Koh@waters.com>

Cc: Richard Davis <Richard_Davis@waters.com>; HuaZhen Luo <HuaZhen_Luo@waters.com>;
Desmond Ann <Desmond_Ann@waters.com>

Subject: RE: CPSM Upgrade

Hi Edwin - we have the capital to upgrade all CPSMs in Milford, so the 2 to be transferred to SG/CM are already covered in Milford's Capex. Our plan is to upgrade all NPI testers before the end of the year, ready to transfer in Q1.

I believe Rick will suggest we upgrade all CPSM testers, my understanding is that SG/CM have 8 total. We should coordinate plans to upgrade all. Start this year and finish in 2021.

Thanks,

Christine

From: Edwin Koh <Edwin_Koh@waters.com>
Sent: Thursday, October 22, 2020 6:42 PM
To: Christine Smith <Christine_Smith@waters.com>
Cc: Richard Davis <Richard_Davis@waters.com>; HuaZhen Luo <HuaZhen_Luo@waters.com>;
Desmond Ann <Desmond_Ann@waters.com>
Subject: RE: CPSM Upgrade

Hi Christine,

Good day!

Yes, we have capex, about \$20K allocated for Arc FTN final testers which can be used for this upgrade.

From our plan, we need about 4 x Arc FTN final testers. Think 2 x are to be transfer in Q1 from NPI so maybe we can upgrade those first.

Do you want us to raise a capex for 4 x Arc FTN final testers upgrade?

On the local sourced items, let me review the list with my team and come back by next Wed.

Thanks
Edwin

From: Christine Smith <Christine_Smith@waters.com>
Sent: Friday, October 23, 2020 02:12
To: Edwin Koh <Edwin_Koh@waters.com>
Cc: Richard Davis <Richard_Davis@waters.com>
Subject: CPSM Upgrade

Hi Edwin – Jaaffar mentioned that you may have some capital money available this year. Would you like to spend it on upgrading CPSM's?

I've attached the BOM, we could review and see which components make sense for your team to source locally.

Please review and let us know how you would like to proceed.

Best Regards,
Christine

Christine Smith
Operations Engineering Manager
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