

**From:** [philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg)  
**To:** [Poenar Daniel Puiu \(Assoc Prof\)](#)  
**Subject:** RE: NTU (EEE) / Hamamatsu inquiry  
**Date:** Thursday, 9 September 2021 1:58:01 PM

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Hi Daniel,

Sorry to have kept you waiting. Please refer to the following Hamamatsu's quote as requested. Do note that the lead time for some of the products are very uncertain at this moment due to the current global shortage relating to semiconductor products. Base on our current experience, lead time could be up to 9 months or more.

Part No.	Qty (MOQ)	Unit Price	Lead time
S1227-1010BQ	2	SGD 150	Unknown
S12698-02	2	SGD 120	4-6 weeks for 1-6pcs
S1337-21	2	SGD 1,025	Unknown
S4114-46Q	2	SGD 920	6-7 months for 1-6pcs
S5973-01	5	SGD 25	4-6 weeks for 5-6pcs
S12271	2	SGD 145	4-6 weeks for 5-6pcs
S9295	2	SGD 2,550	5.5 -6.5 for 1-6pcs
S3477-04	2	SGD 520	4-5 months for 1-6pcs
S8553	2	SGD 1,670	Unknown
S15249	5	SGD 750	6-8 weeks for 1-6pcs

- Model Number: S1227-1010BQ, S12698-02, S1337-21, S4114-46Q, S5973-01, S12271, S9295, S3477-04, S8553, S15249  
- Quantity: 2-6pcs each

Please do let me know if there is any questions.

Thank you.

Regards,  
Philip Ong

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**From:** Poenar Daniel Puiu (Assoc Prof) <EPDPuiu@ntu.edu.sg>  
**Sent:** Wednesday, 25 August 2021 12:04 PM  
**To:** ONG PANG KIAT PHILIP <philipong@hakuto.com.sg>  
**Subject:** RE: NTU (EEE) / Hamamatsu inquiry

OK, thanks!  
Daniel

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**From:** [philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg) <[philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg)>  
**Sent:** Wednesday, 25 August 2021 7:42 AM  
**To:** Poenar Daniel Puiu (Assoc Prof) <[EPDPuiu@ntu.edu.sg](mailto:EPDPuiu@ntu.edu.sg)>  
**Subject:** RE: NTU (EEE) / Hamamatsu inquiry

Hi Daniel,

Thank you so much for your explanation and information. Please let me inform Hamamatsu regarding this.

Please do give them some time, their Japan export screening process are usually very thorough and will require some time. Let me get back to you as soon as I can.

Regards,  
Philip Ong

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**From:** Poenar Daniel Puiu (Assoc Prof) <[EPDPuiu@ntu.edu.sg](mailto:EPDPuiu@ntu.edu.sg)>  
**Sent:** Tuesday, 24 August 2021 5:19 PM  
**To:** ONG PANG KIAT PHILIP <[philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg)>  
**Subject:** RE: NTU (EEE) / Hamamatsu inquiry  
**Importance:** High

Dear Mr. Philip Ong,

The relation to our end application is only the fact that your forwarded paper also uses fluorescence, but other than that not (m)any similarities. For instance, they use a pulsed laser with a relatively high pulse energy, which we are definitely not going to use, we want to use low-power LEDs or lasers (of LED size if possible). Also, they use photoacoustics, which we will not use at all, and also they have a very biological purpose in mind, namely visualization of fluorescent proteins deep within highly scattering tissues of living organisms (which is again totally not our target).

In contrast, as I may have indicated in a previous message, we will use UV light (of only several wavelengths, IF we can find BOTH suitable light sources -see my previous remark, and also my previous interest in DOWA's LEDs- and sensitive enough photodetectors (ideally an APD with a high but blue-shifted gain that peaks at ~400 nm instead of the typical 850...900 nm for usual devices – IF Hamamatsu has such APD sensor or even an array of them on a chip, please let me know the device code name and its price). This light will be used for both absorbance measurements as well as fluorescence, and the aim is to build a portable system with which to rapidly check water's quality after its processing in water purification plants, especially to check that complex biochemicals are no longer present in water. The attached paper indicates a few such biomolecules of interest, whose detection usually requires a big and bulky equipment with slow analysis time.

I hope this clarifies the issue for Hamamatsu.

Thanks a lot once again for your sustained kind patience and effort!

Best wishes,

Daniel

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**From:** [philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg) <[philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg)>  
**Sent:** Tuesday, 24 August 2021 1:03 PM  
**To:** Poenar Daniel Puiu (Assoc Prof) <[EPDPuiu@ntu.edu.sg](mailto:EPDPuiu@ntu.edu.sg)>  
**Subject:** RE: NTU (EEE) / Hamamatsu inquiry

Hi Daniel,

I am still following up on Hamamatsu screening process. They would like to check if the attached article may be related to your end application?

Thank you.

Regards,  
Philip Ong

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**From:** Poenar Daniel Puiu (Assoc Prof) <[EPDPuiu@ntu.edu.sg](mailto:EPDPuiu@ntu.edu.sg)>  
**Sent:** Tuesday, 17 August 2021 4:30 PM

**To:** ONG PANG KIAT PHILIP <[philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg)>

**Subject:** RE: NTU (EEE) / Hamamatsu inquiry

Sure, no problem, thank you very much!

Daniel

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**From:** [philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg) <[philipong@hakuto.com.sg](mailto:philipong@hakuto.com.sg)>

**Sent:** Tuesday, 17 August 2021 4:29 PM

**To:** Poenar Daniel Puiu (Assoc Prof) <[EPDPuiu@ntu.edu.sg](mailto:EPDPuiu@ntu.edu.sg)>

**Subject:** RE: NTU (EEE) / Hamamatsu inquiry

Hi Daniel,

I am still following up with Japan on this. Especially on the Hamamatsu's products which their screening process will usually takes some time.

Let me get back to you as soon as I have any updates.

Thank you.

Regards,  
Philip Ong

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