

Introducing Our New Coherent Product Manager: Charlie Fu

EFFECT Photonics' coherent technology portfolio has grown in the last two years, including coherent transceivers, laser sources, and digital signal processors. To lead this portfolio, EFFECT Photonics has hired Charlie Fu as our new Coherent Product Manager. To give you more insight into our new colleague and what drives him, we asked him a few questions.

Tell us a little more about yourself and your background.

So, my whole life is actually devoted to photonics. When I was a student in college, I studied optoelectronics, and my undergraduate project was doing a diode laser response curve. I also worked hard in graduate school with my supervisor in the lab to test coherent lasers back in the early 1990s when this technology was in its early stages. Back then, the laser was based on bulk micro-optics and could transmit for maybe 10 kilometers of distance. It was a significantly bigger package than now.

I was very lucky to start my career during an optical communications boom, working on fiber optic devices and modules with JDS Uniphase. I built my career there, starting with optical design and a lot of learning.

I then moved to a network company, Nortel Networks, designing links for long-haul transmission systems. We ensured the performance of the optical system and how to specify all the optical components modules to ensure the required performance. Nortel had a very ambitious project at the time. It was a technology challenge of transmitting 40G long haul transmission. Perhaps too ambitious, the year 2000 was perhaps too early still to go coherent.

So yeah, my whole career has been devoted to optics. From working as a hardware design engineer and learning all the optical transponder optical module design. Working with a few well-known brands such as Oclaro.

What did you find exciting about working for EFFECT Photonics?

So I think EFFECT Photonics has a good combination of people and technology, with many interesting technology innovations. The entrepreneurial drive to achieve success.

What attracted me the most was the core technology message of where *light meets digital*. If we look around, quite a lot of companies have photonics technology OR digital signal processing (DSP) technology. But almost no one has both IP for DSP and photonic technology. Having those IPs puts EFFECT Photonics in a very unique, prestigious position.

What do you find exciting about coherent technology and what has drawn you to it over your career?

I still believe coherent technology is in its infant stage in its application to optical communication. There are still a lot of things to do. For example, moving it to access network communications instead of just long haul. That's something EFFECT Photonics wants to do and why I'm very excited about the future of our coherent optics.

The coherent system implementation may have changed a lot and gotten smaller, but the technology, the core concept, it's still exactly the same as 30 years ago. I want to help develop these new systems with the new technology available to optics in the semiconductor sector.

I'm very excited to develop products that use these new technologies, hence why I am now in a Product Manager position.

I'm very excited to leverage my experience and knowledge and I'm very confident I can make a positive contribution to EFFECT Photonics in product design and development.

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