RFOptic Newsletter March 2021

Welcome to our first newsletter of 2021. It has been a busy first quarter for RFOptic, with the launching of new products and an incredible number of new customers. As a result, we are currently offering 30 products in various categories. Our expanded ODL product portfolio now consists of three groups, including our new Altimeter ODL for radar testing. We have launched a new phase-matched multi-channel 6GHz RFoF subsystem.

This quarter, we negotiated and closed some major deals, with main defense system integrators and universities purchasing our RFOptic customized ODL solutions with up to 1000 usec and 12 delay lines. We also fortified our position in the Radio Astronomical market with contracts and deployments in Germany, South Africa, Sweden, and China. Overall, the excellent performance of our ODL and Altimeter solutions resulted in repeated business from customers in the USA, Israel, India, Singapore, Korea, and Europe.

As the rollout of 5G worldwide keeps accelerating, we are addressing this new market with solutions at different levels and applications. We have already conducted several successful series of lab and field trials with Tier-1 5G integrators and we are aiming to be a major player in this field. To accomplish that, we are expanding our R&D efforts in response to the rapidly changing requirements and challenges.

We were able to shorten our delivery time. Most of our standard products can be delivered within 1 to 4 weeks.

Enjoy your read,
your RFOptic team.

RFOptic's Product Portfolio

Our product portfolio currently consists of three product lines and 30 offerings.

- Low Frequency programmable unidirectional and bi-directional products up to 6GHz
- High Frequency starting from DC up to 40GHz and higher
- ODL product line which also consist of 3 groups:
    1. ODL products, which cover L, S, and C bands and are based on low-cost direct modulation RFoF technology. These ODLs can be a single delay line ODL or a progressive ODL with up to 1000µs of cumulative delay and 12 or more main delay line segments creating 4096 or more delay states.
    2. ODL product line, which covers all frequencies from DC to X, Ku, K, and Ka up to 40GHz or more and that is based on indirect modulation technology. These ODLs have the same capabilities as the above ODLs and can be delivered with a single delay or a progressive ODL.

3. Our new Altimeter ODL operates up to 6GHz and is based on the very same ODL technology but with the special features suitable for Altimeter testing such as calibrated delay in feet or meters.

Currently, our ODLs are managed locally through a USB port. Our R&D department is currently working on having our ODLs also managed and monitored via HTML/SNMP/REST.

Our ODL product lines are deployed at companies such as Raytheon, LMCO, NGC, Thales, and Rafael, and most of the top universities and research institutes worldwide.

To learn more, click here.

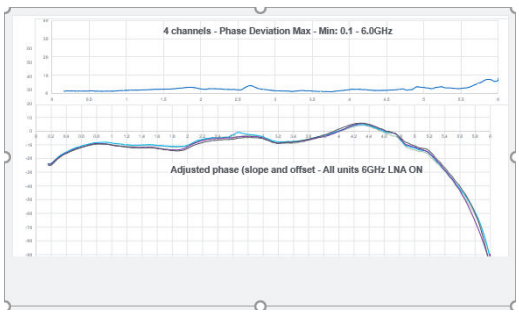
RFOptic and 5G

At RFOptic, we are investing major efforts to address the nascent 5G and 6G markets, since RF cables and RF switches perform poorly at the high 5G frequency bands. We are closely following frequent 5G specification updates, particularly regarding the frequency which for now is mainly below 6GHz. There is also an increasing interest in 24GHz, 39 GHz, and 43 GHz for 5G DAS applications that are required for high-speed applications such as telemedicine, autonomous vehicles, and IoT.

RFOptic has already successfully completed various trials with major global vendors. We have demonstrated that our RF over Fiber links are optimized to the requirements of the 5G market, with their wide bandwidth, high dynamic range, excellent noise figure, compatibility to FDD and TDD systems, and with local and remote management of optical and RF signals. Our 5G offerings have demonstrated excellent performance in EVM and ACPR under high-resolution modulations such as 256 QAM delivering well over 1000 LTE subscriber channels at once. Our 5G applications include optical switching as a replacement for RF switching infrastructure offering unlimited bandwidth and excellent performance compared to RF switches.

To learn more, visit our 5G webpage or download the white paper (no opt-in needed).

New! RFOptic has launched its 6GHz Subsystem



During Q1 of this year, we have released a new phase-matched multi-channel RFoF subsystem. The system is provided as a complete end-to-end RFoF product. This subsystem with 6 RFoF links achieves better than ± 6° of full band phase. We are currently streamlining the production operations of these kinds of phase-matched systems by automating measurement and production testing.

In general, our phase-matched RFoF links provide a superior platform for phase sensitive applications such as Direction Finding systems (DF). In combination with RFOptic RFoF programmable links, which have gain adjustment capability with 0.5dB resolution, it is possible for the first time to achieve both gain and phase match at once in one multi-channel RFoF system. This new offering will be available for ordering during April 2021.

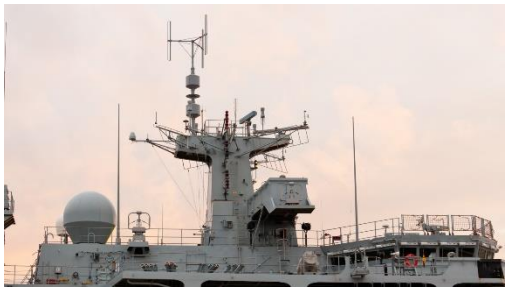
To learn more, click here.

New! RFOptic has launched its Altimeter Optical Delay Line (ALT ODL)

Also during Q1 of this year, we have launched our high frequency Altimeter Optical Delay Line. This new ALT ODL provides a high-performance solution for testing and calibration of radar altimeter systems. It is a compact solution providing superb signal performance and altitude simulation accuracy with an ultra-silent operation. The ALT ODL can be configured to emulate a single altitude or more than 4,096 altitude steps. The control and monitoring is done using a front panel, a navigation switch, and an LCD display or via a USB connection using RFOptic's configuration tool software. For automated testing applications, the USB API is available. In general, the ALT ODL offers very high accuracy up to 0.3ns for altitude steps under 6ft and around 0.1% above. The maximum altitude can reach 100,000 feet or 30Km in one enclosure.

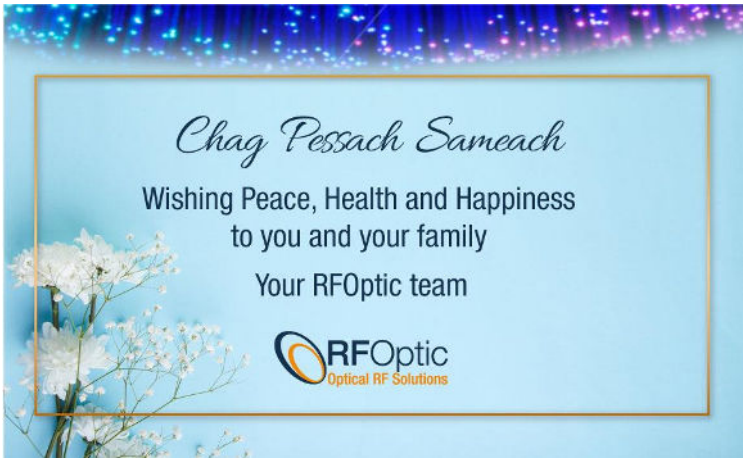
For more information, visit our webpage or download the datasheet.

RFOptic closed a deal with a Global Satellite Company for marine system integration



Under the agreement, RFOptic will provide its solutions for deployment on ships for upgrading the existing solutions. The deployment will consist of above deck outdoor antenna interfaces as well as the supporting below deck indoor components. RFOptic was selected for its unique capability of monitoring the signals remotely and for saving substantial OPEX in the setup and maintenance of the systems. Normally, system calibration has to be done manually and on site, a task which consumes a lot of time and money. Thanks to our sophisticated RFoF links, turning the complex multi-channel RF signals can be done remotely without onsite technical staff.

On a closing note, we wish you all happy holidays!



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