

**LUCEO** Technologies GmbH develops and manufactures communication test equipment in Berlin, Germany. Modular Bit Error Rate Testers from 1 – 14.4 Gbps are our specialty. The PARALLEX® test system is modularly expandable with a comprehensive number of functions such as Pattern Generators, Error Detectors, Clock Sources and various other electrical and optical plug-ins and therefore provides an All-In-One tester.



Latest part of the PARALLEX® is the

## High speed clock source module CLK20

It uniquely combines triple functionality in small size:

- Single clock source:** With an operating frequency range 78.125MHz ... 20GHz
- Clock divider:** Its optional trigger output DiV OUT delivers a divided clock signal output synchronous to the CLK OUT signal, perfect to trigger an oscilloscope
- Clock multiplier:** With this function an incoming low frequency clock (e.g. system clock) can be multiplied up to 128 times to help synchronize low speed with high speed applications (Find the app-note [Clock synthesis here](#))



## Welcome

Events in September 2013:

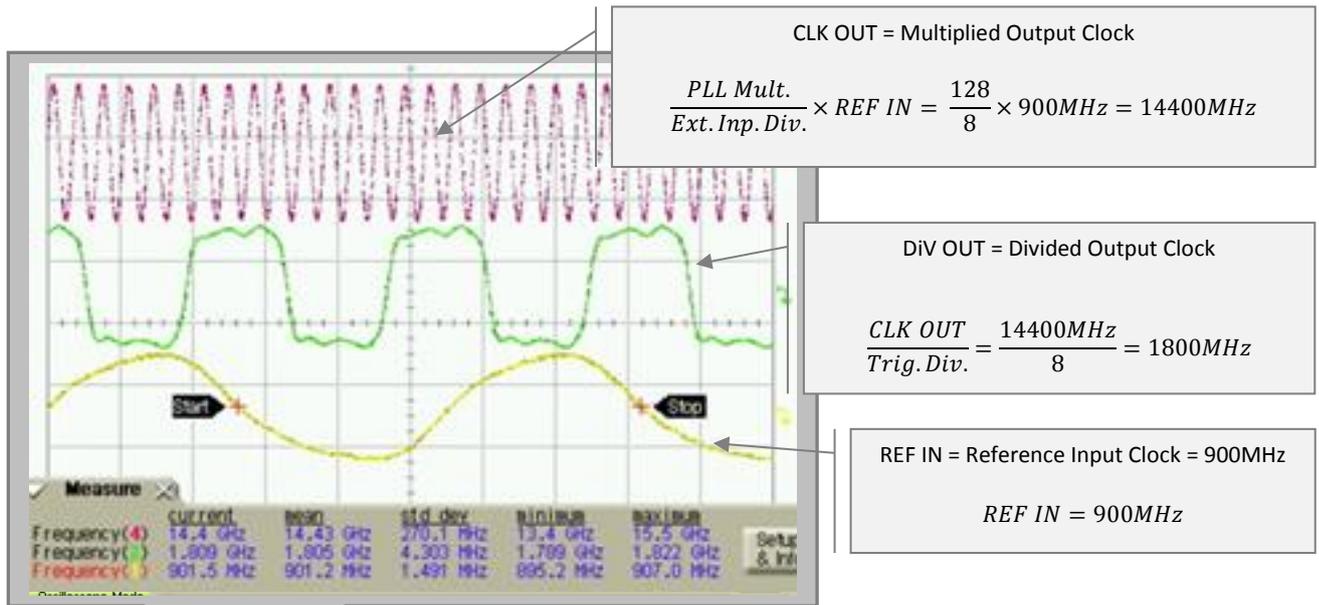
CIOE in Shenzhen, China, 04.-07.  
 Sep 2013 Booth 1A09-5  
 German Pavilion

ECOC in London, Great Britain, 23.-  
 25. Sep 2013, Booth 218  
 German Pavilion

Some more information you find on our website.

[High speed clock source CLK20](#)

Please see the **CLK20** output signal driven by a low speed input clock like **CLK6** module at REF IN.



CLK OUT = Multiplied Output Clock

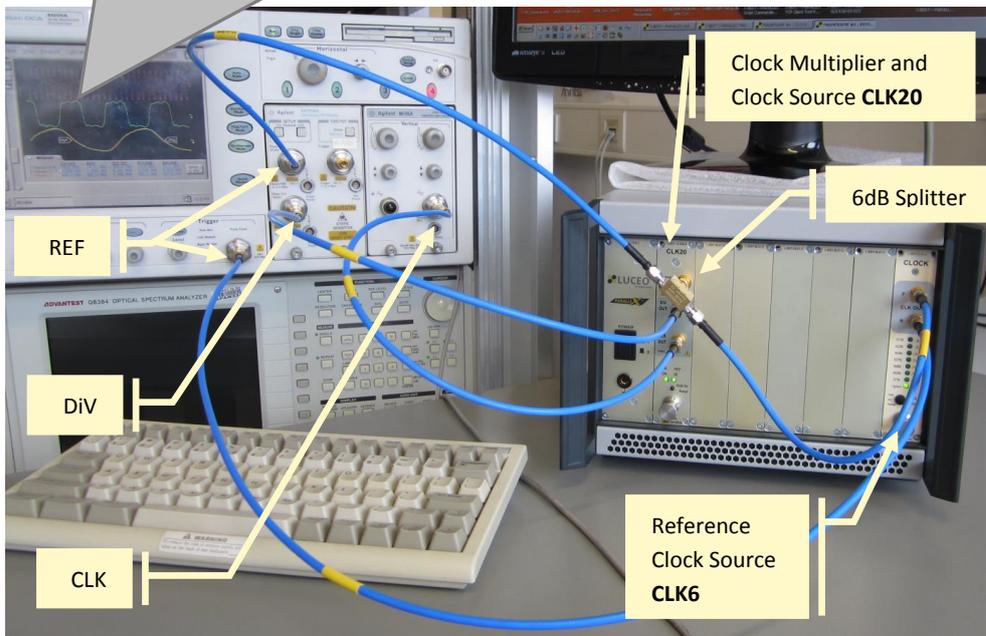
$$\frac{PLL \text{ Mult.}}{Ext. Imp. Div.} \times REF IN = \frac{128}{8} \times 900MHz = 14400MHz$$

DiV OUT = Divided Output Clock

$$\frac{CLK OUT}{Trig. Div.} = \frac{14400MHz}{8} = 1800MHz$$

REF IN = Reference Input Clock = 900MHz

$$REF IN = 900MHz$$



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For a configuration recommendation and quote please contact our sales partner or send an email to [sales@LUCEOtec.com](mailto:sales@LUCEOtec.com)



Get more information from the web [www.LUCEOtec.com](http://www.LUCEOtec.com)

**About LUCEO**

LUCEO Technologies GmbH was created by engineers involved in electrical circuit and optical transceiver design, who recognized critical gaps in test and measurement equipment for optical component and transceiver characterization. LUCEO's test system is the first to combine a complete BERT test solution, with affordable cost and German build quality. Targeted at high volume production test applications, LUCEO's equipment optimizes speed and ease-of-use, allowing users to achieve minimum cost-per-test. Founded in 2005, LUCEO is headquartered in Berlin, Germany.