

# BiBurst

## Tunable GHz and MHz burst with burst-in-burst capability

PHAROS and CARBIDE 40W (CB3) have an option for tunable GHz and MHz burst with burst-in-burst capability – called BiBurst. The distance between burst packet groups is called nanosecond burst, N (MHz-Burst). The distance between sub-pulses in the group is called picosecond burst, P (GHz-Burst).

In single pulse mode, one pulse is emitted at a time at some fixed frequency. In burst mode, the output consists of several picosecond burst packets each separated by an equal time period between each packet. Each packet can contain a number of sub-pulses which are also separated by an equal time period between each pulse.

High pulse energy femtosecond lasers PHAROS and CARBIDE with flexible BiBurst functionality bring new production capabilities to high-tech manufacturing industries such as consumer electronics, integrated photonic chip manufacturing, stent cutting, surface functionalization, future displays manufacturing and quantum computing.

BiBurst material fabrication areas cover:

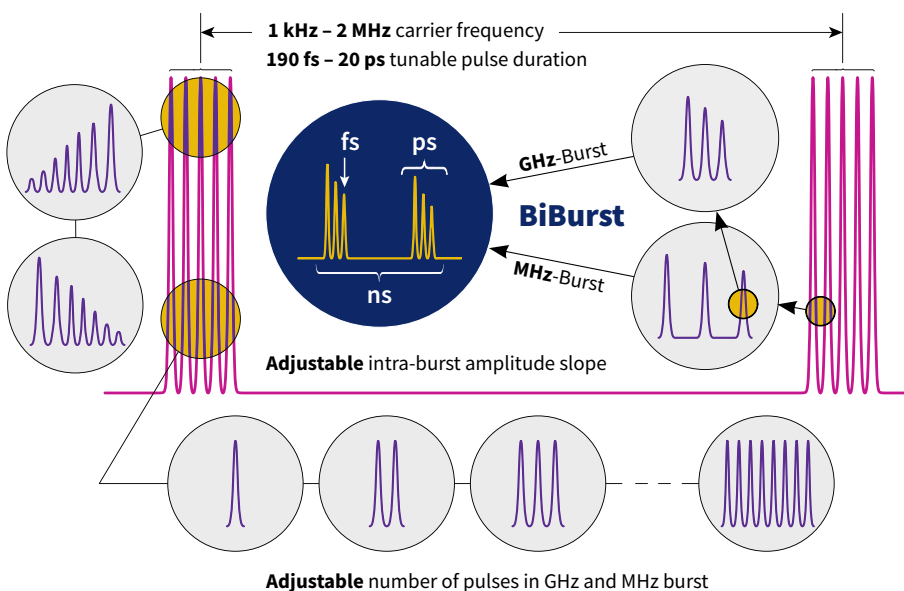
- brittle material drilling and cutting
- deep engraving
- selective ablation
- transparent materials volume modification
- hidden marking
- surface functional structuring.

### SPECIFICATIONS

Model		CARBIDE-CB3 (40 W)	PHAROS	PHAROS-SP
P, GHz-mode	Intra burst pulse separation <sup>1)</sup>	~440 ± 40 ps	~200 ± 40 ps	~500 ± 40 ps
	Max no. of pulses <sup>2)</sup>	1..10	1..25	1..10
N, MHz-mode	Intra burst pulse separation	~16 ns		
	Max no. of pulses	1..10	1..9, (7 with FEC)	1..9, (7 with FEC)

<sup>1)</sup> Custom spacing on request.

<sup>2)</sup> Maximum number of pulses in a burst is dependent on the laser repetition rate. Custom number of pulses on request.



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