

# 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 laser with flexible BiBurst functionality brings 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:

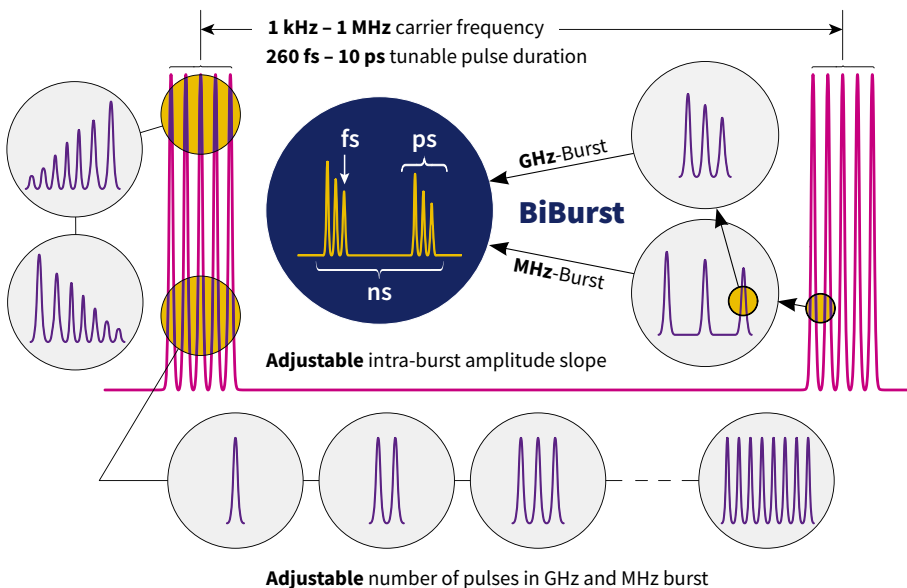
- brittle material drilling and cutting
- deep engraving
- selective ablation
- transparent materials volume modification
- hidden marking
- surface functional structuring.

### 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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