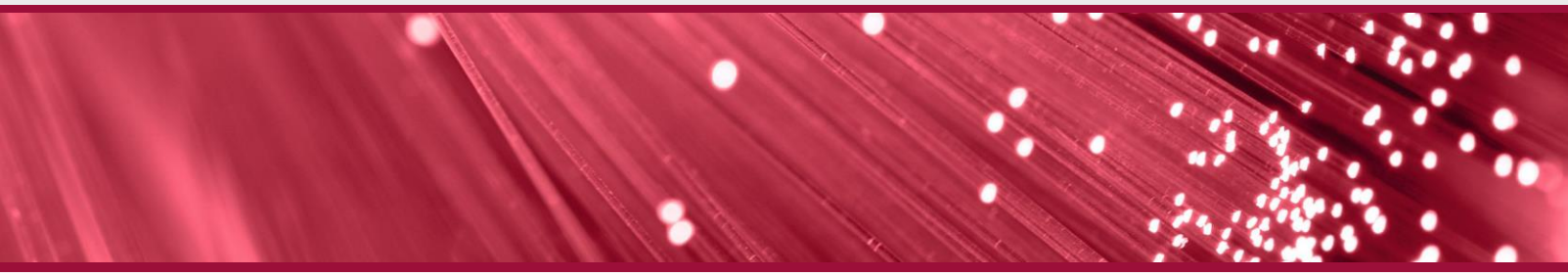
# ADD-ON: **Burst** & **Fast Switch**

activefiber systems

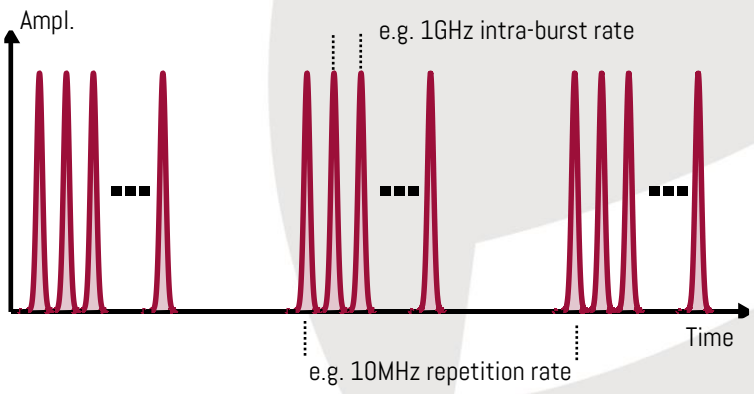


## ADD-ON: GHz-BURST

Materials processing at highest average power might lead to an unwanted thermal load into the work piece even when using femtosecond pulses. Applying a GHz-pulse burst structure instead of an energetic single pulse holds the promise to significantly reduce the thermal load due to ablation cooling, therefore, enhances processing quality and speed. AFS ultrafast fiber-laser systems can be operated in a patented burst mode with negligible variation of pulse duration over the burst and with a flexible pulse structure.

| | |
|---|---|
| Number of pulses | 2, 4, 8, 16, 32, 64, 128 |
| Intra-burst repetition rate | up to 10 GHz |
| Variation of pulse duration | < 3% at 250 fs |
| Variation of pulse energy | < 5% |

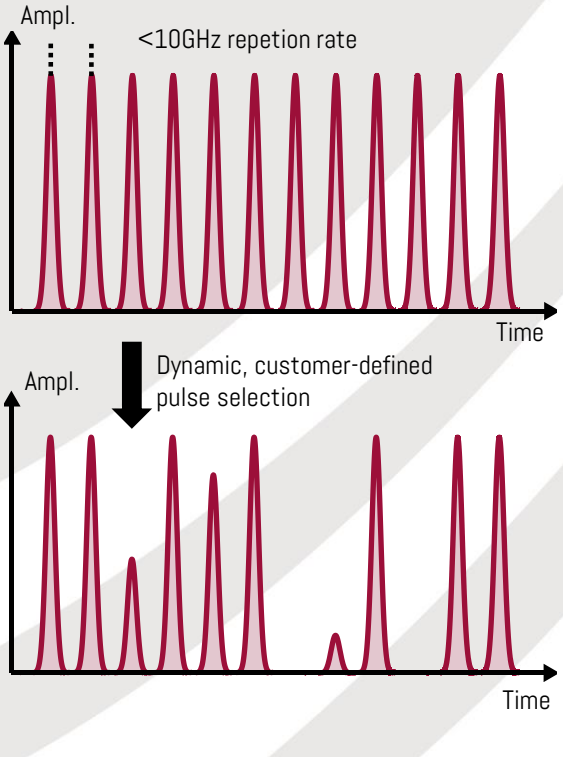
GHz-burst parameters




## ADD-ON: FAST SWITCH & MODULATION

The fast pulse-switching feature provides an optional extension of the laser's capability.

Single-pulse selection can be achieved up to 10 GHz repetition rate with this patented technology. Full control over the pulse sequence is guaranteed on both their occurrence and their amplitude, which can be adapted to the customers needs. Most important, the ultrafast modulator works at highest average power levels (kW and beyond) without any detrimental effects on the laser characteristics.

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