

## PICOSECOND PULSED POWER BASED ON SOS+MCL APPROACH

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Ferrite gyromagnetic nonlinear transmission lines (NLTLs) are used to convert the input video pulse into an output radiofrequency pulse, i.e. operate as a microwave generator [1, 2]. Typical frequency of the generated oscillations is in the range of units of GHz with a peak power of hundreds of MW. In the past several years, it has been shown that under certain conditions, NLTL can operate not as a microwave generator, but as an input pulse power amplifier. Lines operating in this mode were called MCLs (Magnetic Compression Lines). In combination with the solid state input pulse generator (SOS generator), such lines made it possible to implement the SOS+MCL approach for creating solid state picosecond pulsed power systems with a peak power of tens of GW [3–6].

This report presents an overview of the systems based on SOS+MCL approach and shows the last results achieved in this area.

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