

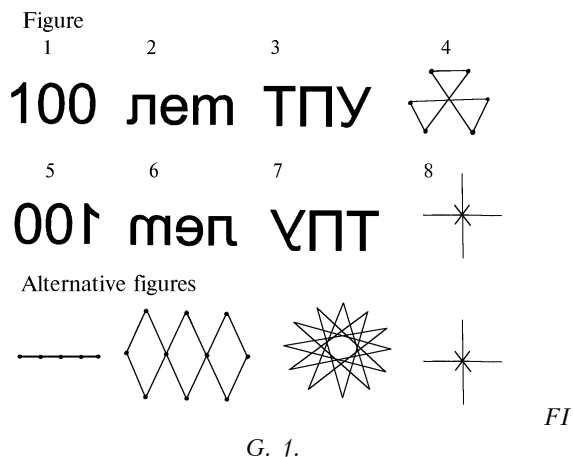
LASER SHOW SYSTEM FOR WRITING TEXT INFORMATION

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Laser show system (LSS-01) including a copper-bromide-vapor laser and a beam scanning device is designed to write text information and various figures on screens, walls, and low dense clouds.

Text information and specimen figures are selected according to individual orders and stored in the scanning device control unit. Information is displayed by alternatively writing words or figures. An example of such information, prepared and demonstrated in May 1996 at the centenary of Tomsk Polytechnic University, is shown in Fig. 1. Picture can be presented in green and yellow colors or in two colors in turn.



Note: Figures 5, 6, 7, 8 were generated with an output mirror (for writing on clouds). Instead of the figures 1, 2, 3, 4 or 5, 6, 7, 8, alternative figures can be generated provided that MC chips are changed.

Show system can be constructed to suit an individual order or leased.

Specifications of LSS-01

Wavelengths, nm	510.6, 578.2
Mode of operation	repetitively pulsed
Pulse repetition frequency, kHz	20
Pulse length, ns	30
Mean output power, W	5
Beam divergence, mrad	0.5
Beam diameter, mm	12
Time of reaching operation mode, min	20
Typical dimensions of a picture at a distance of 50 m, mm×mm	from 1000×1000 up to 6000×6000
Size, mm:	
– emitter and scanning device	1600×190×190
– power supply unit	474×474×575
– remote control panel	300×250×100
Mass, kg:	
– radiator and scanning device	15
– power supply unit	30
– remote control panel	3.5
Required power (a/c line, 220 V/50 Hz), kW	< 2.0
Cooling	forced air
Time of continuous operation, h	8
Service life (with a spare active element), h	1000

We are interested in collaboration to develop a new version of the system with the matrix principle of writing large arrays of information.