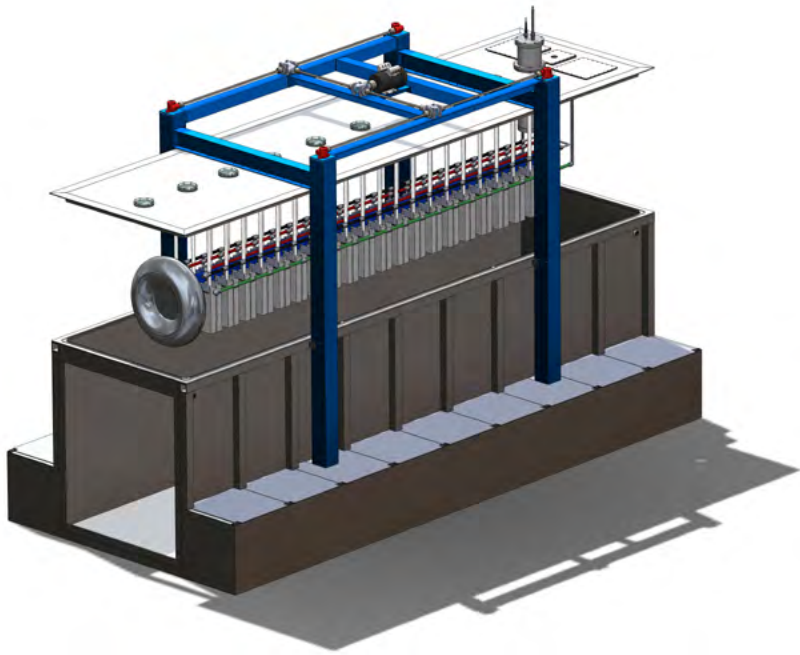
APELC
APPLIED PHYSICAL ELECTRONICS, L.C.

SPECIALIZED
MARX GENERATORS

The leading name in compact Marx Generators since 1998, APELC focuses on high-power and high-voltage pulse generators in low inductance configurations for faster rise times, higher peak voltages, and increased load voltage efficiencies.

APELC's Marx Generators operate in a variety of pulsed power applications, from flash X-ray, HPRF, and HPM, to test and evaluation (T&E), triggering, and material studies.



Key Benefits

- Erected voltages up to several Megavolts (MV), with low source impedance, resulting in high system efficiency
- Energy storage from millijoules (mJ) up to kilojoules (kJ)
- Ultrafast rise times as low as 200 picoseconds (ps)
- Compact, portable versions for easy transport and durable field testing
- Unique geometric configurations tailored to customer preferences and requirements

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Marx Generator Part Number Description

Model	Typical Application	Max. Open Circuit Voltage	Erected Capacitance	Rise Time	Pulse Width (FWHM)	Source Impedance	Energy per Pulse	Peak power	Max. Rep rate
MG17-1C-500PF	Direct RF	510 kV	29 pF	0.2 ns	8 ns	160 Ω	3.8 J	400 MW	20 Hz
MG17-1C-940PF	Direct RF	510 kV	55 pF	0.3 ns	13 ns	125 Ω	7.2 J	520 MW	20 Hz
MG10-1C-2700PF	Triggering	300 kV	270 pF	5 ns	35 ns	40 Ω	12.2 J	560 MW	20 Hz
MG15-3C-940PF	RF, Triggering	600 kV	188 pF	3 ns	25 ns	50 Ω	33.8 J	1.8 GW	100 Hz
MG16-3C-2700PF	Pulse charging	600 kV	540 pF	15 ns	50 ns	23 Ω	97.2 J	4 GW	100 Hz
MG40-3C-2700PF	Flash X-ray	1600 kV	200 pF	20 ns	50 ns	70 Ω	259.2 J	9 GW	20 Hz
MG20-22C-2000PF	HPM, Pulse charging	800 kV	2.2 nF	20 ns	80 ns	18 Ω	704 J	9 GW	20 Hz
MG20-1C-100NF	HPM, Pulse charging	400 kV	5 nF	20 ns	200 ns	23 Ω	400 J	1.7 GW	20 Hz
MG30-3C-100NF	HPM, Pulse charging	600 kV	10 nF	90 ns	400 ns	33 Ω	1800 J	2.7 GW	20 Hz
MG30-1C-100NF	HPM, Pulse charging	600 kV	3.3 nF	25 ns	150 ns	40 Ω	600 J	2.2 GW	20 Hz
MG83-1C-150NF	HPM, Pulse charging	4150 kV	1.8 nF	180 ns	270 ns	70 Ω	15000 J	61.5 GW	0.2 Hz
MG10-1C-150NF	MIL STD Testing	300 kV	15 nF	15 ns	525 ns	60 Ω	675 J	1.5 GW	0.2 Hz