

## Generator Specifications

Generator Specifications	Gemini X2	Gemini SC
<b>Square Wave Pulse Ranges</b>		
<b>Voltage Range</b>		
LV Mode	5-500 in 1 V steps	10-500 V in 5 V steps
HV Mode	505-3000 in 5 V steps	510-3000 in 10 V steps
<b>Voltage Accuracy</b>		
LV Mode	5%	5%
HV Mode	5%	5%
<b>Pulse Length Range</b>		
LV Mode	10-999 $\mu$ s in 1 $\mu$ s step, 1-999 ms in 1 ms step	0.05-10 ms in 0.05 ms steps, 10-100 ms in 1 ms step
HV Mode	10-600 $\mu$ s / 1 $\mu$ s step	50 $\mu$ s-5 ms in 50 $\mu$ s steps
<b>Multiple Pulsing</b>		
LV Mode	1-10 pulses per sample	1 to 10
HV Mode	1-3 pulses per sample	1 to 2
Pulse Interval	0.1 s to 10 s	0.1 s to 10 s
<b>Capacitance in <math>\mu</math>F</b>		
LV Mode	3775 $\mu$ F	3775 $\mu$ F
HV Mode	85 $\mu$ F	85 $\mu$ F
<b>Voltage Droop</b>	20% Load < 1 K $\Omega$ , 10% Load > 1 K $\Omega$	20% Load < 1 K $\Omega$ , 10% Load > 1 K $\Omega$
<b>Exponential Decay Pulse Ranges</b>		
<b>Voltage Range</b>		
LV Mode	5-500 in 1 V steps	10-500 in 5 V steps
HV Mode	505-3000 in 5 V steps	510-3000 / 10 V steps
<b>Voltage Accuracy</b>		
LV Mode	5%	5%
HV Mode	5%	5%
<b>Time Constant Range</b>		
LV Mode	1 ms to 5.158 s	1.25 ms to 3.275 s / 1.25 ms
HV Mode	0.5 ms to 133.875 ms	0.5 ms to 50 ms / 0.5 ms
<b>Multiple Pulsing</b>		
Multiple Pulsing	1 to 2 depending on device's current amplitude limit	No
Pulse Interval	5 to 30 s	N/A
<b>Capacitance in <math>\mu</math>F</b>		
LV Mode	25-3275 $\mu$ F in 25 $\mu$ F steps	25-3275 $\mu$ F in 25 $\mu$ F steps
HV Mode	10, 25, 35, 50, 60, 75, 85 $\mu$ F	10, 25, 50 $\mu$ F
<b>Available Internal Resistance Selections</b>		
All Modes	LV 25-1575 $\Omega$ in 25 $\Omega$ steps, HV 50-1575 $\Omega$ in 25 $\Omega$ steps	50-1000 $\Omega$ in 50 $\Omega$ steps
<b>Sample Resistance (Load) Exponential Decay or Square</b>		
LV Mode	PL $\leq$ 100ms, load $\geq$ 8-9 $\Omega$ , PL >100ms, load $\geq$ 100 $\Omega$	Load $\geq$ 10 $\Omega$
HV Mode	Load $\geq$ 40 $\Omega$	510-2500 Load $\geq$ 20 $\Omega$ , 2500 to 3000 V, Load $\geq$ 600 $\Omega$
<b>Other Specifications</b>		
Charging Time	LV < 7 s, HV < 4 s	LV < 7 s, HV < 4 s
Monitoring	Pulse Voltage, Width, Droop % and Sample Resistance	Pulse Voltage, Width, Droop % and Sample Resistance
Display	4.3 in color display	4.3 in color display
Controls	Touch Screen	Touch Screen
Programmability	Storage over 1000 Protocols	Storage over 1000 Protocols
Arc Control	Yes	Yes

# Generator Specifications

Generator Specifications (V7)	Gemini X2	Gemini SC
<b>Other Specifications (continued)</b>		
Interlock Switches	Yes	Yes
Pre-Pulse Sample resistance check	Yes	Yes
Pulse Over Current Protection	Yes	Yes
PC control	Yes	No
PC communications	Yes	No
Log Report	Yes	No
Remote Operation	Yes	No
Foot Switch Control	Yes	No
Power Ratings	35 W idle and 350 W pulsing	35W idle and 350 W pulsing
Input Voltage ratings	100 to 240 VAC	100 to 240 VAC
CE, ETL Marking, CB Scheme, EuRoHS	Yes	Yes
Dimensions (H x W x D) inches	12.75 x 11.25 x 8.5	12.75 x 11.25 x 8.5
Weight	~ 16 lb	~ 16 lb
Warranty	2 years	1 year
<b>Atmospheric Specifications</b>		
Operating Temperature	4°C to 40°C (40°F to 104°F)	
Storage Temperature	-10°C to 70°C (14°F to 158°F)	
Operating Humidity	See Chart Below	
Storage Humidity	20% to 80% RH, non condensing	
<b>Mode of Operation</b>	Continuous	
<b>Classification</b>	Class I	
<b>Pollution</b>	Degree I	
<b>Installation</b>	Category II	
<b>Supplier Name</b>	BTX	
<b>Supplier Address</b>	84 October Hill Rd., Holliston, MA 01746	
<b>Supplier Phone Number</b>	508-893-8999	
<b>Regulatory Certifications</b>	CE, ETL (UL, CSA), WEEE, EU RoHS & CB Scheme	
<b>Safety Declarations</b>	ANSI/UL 61010-1:2012 Ed. 3 Rev. 2012 ; CAN/CSA C22.2 No. 61010-1:2012 Ed. 3 ; IEC 61010-1:2001 Ed. 2 Corrigendum 1:2002, Corrigendum 2:2003 ; CENELEC EN 61010-1:2001 ; CB Scheme	
<b>EMC Declarations</b>	IEC 61326-1 Ed. 1	
<b>FCC</b>	47 CFR Part 15, class B	

