

# PULSE POWER AMPLIFIERS 1 GHz to 2 GHz

## Up to 50 KW output power



### USER BENEFITS

- ✓ High power, high and flat gain
- ✓ Solid state amplifiers
- ✓ High VSWR operation
- ✓ High reliability
- ✓ Wide RF bandwidth
- ✓ Low harmonic distortions
- ✓ Worldwide services

### AREAS OF APPLICATION

- ✓ EMC tests
- ✓ Radar systems
- ✓ Communications (CDMA,W-CDMA,GSM...)
- ✓ TWT replacement
- ✓ Particules accelerators

### MAIN CHARACTERISTICS

- ✓ SSPxG-1G2-x Models are self-contained, forced air cooled (Water cooling on W option), broadband GaN amplifiers
- ✓ The front panel digital display shows forward and reflected pulsed power and system status information's.
- ✓ Standard features include a built-in IEEE-488 and Ethernet interface.
- ✓ Standard 19"
- ✓ Operating temperature 0°C to 35° C (-10 °C to 50°C on T option)
- ✓ Storage temperature -10°C à 50°C (-20 °C to 70°C on T option)
- ✓ Humidity until 95% (non-condensing)

OVERVIEW			
Model	Rated Power (*)	Pulse width	Duty cycle
SSP1-1G2-A	1kW	0.1-50µs	5%
SSP2-1G2-A	2kW	0.1-50µs	5%
SSP2-1G2-B	2kW	0.1-100µs	10%
SSP5-1G2-A	5kW	0.1-50µs	5%
SSP6-1G2-A	6kW	0.1-100µs	10%
SSP7-1G2-A	7kW	0.1-10µs	1%
SSP10-1G2-A	10kW	0.1-50µs	5%
SSP20-1G2-A	20kW	0.1-10µs	1%
SSP20-1G2-B	20kW	0.1-50µs	5%
SSP50-1G2-A	50kW	0.1-50µs	5%

(\*): Minimum mean power in the pulse, measured on 50 Ohms load, VSWR < 1.3:1

## SPECIFICATIONS

	SSP1-1G2-A	SSP2-1G2-A	SSP2-1G2-B	SSP5-1G2-A	SSP6-1G2-A	SSP7-1G2-A	SSP10-1G2-A	SSP20-1G2-A	SSP20-1G2-B	SSP50-1G2-A
Pulsed saturated output power										
Minimum (Watts)	1000	2000	2000	5000	6000	7000	10 000	20 000	20 000	50 000
Typical (Watts)	1200	2300	2300	5400	6600	7500	12 500	23 000	23 000	52 000
Mini. @3dB compression (Watts)	930	1820	1820	4550	5470	6430	9 400	18 000	18 000	45 000
Mini. @1dB compression (Watts)	700	1400	1400	3600	4300	5 000	7 000	14 000	14 000	36 000
Input for rated output (dBm)	0	0	0	0	0	0	10	10	10	10
Instantaneous frequency response (GHz)	0.9-2									
Gain (dB)	60 min.	63 min	63 min	67 min	67.8 min	68.5 min	60 min	70 min	70 min	77 min
Flatness (small signal to saturation) (dB)	+/-2 max.									
Gain adjustment (dB)	20									
Harmonic distortion at -1 dB compression (dBc)	-22 max.	-22 max	-22 max	-20 max	-20 max	-20 max	-20 max	-20max	-20 max	-20 max
Noise figure (dB)	12	12	12	15	15	15	15	15	15	15
Spurious (dBc)	<-60									
Typical phase linearity (°/100MHz)	+/- 4									
Input impedance (Ω)	50									
Output impedance (Ω)	50									
Mismatch VSWR tolerance										
Output RF sample ports (forward & reverse) (dB)	50	50	50	60	60	60	60	70	70	70

	SSP1-1G2-A	SSP2-1G2-A	SSP2-1G2-B	SSP5-1G2-A	SSP6-1G2-A	SSP7-1G2-A	SSP10-1G2-A	SSP20-1G2-A	SSP20-1G2-B	SSP50-1G2-A	
Pulse Capability											
Pulse width (µs)	0.1 to 50	0.1 to 50	0.1 to 100	0.1 to 50	0.1 to 100	0.1 to 10	0.1 to 50	0.1 to 10	0.1 to 50	0.1 to 50	
Pulse Rate (KHz)	0 to 50										
Duty cycle (%)	5 max.	5 max.	10 max.	5 max.	10 max.	1 max.	5 max.	1 max.	5 max.	5 max.	
RF rise and fall (ns)	30 max.										
Pulse off isolation (dB)	80 minimum										
Pulse input	TTL										
Primary power											
Primary power voltage (Vac)	Single phase 100-264	Single phase 100-264	Single phase 100-264	Single phase 100-264	Single phase 100-264	Single phase 100-264	Single phase 100-264	Single phase 100-264	Single phase 100-264	three phases 100-264	three phases 100-264
Primary power frequency (Hz)	47 to 63										
Power consumption (W max.)	500	1000	1800	2200	3900	1000	4500	2600	10 000	22 000	
Cooling											
Cooling	Air	Air	Air	Air	Air	Air	Air	Air	Air	water	
Working temperature (°C)	0 to 35										
Storage temperature (°C)	-10 to 50										
RF connectors											
RF input connector (Front)	N fem										
RF output connector (Rear)	7/16 fem	7/16 fem	7/16 fem	7/16 fem	7/16 fem	7/16 fem	TBD	TBD	TBD	TBD	
RF output sample ports (Rear)	N fem										
Pulse input connector (Rear)	N fem										
Interface connectors (Rear)	IEEE488										
Primary power connector (Rear)	CEI320	CEI320	CEI320	CEI320	CEI320	CEI320	CEI320	CEI320	DS3	DS3	
Number of unities (U)	4	5	5	12	15	10	24	15	42	2 x 42	
Size (WxHxD) (cm)	50.3x18x58	50.3x22x58	50.3x22x58	50.3x53x72	50.3x75x72	50.3x55x72	50.3x120x72	50.3x75x90	50.3x205x90	50.3x205x90	
Weight (Kg)	26	44	52	160	280	150	420	280	650	2 x 650	