

PULSE POWER AMPLIFIERS

2 GHz to 4 GHz

Up to 80 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-2G4-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
SSP1-2G4-A	1 kW	0.1-50 µs	4 %
SSP2-2G4-A	2 kW	0.1-50 µs	4 %
SSP2-2G4-B	2 kW	0.1-100 µs	10 %
SSP5-2G4-A	5 kW	0.1-50 µs	4 %
SSP6-2G4-A	6 kW	0.1-100 µs	10 %
SSP10-2G4-A	10 kW	0.1-50 µs	4 %
SSP10-2G4-B	10 kW	0.1-100 µs	10 %
SSP20-2G4-A	20 kW	0.1-50 µs	4 %
SSP25-2G4-A	25 kW	0.1-5 µs	1 %
SSP80-2G4-A	80 kW	0.1-5 µs	1 %

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

SPECIFICATIONS

	SSP1-2G4-A	SSP2-2G4-A	SSP2-2G4-B	SSP5-2G4-A	SSP6-2G4-A	SSP10-2G4-A	SSP10-2G4-B	SSP20-2G4-A	SSP25-2G4-A	SSP80-2G4-A
Pulsed saturated output power										
Minimum (Watts)	1 000	2 000	2 000	5 000	6 000	10 000	10 000	20 000	25 000	80 000
Typical (Watts)	1 200	2 300	2 300	5 400	6 600	12 500	12 500	23 000	27 000	84 000
Mini. @3dB compression (Watts)	930	1 820	1 820	4 550	5 470	9 400	9 400	18 000	21 000	74 000
Mini. @1dB compression (Watts)	700	1 400	14 00	3 600	4 300	7 000	7 000	14 000	18 000	62 000
Input for rated output (dBm)	0	0	0	0	0	10	10	10	10	10
Instantaneous frequency response (GHz)	2-4									
Gain (dB)	60 min.	63 min	63 min	67 min	67.8 min	60 min	60 min	63 min	64 min	70 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

	SSP1-2G4-A	SSP2-2G4-A	SSP2-2G4-B	SSP5-2G4-A	SSP6-2G4-A	SSP10-2G4-A	SSP10-2G4-B	SSP20-2G4-A	SSP25-2G4-A	SSP80-2G4-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 50	0.1 to 100	0.1 to 50	0.1 to 5	0.1 to 5	
Pulse Rate (KHz)	0 to 50										
Duty cycle (%)	4 max.	4 max.	10 max.	4 max.	10 max.	4 max.	10 max.	4 max.	1 max.	1 max.	
RF rise and fall (ns)	30 max.										
Pulse off isolation (dB)	80 minimum										
Pulse input	TTL										
Power and Frequency											
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	Single phase 100-264	three phase 100-264
Primary power frequency (Hz)	47 to 63										
Power consumption (W max.)	600	1000	1900	2400	4500	4700	11 000	9200	4300	16 000	
Cooling and Temperature											
Cooling	Air	Air	Air	Air	Air	Air	water	water	Air	water	
Working temperature (°C)	0 to 35										
Storage temperature (°C)	-10 to 50										
Connectors and Interfaces											
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	7/16 fem	7/16 fem	EIA flange	EIA flange	EIA flange
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	DS3	DS3	CEI320	DS3
Number of unities (U)	4	6	8	15	26	30	35	2 x 35U	42	3 x 42	
Size (WxHxD) (cm)	18x58	26x58	35x58	75x72	130x72	150x72	150x72	170x90	205x90	205x90	
Weight (Kg)	36	65	82	160	280	150	420	280	650	3 x 650	