


Pulsed High Power Amplifier

Product Name : ACA5459P61C0

Doc. Name : Preliminary Short Spec.

<p style="text-align: center;">Preliminary Short Specification for ACA5459P61C0</p>

ELECTRICAL SPECIFICATIONS		@ 50 Vdc, 50 ohms load condition, Tc = 25 °C		
Parameter	Specification	Remark		
Frequency Range	5400 ~ 5900 MHz			
Peak Output Power	1.2 kW min.	With PW = 100usec, Duty = 10%		
Small Signal Gain	13 dB typ., 12 dB min	@ Input Power = -15 dBm with Pulsed Signal		
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Large Signal Gain	9 dB typ., 8 dB min	@ Input Power = 52 dBm with Pulsed Signal
Gain Flatness	± 0.5 dB max.	@ Input Power = 52 dBm with Pulsed Signal
Duty Cycle	10 % max.	
Pulse Width (PW)	100 usec max.	
Amplitude Droop	0.5 dB typ. 1.0 dB max.	@ Input Power = 52 dBm with Pulsed Signal
Harmonics(H2, H3)	Better than -40 dBc	In band
Spurious	Better than -60 dBc	In band
Input / Output VSWR	Less than 1.8:1	
Maximum load VSWR for amplifier working	5 : 1	Works with degraded performance
Harmonics(H2, H3)	Better than -40 dBc	In band
Spurious	Better than -60 dBc	In band
Rising / Falling time	150 nsec max.	@ Input Power = 52 dBm with Pulsed Signal
On/Off Switching Time	1 usec max.	
Operating Voltage	Vgs : -4VDC(ON) & -8VDC(OFF) Vds : 48 to 50VDC	A sequential circuit is required.
Current Consumption	12 A avg. typ. 60 A peak max.	@ Pout = 1.2 kW Pulsed, PW = 100usec, Duty = 10%, 50 ohms load condition
RF Input Signal Format	Pulsed	PW = 100usec, Duty = 10%

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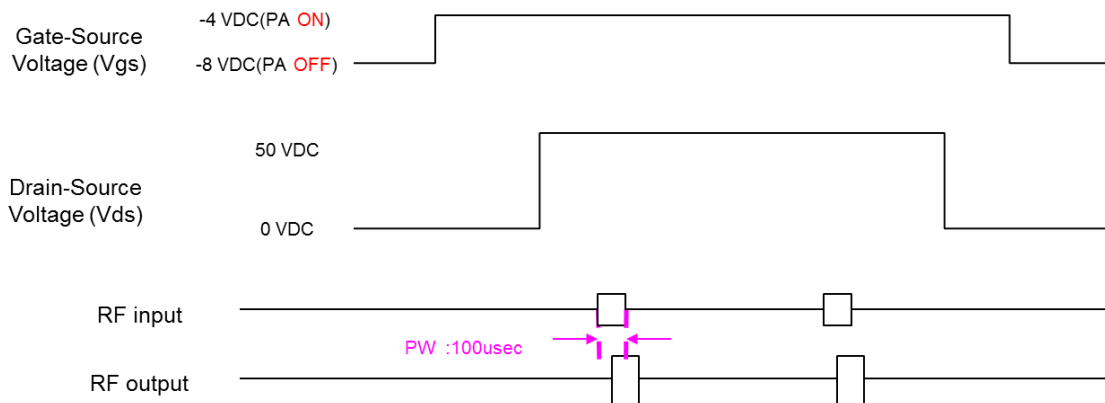
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I/O Interface Pin Description

Connector Type	Pin Name	Pin Description
DC Pads	Vgs	-4 VDC(ON), -8 VDC(OFF)
DC Pads	Vds	48 to 50VDC
GND	GND	GROUND

Nominal Sequence



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ENVIRONMENTAL SPECIFICATIONS

Parameter	Specification	Remark
Operating Plate Temperature	-30 ~ +75 °C	At a hottest point of the mechanical plate of pallet amplifier module
Storage Temperature	-40 ~ +85 °C	

MECHANICAL SPECIFICATIONS

Parameter	Specification	Remark
Dimension	200 * 250 * 60[TBD] mm	Requires 3300uF 100VDC Electrolytic Capacitor
Weight	Less than 1 kg	
Input Connector	50 Ohms MSL	
Output Connector	50 Ohms MSL	
DC Connector	DC Pads	
Cooling	Adequate Heat-sink required	

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MECHANICAL DRAWING

DRAWING REFERNECE: This is subject to change without notice.

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