HD32141-1000
SOLID STATE PULSE HIGH POWER AMPLIFIER

HD Communications Corp.

FEATURES

Small form factor rack-mounted system
High power GaN pulse devices
Instantaneous bandwidth
Suitable for X-Band high power linear pulse applications
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, +25°C

Parameter	Specification			Notes	
Model Number	HD32141-1000				
Operating Frequency Range	9.3 - 9.5 GHz			Or 8.7 - 8.9 GHz	
Pulse Peak Output Power	1000 Watt Min			Pin = 0 dBm	
Output Power Flatness	± 1 dB Max			Over operating & Temp Range	
Input Power	0 - 5 dBm			Pulsed	
Saturated Gain	60 dB Min				
Output Power Control	30 dB Min			Via local/remote controller	
Pulse Characteristics	**Width**	**Duty**	**PRF**	**Rise/Fall**	**Droop**
	0.2- 100 µS	10 %	0 - 4 KHz	50 nS	0.5dB Max @ 100µS 0.1dB Max @ 10 µS
Input / Output VSWR	1.8 : 1 Max				
Harmonics	-20 dBc Max				
Spurious	-50 dBc Max			Non-harmonics	
Load VSWR	2.5 : 1			Without damage	
Gate Control Inputs	PA OFF: TTL High PA ON: TTL Low			TTL pulse precedes RF by2 µSec See Fig. 1	
AC Input Voltage	220 VAC ±10 %, 60 Hz, 3-Phase 4 Wires				
AC Power Consumption	1000 Watt Avg Max			At rated Pout @ 100µS, 10%	

ENVIRONMENTAL CHARACTERISTICS: Designed to meet

Parameter	Specification	Notes
Operating Ambient Temperature	0 to +50°C	MIL-STD 810F, 502.4/501.4
Storage Temperature	-20 to +70°C	MIL-STD 810F, 502.4/501.4
Relative Humidity	95% @ 40°C	MIL-STD 810F, Method 507.4
Shock (Bump)	25 g for 6 mSec, 2-3 Bumps/Sec. 400 Bumps	MIL-STD 810F, Method 516.5
Vibrations	$2m/S^2$ from 20 -500 Hz	MIL-STD 810F, Method 514.5
Altitude	5160 m	MIL-STD 810F, Method 500.4

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MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions W x H x D	R6U	Rack mounted chassis
Weight	31 Kg.	
RF Input Connector - Rear	Type N (F)	Rear Panel
RF Output Connector - Rear	WR 90	Rear panel
Driver Input Connector	BNC female	Rear panel
Sample Port	SMA female	Rear Panel
AC Power	MS3102A22-22P A: 220V PHA, B: 220V PHB, C: 220V PHC, D: Safety GND	Rear panel Mating MS3106A22-22S
Monitor & Control - Rear	Ethernet RJ-45 circular connector TCP/IP, USB RS-422 D-Sub 9S port for redundancy	
Cooling	Built in Fan Cooling	

Front panel include:
A: LCD panel shows input pulse width/Duty/Output power/Rev power/DC
B: Fault indicator: over AC input/over temp/over VSWR
C: Standby/Online switch
D: PA host/remote switch
E: Include coupling connector SMA Female: -50dB ±1dB
F: Power supply on/off switch with LED
G: Output power adjuster, 0-1KW can full range adjust @0 dBm input

Protections: AC over load, over heat, over duty, over pulse width, overload VSWR

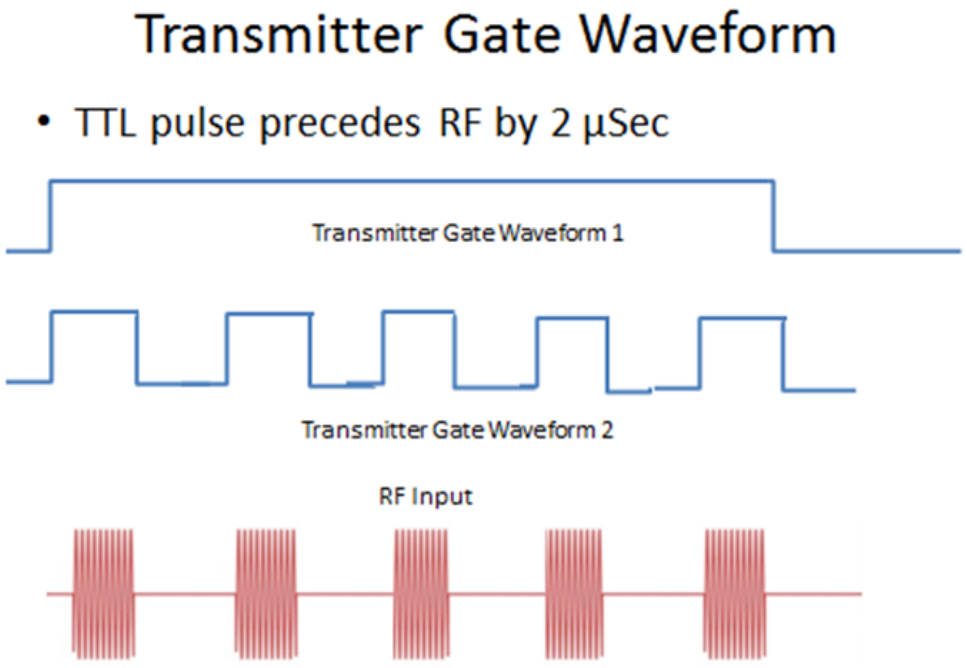
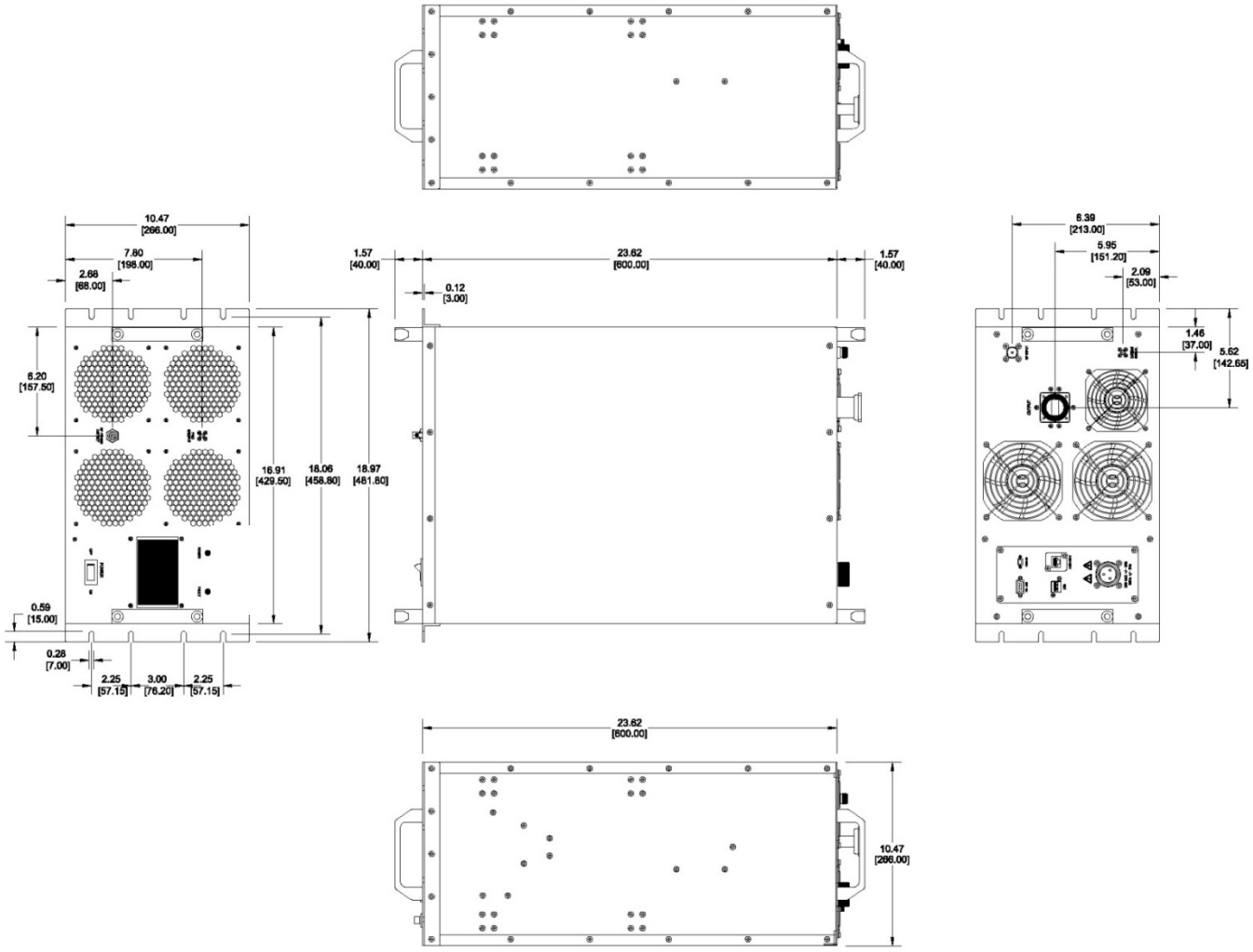


Fig.1

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OUTLINE DRAWING - R6U



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