HD32157
SOLID STATE PULSE HIGH POWER AMPLIFIER

HD Communications Corp.



FEATURES

High power GaN pulse devices
Suitable for X-Band linear pulse applications
Built-in Ethernet Control and Protection circuits
Rack mounted chassis
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification			Notes
Operating Frequency Range	9.7 - 9.9 GHz			
Peak Output Power	4000 Watt Min			
Input Power	0 dBm Nom			Pulsed
Saturated Gain	66 dB Min			
Pulse Characteristics	**Duty**	**Width**	**PRF**	
	10 % Max	0.2 - 50 µSec	18 KHz Max	PRF relative to DS & PW
Pulse Droop	0.7 dB Max			@ 50 µSec
Rise / Fall Time	50 nSec			
Input / Output VSWR	1.5 : 1			Relative to 50 Ohm
Harmonics	-20 dBc Max			
Out of Band Spurious levels	-50 dBc Max			Mon-harmonic or Gaussian
Load VSWR Protection	2.5 : 1			Without damage
Gate Control Inputs	TTL - gating pulse must precede RF by 2 µSec			
AC Input Voltage	180 - 260 VAC, 50-60 Hz			
Efficiency	15 % Min			
RF Output Sample	-60 dB Nom			

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Ambient Temperature	0 to +50°C	
Vibrations	MIL-STD 810G, Method 514.6	
Altitude	10,000 feet	30,000 feet non-operating

MECHANICAL SPECIFICATIONS

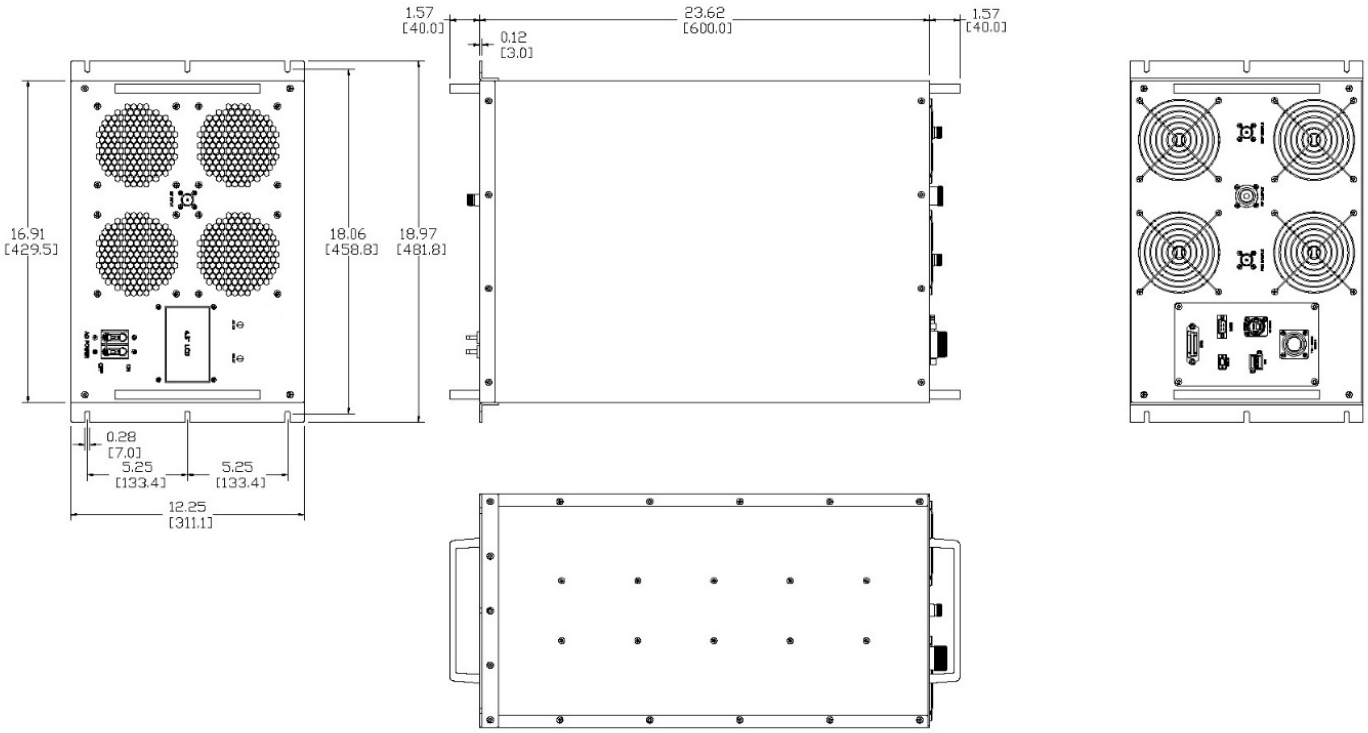
Parameter	Specification	Notes
Dimensions W x H x D	Preliminary drawing	7U, 19” rack
Weight	TBD	
RF Input Connector	SMA (F) Jack	
RF Output Connector	WR-112 Waveguide flange	Waveguide pressure sensor
RF Sample Port	SMA (F) Jack	
AC Power	MS3122E14-5P	or similar
Transmit Gating Connector	MS circular or similar	
Monitor & Control	Ethernet RJ-45 circular connector TCP/IP RS422/485 D-sub 9S port for redundancy	
Cooling	Built in Fan Cooling	Front Inlet, Rear outlet
Elapse Hour Meter	Internally tracked via software	Ethernet status message

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OUTLINE DRAWING



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