HD Communications Corp.

HD32159 SERIES
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

HD32159 S-Band Hub-Mount series is suitable for mobile and fixed SATCOM Up-Link applications. These products feature high linear power, good efficiency and long term reliability in a light weight and small form factor. Built in features include µP remote user interface for control, monitoring and redundancy.

ELECTRICAL SPECIFICATIONS @ 25°C, 50Ω

Parameter	Specification			Notes
Model Number – **HD32159**	**-300**	**-400**	**-500**	
Operating Frequency Range	2.025 - 2.120 GHz			
Power Output Psat	300 Watt	400 Watt	500 Watt	
Power Output @ P1dB	250 Watt	300 Watt	400 Watt	CW
Power Gain	65 dB Min			
Gain Adjustment Range	20 dB in 0.1 dB steps			
Power Gain Flatness	1.5 dB p-p Max			0.5 dB p-p over any 10MHz
Gain Slope	0.06 dB / MHz Max			
Gain Variation Over Temp	3 dB p-p Max			
Input / Output Return Loss	14 dB Min			Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-24 dBc			@P1dB-3dB, Δ = 1MHz
Harmonics	-60 dBc Max			At rated P1dB
AM / PM Conversion	2.5° / dB			At rated P1dB
Noise Figure	10 dB Max			
Spurious	-60 dBc Max			Non-harmonics
Group Delay	**Linear**	**Parabolic**	**Ripple**	
	0.02 nS/MHz	0.003 ns/MHz^2	1 nS p-p	
Residual AM Noise	**0-10 KHz**	**10-500 KHz**	**0.5-1 MHz**	
	-45 dBc	-50 dBc	-80 dBc	
Operating Voltage	220 VAC Nom			50/60Hz
Current Consumption	1400 Watt	1500 Watt	1600 Watt	At rated P1dB
Max Input Power	-6 dBm			Without damage
Load VSWR Protection	∞ : 1 Min			

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Ambient Temperature	-30 to +55 °C	
Storage Temperature	-55 to +85 °C	
Relative Humidity	100 % Condensing	Meeting IP62 standard
Shock and Vibrations	Normal truck transport	
Altitude	10,000 feet Min	Derated 2°C/1000ft.

332C Dante Ct. Holbrook, NY 11741 Phone: 631-588-3877 Fax: 631-648-0518
www.rfcomp.com www.rfamplifiers.com sales@hdcom.com

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MECHANICAL SPECIFICATIONS

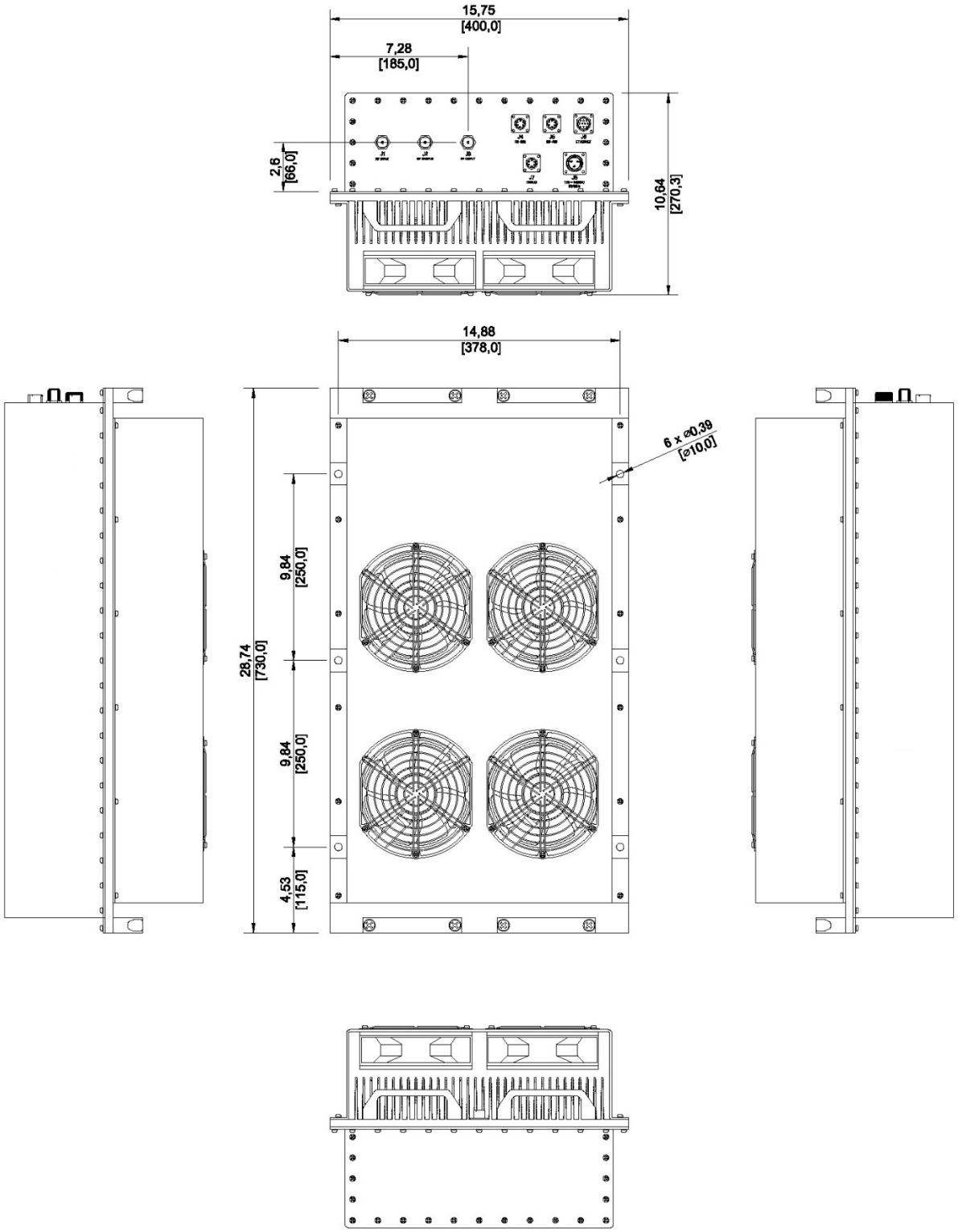
Parameter	Specification	Notes
Dimensions W x H x D	730 x 400 x 270mm	3U
Weight	44 Kg.	
RF Connectors In / Out / Sample	Type-N Female	
AC Power / Interface Connector	MS3102	Or equivalent
RS232 Serial port	MS3112E10-6P	
RS485 / Ethernet	MS3112	
Cooling	Built in Fan Cooling	Variable speed
OPTIONAL: Digital Monitor & Control FWD, REV, VSWR, GAIN, ALC, V & I, TEMP	Ethernet RJ-45 TCP/IP, USB, RS422/485 Optional GPIB Interface	Remote Bluetooth application

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OUTLINE DRAWIN



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