HD Communications Corp.

# HD32160 SERIES
# SOLID STATE HIGH POWER AMPLIFIER

**FEATURES**

HD32160 S-Band is suitable for mobile and fixed SATCOM Up-Link applications. These product 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 – HD32160 | **-100** | - | - | |
| Operating Frequency Range | 2.0 - 2.15 GHz | | | |
| Power Output Psat | 100 Watt | | | CW |
| Power Output @ P1dB | 80 Watt | | | CW |
| Power Gain | 70 dB Min | | | |
| Gain Adjustment Range | 20 dB in 0.1 dB steps | | | |
| Power Gain Flatness | ±0.5 dB Max | | | Over any 40MHz |
| Gain Slope | 0.06 dB / MHz Max | | | |
| Gain Variation Over Temperature | ±1.5 dB Max | | | |
| Input / Output Return Loss | 14 dB Min | | | Relative to 50 Ohm |
| 2-Tone Intermodulation (IMD) | -25 dBc Max | | | @P1dB - 3dB, Δ = 1MHz |
| Harmonics | -60 dBc | | | At rated P1dB |
| AM / PM Conversion | 3.5° / dB | | | At rated P1dB |
| Noise Figure | 11 dB Max | | | |
| Non Harmonics Spurious | -60 dBc Max | | | At rated P1dB |
| Group Delay | **Linear** | **Parabolic** | **Ripple** | |
| | 0.03 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 | 230 VAC Nom | | | 50/60Hz |
| Current Consumption | 900 Watt Max | | | At rated P1dB |
| Max Input Power | -12 dBm | | | Without damage |
| Load VSWR Protection | ∞ : 1 Min | | | |

**ENVIRONMENTAL CHARACTERISTICS**

| Parameter | Specification | Notes |
|---|---|---|
| Operating Case Temperature | 0 to +50 °C | |
| Storage Temperature | -20 to +85 °C | |
| Relative Humidity | 5 to 95 % | Non Condensing |

**MECHANICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Dimensions W x H x D | 430 x 88 x 562 mm | 2U |
| Weight | 9 Kg. | |
| RF Connectors In / Out / Sample | Type-N Female | |
| AC Power / Interface Connector | MS3102 | Or equivalent |
| RS232 / 422 Serial port | MS3112E10-6P | |
| 485 / Ethernet | MS3112 | |
| Cooling | Built in forced air | Variable speed |
| Digital Monitor & Control<br>FWD, REV, VSWR, GAIN, ALC, V & I, TEMP | Ethernet RJ-45 TCP/IP, USB, RS422/485<br>Optional GPIB Interface | |

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