HD Communications

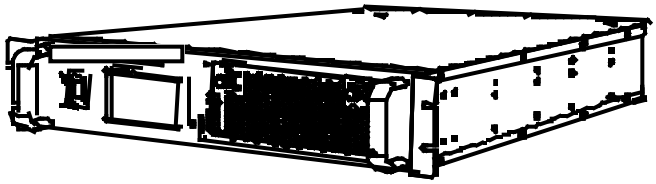
Solid State Broadband High Power RF Amplifier

SERIES HD14919-X

1000 – 3000 MHz / 10 - 100 Watt

Designed for broadband RF/Microwave power applications, this amplifier utilizes linear GaAsFET power devices that provide high gain, wide dynamic range and excellent linearity. Exceptional performance, long term reliability and high efficiency are achieved by employing advanced broadband RF matching networks and combining techniques, EMI/RFI filters, machined housings and qualified components. Each unit undergoes extensive burn-in prior to final test and inspection.

- Solid-state Class A design
- Instantaneous ultra broadband
- Small and lightweight
- Standard front panel manual gain adjust
- Suitablefor all modulations CW/FM/PM/AM/Pulse/Digital
- 50 Ohm Input/Output impedance
- High reliability and ruggedness



SPECIFICATIONS

Parameter	Symbol	HD14919-10	HD14919-25	HD14919-50	HD14919-100	Units	Range
Operating Frequency	BW		1000	3000		MHz	Min
Power Output CW	Ptyp	12	30	55	100	Watts	Typ
Power Output CW	Psat	**10**	**25**	**50**	**90**	Watts	Min
Power Output @ 1 dB comp.	P1dB	8	20	40	70	Watts	Min
Small Signal Gain	SSG	40	44	48	50	dB	Min
Gain Adjustment Range	FGA	25	25	25	25	dB	Nom
Small Signal Gain Flatness	Gr	±1.5	±2.0	±2.0	±2.0	dB	Max
Input/Output VSWR	S11/S22	-10	-10	-10	-10	dB	Max
Third Order Intercept Point	IP3	+48	+53	+56	+59	dBm	Typ
Harmonics @ 1 dB compression	H	-20	-20	-20	-20	dBc	Max
Noise Figure at full Gain	NF	10	10	10	10	dB	Max
Load VSWR @ full CW	Ψ	∞	∞	∞	∞	-	Nom
Spurious Signals	Spur	-60	-60	-60	-60	dBc	Max
Operating Voltage Range	VAC	ACA	ACA	ACA	ACA	VAC	Min
Power Consumption AC	Pd	100	250	500	1000	Watts	Max
Dimensions		B2U	R2U	R3U	R5U	-	Nom
Weight		15	30	47	80	Lb.	Max
Connectors RF In/Out (std.)		FCN	FCN	RCN	RCN	-	-
Option packages		Opt02 Opt03 Opt04 Opt05 Opt06	Opt04 Opt05 Opt06	Opt07 Opt09 Opt10	Opt15 Opt17 Opt19	-	-

ENVIRONMENTAL SPECIFICATIONS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Temperature	Tc	0		+50	°C
Non-operating Temperature	Tstg	-40		+85	°C
Relative humidity w/o cond.	RH	0		95	%
Altitude	ALT	10,000	20,000		Feet
Shock and Vibration	SV	GR-487	Air Borne		-

Refer to table for systems options

1 Comac Loop Ronkonkoma, NY 11779 Phone: (631) 588-3877 Fax: (631) 588-3879 e-mail: mailroom@hdcom.com
www.hdcom.com