

Solid State Power Amplifier, Kue Band, 13.75-14.50GHz 40VDC (28VDC/ 110-240VAC), 25/40/100Watts Psat 19" Rack

Typical Applications

- Solid state class AB GaN design
- Instantaneous full bandwidth
- Unconditional stability
- High reliability and ruggedness
- Reverse polarity protection
- Over Temp protection & Alarm -40~60°C

Features

- Broadband 13.75-14.50GHz
- Output Power of 25 / 40 / 100watts
- 28 VDC Power Supply (40VDC & 110-240VAC opt)
- CW/Pulse
- Airborne Qualified



“5 Year Warranty”

General Description:

This is a Class AB CW/Pulse Power Amplifier, designed pulse operation, and general-purpose, amplification. Using an advanced high power density LDMOS and GaN semiconductor processes, these high performance amplifiers achieve high efficiency, flat gain, and large instantaneous bandwidth in a single amplifier design.

Order Examples: RSSPA-R-Kue(13.75-14.50)-28Vdc-Nf-100W-Generic-L21

Description: (Power Amplifier 19" Rack Mount 2RU, Kue Band (13.75-14.50GHz), 28V_{DC}, 100 Watts Psat)

Additional Option: **40VDC , 110-240VAC, 25 Watts and 40Watt**

PA basic specifications	25 Watts	40 Watts	100Watts	Units
Frequency	13.75-14.50	13.75-14.50	13.75-14.50	GHz
Psat Output Power	25	40	100	W
Small Signal Gain (typ)	45	47	50	dB
Gain flatness at Psat (Δ Gp)	± 2 max	± 2 max	± 2 max	dB
Input / Output Return Loss	-10	-10	-10	dB
Harmonics@1dB compression	-20(dBc) (Typ)	-20(dBc) (Typ)	-20(dBc) (Typ)	dBc
Spurious	-70 (dBc) (Typ)	-70 (dBc) (Typ)	-70 (dBc) (Typ)	dBc
Voltage	28	28	28	V
Current Consumption	5A	8	18A	Amp
Power	140	225	500	W
Efficiency	17.8	17.2	20	%
Operating Temperature	0 ~ +50			°C
Storage Temperature	-40 ~ +85			°C
Relative Humidity	95 (non-condensing)			%
Altitude	10,000 (Mil-STD-810F Method 500.4)*			feet
Vibration/Shock	Airborne (MIL-STD-810F Method 514.5)			
Dimensions L x W x H (2U)	19 x 15 x 3.5			inches
Weight	20			lbs
RF Connectors	N Female			
DC Interface Connector	Terminal Block			
Cooling	Forced Air			

RSSPA-R-Kue-Nf-25-100W-Generic-L21

Specifications may be subject to change

01/25/16

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**Solid State Power Amplifier, Kue Band, 13.75-14.50GHz
40VDC (28VDC/ 110-240VAC), 25/40/100Watts Psat 19" Rack**

PA basic specifications	25 Watts	40 Watts	100Watts	Units
Limits				
Input drive with no damage	+10			dBm
Load VSWR @ P Sat	10:1 all phase and magnitude			
Over Temp protection & Alarm	<-40~>+60			°C