



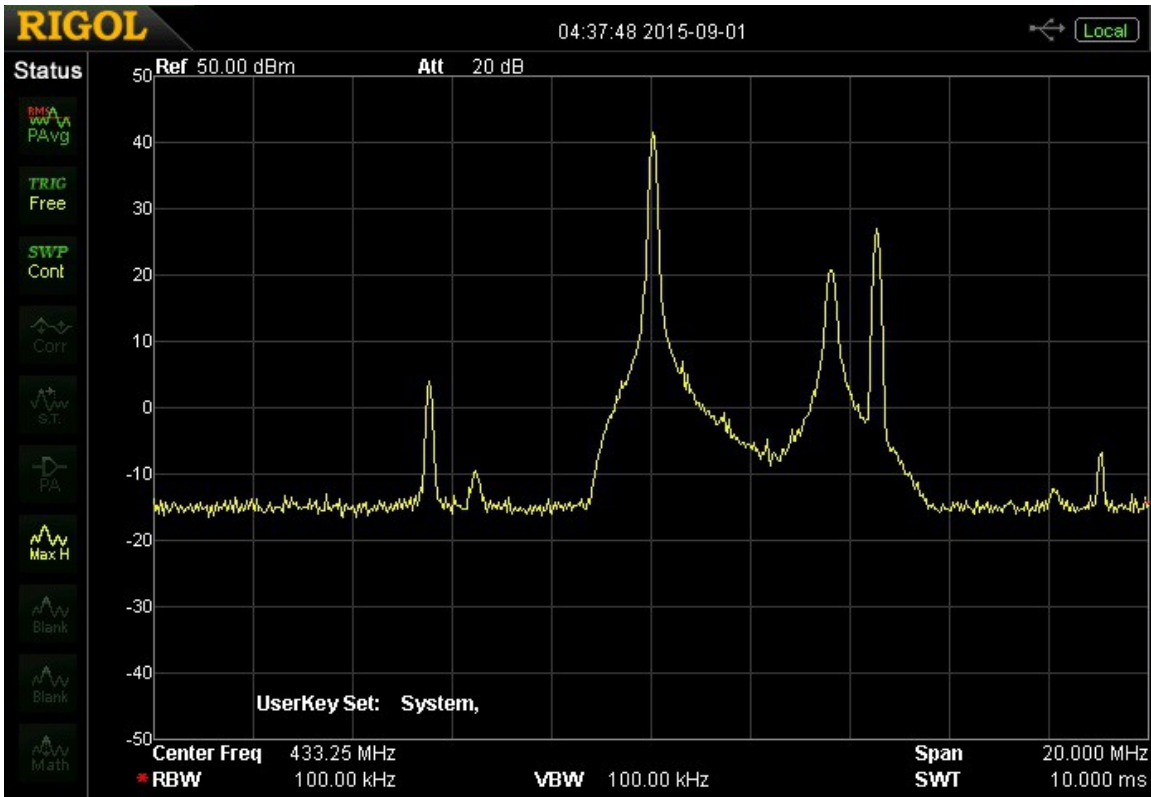
## Model 33-3B 33 cm, 50 dB, 50/20/6 Watt RF LINEAR POWER AMPLIFIER



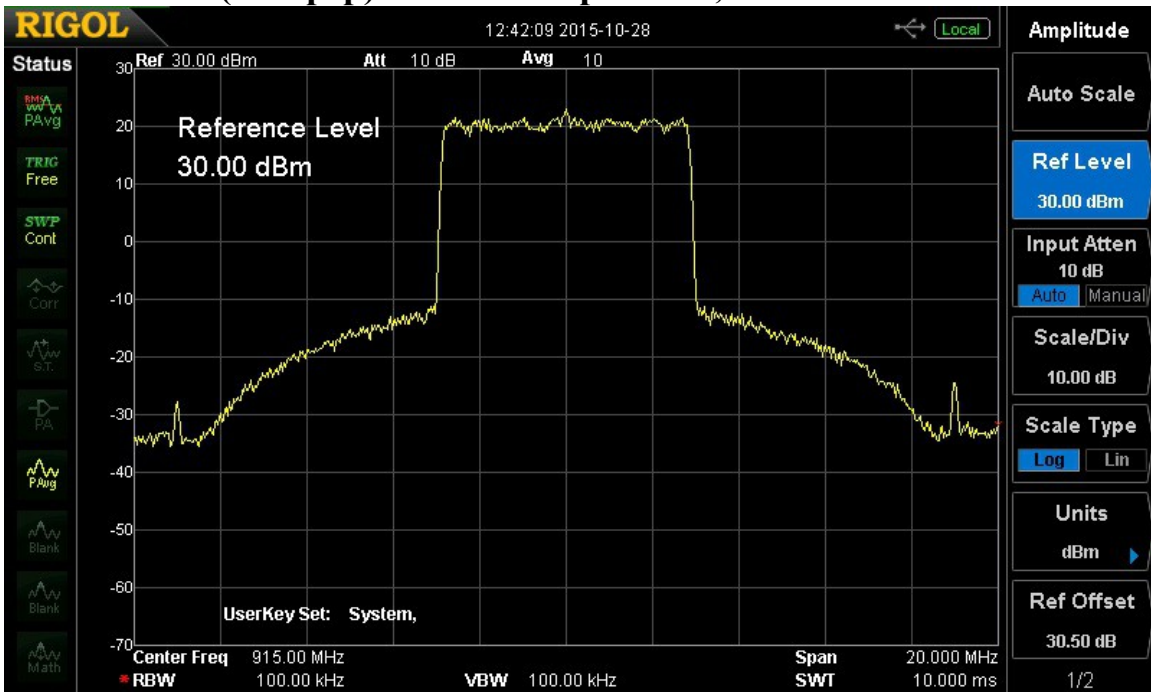
**The KH6HTV-VIDEO Model 33-3B, RF Linear Power Amplifier is for use in the amateur radio 33cm band (902-928 MHz). It can be used to produce a 50 Watt FM signal or 20 Watt (pep), analog, TV signal. It can also produce a 6 Watt (avg), high-definition (1080p), digital TV signal. The rf power output can be lowered -5dB or -10dB for reduced DC current draw with the front panel rotary switch. External PTT control is included.**

PARAMETER	Typical Performance	Notes
Output Power (analog TV) (VUSB-TV, NTSC)	20 Watts PEP (+43 dBm) also 8 Watt or 2.5 Watt	peak power on sync tips adjustable in 5dB steps
Output Power (Digital TV)	6 Watts (+38dBm) also 2 or 0.6 Watts	rms, avg. power,DVB-T service adjustable in 5 dB steps
Output Power (FM, CW)	50 Watts, typical	saturated output
Output Power (-1dB)	40 Watts (46dBm)	-1 dB gain compression
Output Power vs. Supply Voltage	+43 dBm @ 12 - 13.8 Vdc +42 dBm @ 10 Vdc	analog VUSB-TV
RF Power Amplifier Gain	50 dB, nominal	
Amplifier Gain Flatness	± 2 dB	902 - 928 MHz
Amplifier Max Input Power	50 mW, +17 dBm	
LSB Rejection (analog VUSB)	better than -20dB	LSB/USB ratio - see photo
Spectrum Regrowth (Digital TV)	-30 dB at +38dBm avg	shoulder break-point, see photo
Duty Cycle	100 %	heat sink & cooling fan included
DC Supply Voltage	13.8 Vdc	10 to 15 Vdc
DC Current @ 13.8 Vdc	10, 3 or 2 Amps	6 W / 2 W / 0.6W (DTV)
Control - Rotary Switch	OFF - HI - MED - LOW	rf power adjustable in 5 dB steps
Control - Mini Toggle Switch	Xmit ON - Stand-By - Ext PTT	
Rear Panel Terminal Strip	GND,+12Vdc,PTT IN,PTT OUT	
RF Connectors	SMA input & N output	
Dimensions & Weight	5.5" x 4.5" x 5.0"	2 lbs
Accessories Included	instruction manual & test report	

**KH6HTV-VIDEO Maui, HI & Boulder, CO USA [www.kh6htv.com](http://www.kh6htv.com) [kh6htv@arrrl.net](mailto:kh6htv@arrrl.net)**



**+43 dBm (20Wpep) VUSB-TV Spectrum, 10dB/div & 2 MHz/div**



**+38dBm (6 Watts avg), DVB-T Spectrum, 10dB/div & 2 MHz/div**

Measured with Rigol DSA-815 Spectrum Analyzer

**NOTICE:** This linear amplifier is not FCC type accepted. Therefore, the use of this amplifier is only legal in the USA, amateur radio, 33 cm band (902 - 928 MHz). Owners and operators of this amplifier must be licensed amateur radio operators.