



VHF Power Amplifier R&S® VU 220L

For ground-to-air and naval applications

- ◆ High output power
- ◆ Continuous operation (100% duty cycle)
- ◆ Excellent spectral purity (with Rohde & Schwarz exciters through multistage harmonic filters and integrated circulators)
- ◆ Automatic AC/DC switchover
- ◆ Power management: normal/high power mode selectable
- ◆ Use in 230 V AC or 110 V AC environment
- ◆ LED service indication, output power, VSWR, AC/DC
- ◆ Automatic bypass switchover at critical temperature and high VSWR
- ◆ High reliability



ROHDE & SCHWARZ

Specifications

General data	
Frequency range	118 MHz to 144 MHz
RF input power	max. 20 W
RF output power	nominal, valid for the specified AC supply voltage and operating temperature ranges and for VSWR ≤ 2
AM carrier	200 W ± 1.5 dB
FM	200 W ± 1.5 dB
AM PEP (peak envelope power)	800 W
Continuous operation	through e.g. – sensor-controlled forced-air cooling – automatic switching to RF bypass mode in case of e.g. extremely high or low supply voltage (AC or DC), VSWR typ. > 3, heat sink temperature exceeding 80 °C or negative test result (NOGO)
Unwanted emissions	
Harmonics attenuation	> 80 dBc ¹⁾
Spurious attenuation	> 80 dBc ¹⁾
Backward intermodulation products (with interfering signal 20 dB below wanted signal)	65 dB below wanted signal
Modulation characteristics	
Classes of emission	AM, FM, other on request
S/N ratio (AM) with 1 kHz, m = 85 % and S/N > 50 dB of exciter	> 45 dB
AF distortion	< 10 % ²⁾
Modulation depth (m)	90 % AM
Power supply	
AC	110 V to 230 V, 50/60 Hz
DC	26 V to 31 V, operational down to 21.5 V, protected against wrong polarity and reverse feed
AC/DC switchover	automatic
Power consumption	
AC, TX mode	< 1.6 kW

EMC	IEC 801-2, -3 and -4, part 2
Electrical safety	EN 60215, EN 60950-1
Environmental data	
Operating temperature range	–10 °C to +55 °C ³⁾ 0 °C to +55 °C with full specifications
Storage temperature range	–40 °C to +70 °C
Max. relative humidity, operation	93 % +2/–3 % at +40 °C (without condensation); EN 60068-2-30
Max. relative humidity, storage	93 % +2/–3 % at +40 °C; EN 60068-2-30
Permissible altitude, operation	3000 m above sea level
Permissible altitude, storage/transport	5000 m above sea level
Shock	EN 60068-2-27, 30 g for 11 ms, 18 shocks in 3 positions
Vibration	EN 60068-2-6, 0.3 mm double amplitude, 2 g, 10 Hz to 55 Hz, 1 octave/min., total test period 30 min.
Mechanical data	
Dimensions (W × H × D)	483 mm × 220 mm × 471 mm, 19" 4 HU plug-in
Weight	approx. 27 kg

Ordering information

Designation	Type	Order No.
VHF Power Amplifier (19" 4 HU plug-in, delivered with one set of accessories)	R&S® VU 220L	6083.5317.02

¹⁾ In addition, the exciter values are applicable.

²⁾ Ref. to AM (m = 0.85; f_m = 1 kHz) and nominal supply voltage. In addition, the exciter values are applicable.

³⁾ 0 ° to +55 ° with full specifications.

More information at
www.rohde-schwarz.com
 (search term: VU220L)



ROHDE & SCHWARZ

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