

## Model 5T20A

### Features:

- Optimized for 4.7 Tesla use
- Broadband: 20~250MHz
- 2kW of Linear Power
- Designed for Patient Safety
- Solid-state architecture
- High Reliability
- Integrated Alarms



### Benefits:

- Only one amp needed - Besides  $^1\text{H}$ , the broadband capability allows for easy coverage of other common nuclides like  $^{19}\text{F}$ ,  $^{31}\text{P}$ ,  $^{13}\text{C}$ ,  $^{129}\text{Xe}$ ,  $^{17}\text{O}$ ,  $^{14}\text{N}$
- Designed in safety features combined with regulatory safety compliance allows for "no worry" operations for patients and service personnel
- Reliability, designed-in and manufacturing tested, provides a high MTBF, zero maintenance amplifier

# Model 5T20A

## Solid-state, Pulsed, RF Power Amplifier Specifications

### Electrical

Frequency range.....	20 - 250 MHz
Pulse power into 50 ohms .....	2,000 W, PEP, min
Linearity (30dB dynamic range from 2kW).....	±1.0dB @ <sup>1</sup> H, ±1.5db max other nuclei.
Output power stability .....	0.3 dB within 30 min. after 5 min warm-up
Output phase stability .....	3.0° within 30 min. after 5 min warm-up
Harmonic levels .....	2nd: <-22 dBc, 3rd: -15 dBc, typ.
Gain (0 dBm input).....	63 dB min.
Gain flatness (-15dBm P <sub>in</sub> ) .....	±4 dB
Input/output impedance .....	50 ohms nominal
Input drive level for rated power output.....	0dbm, max.
Input power, without damage.....	+10dbm max
Input VSWR.....	< 1.5:1
Pulse width .....	10 ms max. @ 2.0 kW
Duty cycle .....	Up to 10% @ 2.0 kW
Output noise level (blanked) .....	< 10 dB over thermal KTB
Blanking delay .....	< 2 μs "ON", 2 μs "OFF"
Protection/System Monitors.....	1. Excessive VSWR 2. Excessive input/output power 3. Excessive duty cycle/pulse width 4. Excessive temperature 5. Over/under DC voltage

### Supplemental:

Connectors, rear panel .....	1. RF input: BNC (F) 2. RF output: N type (F) 3. Gating (blanking): BNC (F) 4. User Interface: 25 pin D (F), filtered
Indicators, front panel .....	1. Power      4. Unblank 2. Standby    5. Fault 3. Ready      6. System status code
Controls .....	1. AC power 2. Forward/Reflected power monitoring
Cooling .....	Air-cooled
Operating temperature.....	Ambient: +10° to +40° C
Line voltage .....	208 VAC, ±10%, 3 Ø, 50 - 60 Hz
AC power requirements .....	20A/phase, 208 VAC
Size (HWD), package .....	17.5x19x23.5inches, 19" rack mountable
Weight .....	250lbs crated

Herley Medical Products reserves the right to change specifications and/or discontinue this product without notice.