



Model 3900C-6S

600-925 MHz

Pulsed, Solid-State,

RF Power Amplifier System

Electrical Specifications:

| | |
|---------------------------------------|--|
| Frequency Range | 600-925 MHz |
| Pulse Output Power | 100 W, min into 50 Ohms |
| CW Output Power | 20 W, max into 50 Ohms |
| Linearity (± 1.5 dB from linear) | 0 - 80 W |
| Gain | 56 dB, typical |
| Gain Flatness | ± 6 dB, max |
| Input/Output Impedance | 50 Ohms, nominal |
| Input VSWR | Less than 2:1 |
| Pulse Width | 20 ms, 250 ms with long pulse option |
| Duty Cycle | Up to 10% |
| Amplitude Rise/Fall Time | 100 ns typ. |
| Amplitude Droop | 5% to 20 ms typ; 8% max. |
| Phase Change/Output Power | 10° to rated power typ. |
| Phase Error Overpulse | 4° to 20 ms duration, typ. |
| Noise Figure | 9 dB typ., with 0 dB of gain adjustment padding at module RF input |
| Output Noise (blanked) | < 20 dB over thermal |
| Blanking Delay | < 1 μ s on/off, TTL signal |
| Protection | <ol style="list-style-type: none"> 1. VSWR 2. Input overdrive 3. Over duty cycle/pulse width 4. Over temperature |

Supplemental characteristics:

| | | | |
|--|--|--|---|
| Connectors, Rear Panel | <ol style="list-style-type: none"> 1. RF input: BNC (F) 2. RF output: Type N (F) 3. Noise blanking: BNC (F) 4. Interface: 25 pin D(F), EMI filtered | | |
| Controls, Front Panel | <ol style="list-style-type: none"> 1. AC power 2. Pulse width 3. Duty cycle | | |
| Indicators, Front Panel | <table> <tr> <td> <ol style="list-style-type: none"> 1. AC power on 2. Peak power meter 3. Over pulse width 4. Over duty cycle </td> <td> <ol style="list-style-type: none"> 5. Over temperature 6. Overdrive 7. CW mode </td> </tr> </table> | <ol style="list-style-type: none"> 1. AC power on 2. Peak power meter 3. Over pulse width 4. Over duty cycle | <ol style="list-style-type: none"> 5. Over temperature 6. Overdrive 7. CW mode |
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| System Monitors | <ol style="list-style-type: none"> 1. Forward/reflected RF power 2. Over pulse width/duty cycle 3. DC power supply fault 4. Thermal fault | | |
| Cooling | Internal forced air | | |
| Operating Temperature | +10 to 40°C | | |
| AC Line Voltage | 120/240 VAC, $\pm 10\%$, 50 - 60 Hz | | |
| AC Power Requirements | 500 VA | | |
| Package, Size (HWD, inches) | 5.25x19x24 Rack Mount | | |
| Net Weight | 65 lbs | | |