

PLT02-122SC



*1200W Band II
FM Amplifier
Compact Line*

GENERAL INFORMATION

The new RF Module PLT02-122SC is a state of the art RF Module designed as final stage for band II FM amplifiers and uses a single LDMOS of the last generation capable of 1200 W RF output. The module is realized with an ultra compact layout to maximize the number of pallets in high power amplifiers and include the bias circuits, matching networks and circuits for stabilization of the operating point. The configuration of the amplifier is a “push-pull” stage coupled by means of the combining network fully integrated in the RF block. This design allows to obtain broadband high efficiency and extremely low harmonic emissions that are all at least 50 dB below the carrier.

TECHNICAL SPECIFICATIONS ($t_h = 25\text{ }^\circ\text{C}$; $50\text{ }\Omega$ loaded ; $V_{dc} = 48\text{V}$)

- Output power : $\geq 1200\text{ W CW}$
- Power Gain: $\geq 20\text{ dB}$ (@ full power)
- Input power: 10 W (nominal)
- Frequency range: $87\text{ to }110\text{ MHz}$
- Class operation: B saturated
- Drain current: 30.5 typical
- Drain efficiency: $> 83\%$ (@ 1200 W CW)
- Input return loss: $\geq 15\text{ dB}$
- Insertion phase variation: $\pm 5^\circ$ max
- Gain variation: $\pm 1\text{ dB}$ max
- Harmonic emissions: $\leq 50\text{ dBc}$
- Power supply requirement: $48\text{Vdc} \pm 2\%$; 32A max.
- Heat sink requirement : $\leq 0.1\text{ }^\circ\text{C/W}$
- Operating temperature : $-5^\circ\text{C to }+45^\circ\text{C}$
- Heatsink temperature: $-5^\circ\text{C to }+75^\circ\text{C}$
- Dimensions: $115 \times 52 \times 25\text{mm}$
- Weight: 350 gr (with Cu base-plate)

RF MODULE LAYOUT

