

PLT08-251P



*250W S-Band
Pulsed Amplifier*

GENERAL INFORMATION

The unit is the RF amplifier basic block (pallet) including two 130 W LDMOS power transistor intended for radar applications in the 2.7 GHz to 3.1 GHz range. The amplifier consists in two parallel stages coupled by means of the combining system fully integrated in the RF block, as well bias circuit. The block can operate both at 32Vdc or 36Vdc, and have an integrated attenuation circuit to adjust the power gain accordingly to the requested specs.

TECHNICAL SPECIFICATIONS ($t_h = 25\text{ }^\circ\text{C}$; $50\text{ }\Omega$ loaded ; $V_d = 32\text{V}/36\text{V}$)

Typical pulsed RF performance at $100\text{ }\mu\text{s}$ Pulse Width – Duty Cycle 10%

- Frequency range 2.7 to 3.1 GHz
- Class operation AB saturation
- Input - output impedance $50\text{ }\Omega$
- Input return loss..... $\geq 15\text{ dB}$
- Input power 20W / 40W nominal (peak)
- Output power 250 W nominal (peak)
- Power Gain..... $7\div 10\text{ dB}$
- Power supply requirement 32/36 VDC $\pm 2\%$; 1.8 A
- RF input solder post (SMA option)
- RF output solder post (SMA option)
- Mismatch tolerance 2:1 max
- Efficiency $42\% @ 32\text{Vdc}$; $38\% @ 32\text{Vdc}$
- Harmonics emission $\leq 20\text{ dBc}$
- Size 76 x 53 x 20 (H) mm

RF MODULE LAYOUT

