

PHS Band 8 Watt Amplifier

FEATURES

- ACPR (600 kHz) @ $P_{out} = 38.5$ dBm : -69 dBc
- Bias Condition : 5.5 A @ +12 V, 20 mA @ -10 V
- Small Signal Gain : 48 dB
- P_{sat} : 43 dBm



DESCRIPTION

The TA018-019-48-43 is a 8W power amplifier designed for high linearity applications in the 1.893 to 1.920 GHz frequency range. This amplifier utilizes high power devices that provide excellent linearity, high gain and wide dynamic range. High efficiency operation is achieved by using advanced GaAs PHEMT devices.

APPLICATION : PHS base station

ELECTRICAL SPECIFICATIONS (Ta = 25 °C)

| SYMBOL | DESCRIPTION | MIN | TYP | MAX | UNITS |
|-----------|--|------|------|-------|-------|
| FREQ | Frequency Range | 1893 | | 1920 | MHz |
| SSG | Small Signal Gain | | 48 | | dB |
| GOF | Small Signal Gain Flatness | | ±0.3 | ±0.5 | dB |
| GOT | Gain Variation Over Temperature | | ±0.5 | ±1.0 | dB |
| P_{sat} | Output Saturation Power | | 43 | | dBm |
| ACPR | ACPR 600kHz @ $P_{out} = 38.5$ dBm, Pi/4 DQPSK, Rate = 384 kbps, BW = 192 kHz, Root-Nyquist, Alpha = 0.5 | | -70 | -69 | dBc |
| VSWR, In | Input VSWR | | | 2 : 1 | ----- |
| VSWR, Out | Output VSWR | | | 2 : 1 | ----- |
| Vs | DC Supply Voltage | | +12 | | Volt |
| Id | Current Supply | | 5.5 | | A |
| Vg | DC Supply Voltage | | -10 | | Volt |
| Ig | Current Supply | | 20 | | mA |
| VDET | Detector Voltage @ 38.5 dBm | 2.4 | | 3.4 | Volt |
| OTR | Operating Temperature Range | -10 | +25 | +80 | °C |

CASE: HA4