

### PHS Band 16 Watt Amplifier

#### FEATURES

- ACPR ( 600 kHz ) @  $P_{out} = 41.5$  dBm : -69 dBc
- Bias Condition : 6 A @ +12 V, 40 mA @ -10 V
- Small Signal Gain : 51 dB
- $P_{sat}$  : 46 dBm



#### DESCRIPTION

The TA018-019-51-46 is a 16W 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		51		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		46		dBm
ACPR	ACPR 600kHz @ $P_{out} = 41.5$ dBm, Pi/4 DQPSK, Rate = 384 kbps, BW = 192 kHz, Root-Nyquist, Alpha = 0.5		-69	-67	dBc
VSWR, In	Input VSWR			1.7 : 1	-----
VSWR, Out	Output VSWR			2 : 1	-----
Vs	DC Supply Voltage (with built-in regulator)		+12		Volt
Id	Current Supply		6		A
Vg	DC Supply Voltage		-10		Volt
Ig	Current Supply		40		mA
VDET	Detector Voltage @ 41.5 dBm	2.4		3.4	Volt
OTR	Operating Temperature Range	-35	+25	+80	° C

**CASE: HA4**