824 – 849 MHz High-Efficiency 3-Volt AMPS Power Amplifier — TQ7111 — new

The TQ7111 is a high-efficiency power amplifier developed for portable terminals operating in the cellular band (824 to 849 MHz), and provides analog operation for AMPS (IS-19) handsets. The amplifier operates from a 3V to 5V supply and requires no external negative voltage supply.

The TQ7111 is packaged in a space-efficient, low-cost, power TSSOP-20 plastic package. The part is designed to require minimal external circuitry for matching and bias, simplifying design and keeping board space and cost to a minimum.

Features

- *3V operatiion*
- *Single supply*
- *Low voltage operation*
- *High efficiency*
- *High output power*
- *50-ohm matched input*
- *TSSOP-20 plastic package*

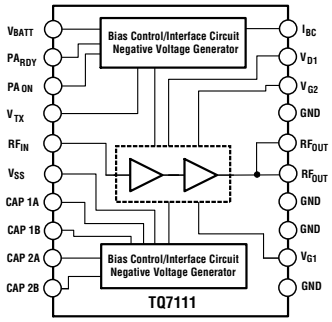
Applications

- *Minimal parts-count designs*
- *IS-19/AMPS mobile phones*
- *CDPD modems*

Electrical Specifications[1]

Parameter[2]	Min	Typ	Max	Units
AMPS Mode Output Power	+30.5	+31.5		dBm
AMPS Efficiency	50	60		%

Notes: 1. Test conditions: V_{BATT} = 3.4 V, P_{IN} = 7 dBm, I_{BC} = 0.2 mA, V_{TX} = 2.7 V, frequency = 824 and 849 MHz, T_C = 25° C, R_L = 50 ohms.
2. Min/max values are 100% production tested.



824 – 849 MHz High-Efficiency 3-Volt TDMA/AMPS Power Amplifier — TQ7121 — new

The TQ7121 is a high-efficiency power amplifier developed for portable terminals operating in the cellular band (824 to 849 MHz). The amplifier provides analog operation for AMPS (IS-19) and digital operation for TDMA (IS-136) handsets. It operates from a 3V to 5V supply and requires no external negative voltage supply.

The TQ7121 is packaged in a space-efficient, low-cost, power TSSOP-20 plastic package. The part is designed to require minimal external circuitry for matching and bias, simplifying design, reducing parts counts, and keeping board space and cost to a minimum.

Features

- *3V operatiion*
- *Single supply*
- *Dual mode operation*
- *High efficiency*
- *High output power*
- *TSSOP-20 plastic package*

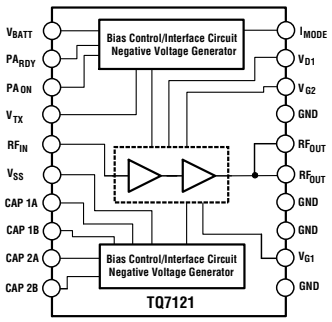
Applications

- *Minimal parts-count designs*
- *IS-136 mobile phones*
- *AMPS mobile phones*
- *CDPD modems*

Electrical Specifications[1]

Parameter	Min	Typ	Max	Units
TDMA Output Power (Rated)		+30		dBm
Adjacent Channel Power (ACP)	–27	–29		dBc
Alternate Channel Power (ALT)	–47	–49		dBc
TDMA Efficiency		42		%
AMPS Mode Output Power[2]		+31.5		dBm
AMPS Efficiency		50		%

Notes: 1. Test conditions: V_{BATT} = 3.4 V, P_{OUT} = 30 dBm, frequency = 824 & 849 MHz, I_{MODE} = 1.0 mA, V_{TX} = 2.7 V, T_C= 25° C. Min/max values are 100% production tested.
2. AMPS Mode P_{IN} = +7 dBm, I_{MODE} = 0.2 mA.



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