

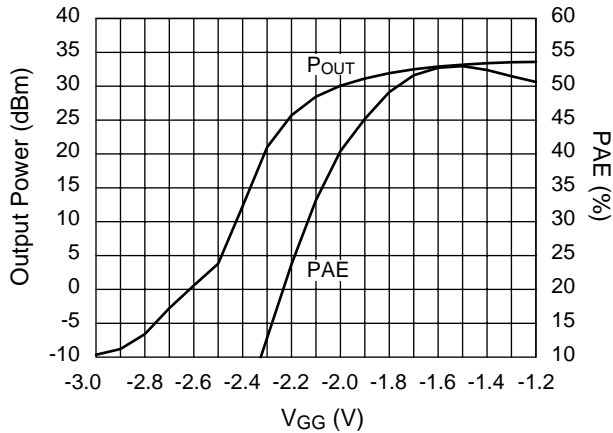
Electrical Specifications at 25°C

Quantity	Symbol	Condition	Min.	Typ.	Max.	Unit
Output Power	P_{OUT}	$T_{OP} = +25^{\circ}\text{C}$	32.5	33		dBm
		$V_{DS} = 2.8\text{ V}$, $T_{OP} = (-40\text{ to }+85^{\circ}\text{C})$	29.5	30.5		
Power Added Efficiency	η_{PAE}		45	50		%
Control Voltage Range	V_{GG}		-3		-1	V
2nd Harmonic	H_2			-40	-35	dBc
3rd Harmonic	H_3			-40	-35	dBc
Input VSWR	$VSWR_{IN}$	P_{OUT} (0–32 dBm), Controlled by V_{GG}	3:1	2:1		
Forward Isolation	$P_{OUT, STANDBY}$	$P_{IN} = 14\text{ dBm}$, $V_{GG} = -3.0\text{ V}$		-49	-40	dBm
Switching Time	t_R, t_F	Time from $P_{OUT} = -10\text{ dBm}$ to $P_{OUT} = 33\text{ dBm}$		1	2	μS
Burn Out	BO	$V_{DS} = 2.8\text{ V to }6.0\text{ V}$, $P_{IN} = 6\text{ dBm to }16\text{ dBm}$, $Z_S = 50\ \Omega$, Load $VSWR = 10:1$, All Phase Angles	No Module Damage or Permanent Degradation			
Stability	Stab.	All Combinations of the Following Parameters: $I_{DS} = 0\text{ A to }x\text{ A}$, $x = \text{Current at } P_{OUT} = 33\text{ dBm in } 50\ \Omega$ $P_{IN} = 10\text{ dBm to }16\text{ dBm}$, $V_{DD} = 2.5\text{ V to }4.5\text{ V}$, $T_{OP} = -40\text{ to }+85^{\circ}\text{C}$, Load $VSWR = 10:1$, All Phase Angles	No Parasitic Oscillations Above -36 dBm			
Slope P_{OUT}/V_{GG}		$P_{OUT} = -15\text{ dBm to }33\text{ dBm}$	10	100	150	dB/V
Noise Power		100 KHz BW 1805–1880 MHz Band		-85	-79	dBm
Phase Change		The Change in Phase When P_{OUT} Changes from 31 dBm to 32 dBm		5	10	Deg.

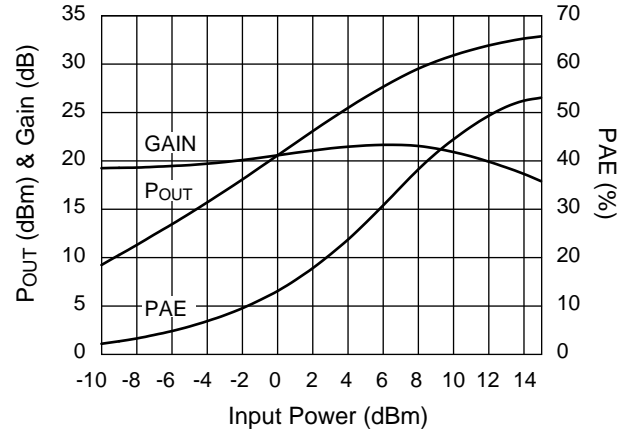
Characteristic Values:

 $P_{IN} = 14\text{ dBm}$ $f_c = 1710\text{--}1785\text{ MHz}$ $V_{DS} = 3.5\text{ V}$ $T_{OP} = +25^{\circ}\text{C}$ $V_{GG} = \text{Switched at } 217\text{ Hz with Duty Cycle of } 12.5\%$

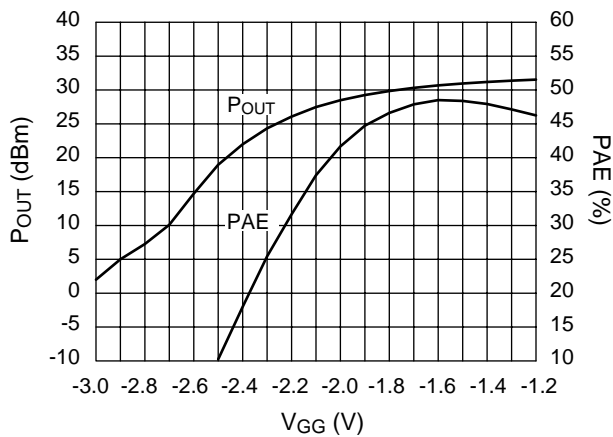
Typical Performance Data



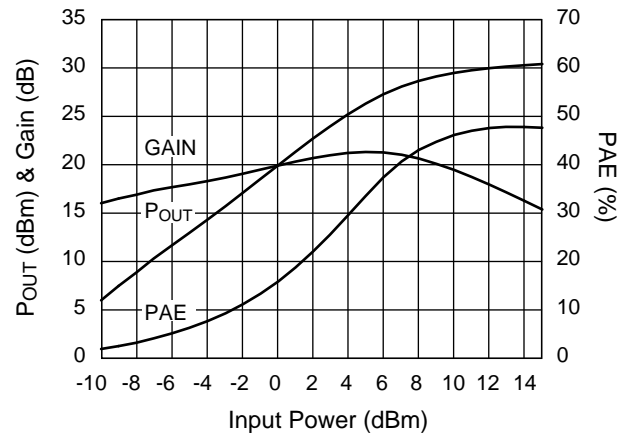
DCS 3.5 V Gate Sweep
 $P_{IN} = 14$ dBm, $V_{DD} = 3.5$ V,
 Frequency = 1.785 GHz



DCS 3.5 V Power Performance
 $V_G = -1.7$ V, $V_{DD} = 3.5$ V,
 Frequency = 1.785 GHz

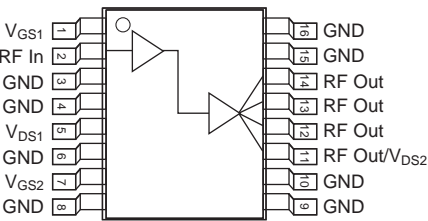


DCS 2.8 V Gate Sweep
 $P_{IN} = 14$ dBm, $V_{DD} = 2.8$ V,
 Frequency = 1.785 GHz



DCS 2.8 V Power Performance
 $V_G = -1.7$ V, $V_{DD} = 2.8$ V,
 Frequency = 1.785 GHz

Pin Out



Pin Configuration

Terminal	Symbol	Function
1	V _{GS1}	Stage 1 Gate Bias
2	RF In	RF Input
3	GND	Ground
4	GND	Ground
5	V _{DS1}	Stage 1 Drain Voltage
6	GND	Ground
7	V _{GS2}	Stage 2 Gate Voltage
8	GND	Ground
9	GND	Ground
10	GND	Ground
11	RF Out/V _{DS2}	RF Output/Stage 2 Drain Voltage
12	RF Out	RF Output
13	RF Out	RF Output
14	RF Out	RF Output
15	GND	Ground
16	GND	Ground