

**DESCRIPTION**

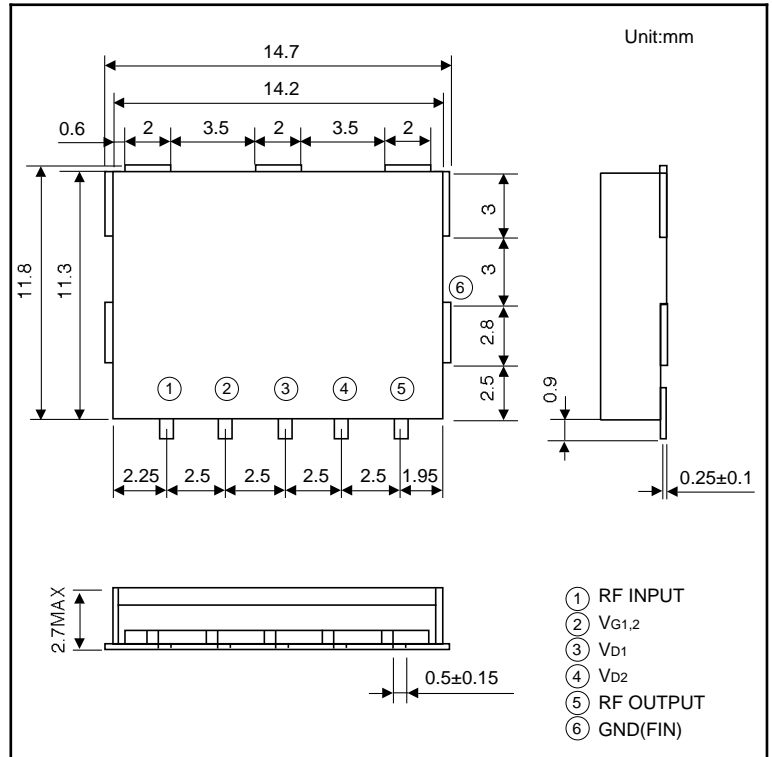
FA01215 is RF Hybrid IC designed for 900MHz band small size handheld radio.

**FEATURES**

- Low voltage 3.0V
- High gain 24dB(typ.)
- High efficiency 50%
- High power 34.5dBm

**APPLICATION**

GSM IV



**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Condition	Ta	Ratings	Unit
V <sub>D</sub>	Drain voltage	P <sub>O</sub> 34.5dBm	25°C	4.5	V
P <sub>in</sub>	Input power	Z <sub>G</sub> =Z <sub>L</sub> =50	25°C	15	dBm
T <sub>c(op)</sub>	Operation case temperature.		-	-20 to +85	°C
T <sub>stg</sub>	Storage temperature.		-	-30 to +90	°C

Note: Each maximum ratings is guaranteed independently and P.W.=580μs,duty=1/8 operation.

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
f	Frequency		890	-	915	MHz
P <sub>o</sub>	Output power	Note1	34.5	-	-	dBm
ht	Total efficiency	Note2	50	-	-	%
I <sub>gt</sub>	Total gate current		-3	-	0	mA
r <sub>in</sub>	Return loss	Note3	-	-	-6	dB
2fo,3fo	2nd harmonics, 3rd harmonics		-	-	-30	dBc
OSC.T	Stability	Note4	-	-	-60	dBc
V <sub>SWR.T</sub>	Load VSWR tolerance	Note5	No degradation or destroy			-

Note1: P<sub>in</sub>=13dBm,V<sub>D1</sub>=V<sub>D2</sub>=3.0V(Pulse: P.W.=580μs,duty=1/8),V<sub>G1,2</sub>=-2.0V,Z<sub>G</sub>=Z<sub>L</sub>=50

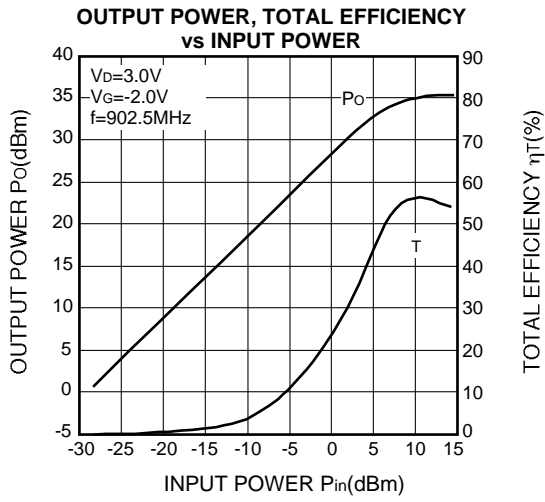
Note2: P<sub>o</sub>=34.5dBm(Pin controlled),V<sub>D1</sub>=V<sub>D2</sub>=3.0V(Pulse: P.W.=580μs,duty=1/8),V<sub>G1,2</sub>=-2.0V,Z<sub>G</sub>=Z<sub>L</sub>=50

Note3: P<sub>o</sub>=34.5dBm(Pin controlled),V<sub>D1</sub>=V<sub>D2</sub>=3.0V(DC),V<sub>G1,2</sub>=-2.0V,Z<sub>G</sub>=Z<sub>L</sub>=50

Note4: P<sub>o</sub>=0~34.5dBm(Pin controlled),V<sub>D1</sub>=V<sub>D2</sub>=3.0V(DC),V<sub>G1,2</sub>=-2.0V, L=3:1(all phase),Z<sub>G</sub>=50

Note5: P<sub>o</sub>=34.5dBm(Pin controlled),V<sub>D1</sub>=V<sub>D2</sub>=4.5V(Pulse:P.W.=580μs,duty=1/8),V<sub>G1,2</sub>=-2.0V, L=6:1(all phase),Z<sub>G</sub>=50

TYPICAL CHARACTERISTICS (Ta=25°C)



EQUIVALENT CIRCUIT

