

DESCRIPTION

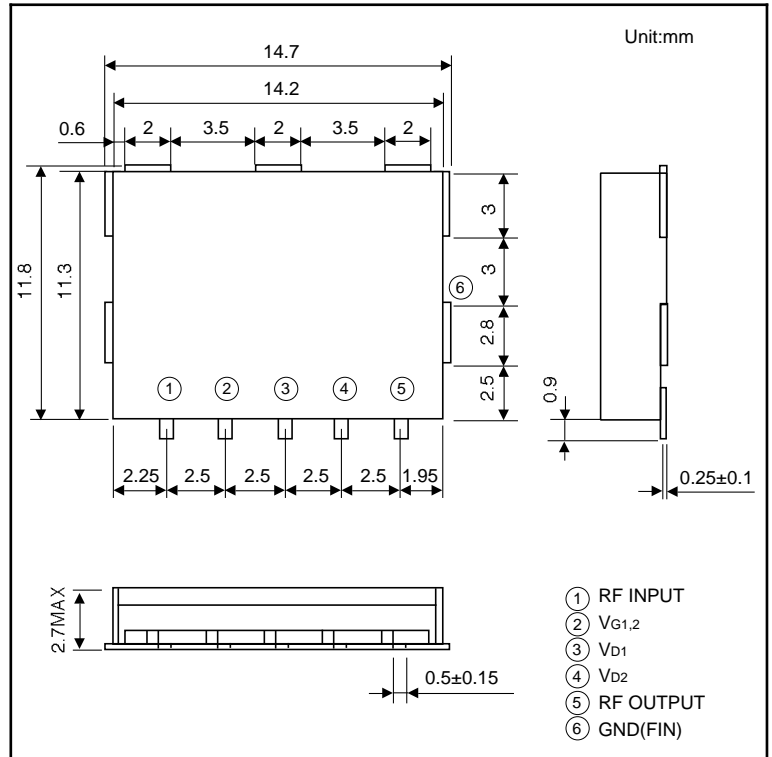
FA01215 is RF Hybrid IC designed for 900MHz band small size handheld radio.

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 _D	Drain voltage	P _O 34.5dBm	25°C	4.5	V
P _{in}	Input power	Z _G =Z _L =50	25°C	15	dBm
T _{c(op)}	Operation case temperature.		-	-20 to +85	°C
T _{stg}	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 _o	Output power	Note1	34.5	-	-	dBm
ht	Total efficiency	Note2	50	-	-	%
I _{gt}	Total gate current		-3	-	0	mA
r _{in}	Return loss	Note3	-	-	-6	dB
2fo,3fo	2nd harmonics, 3rd harmonics		-	-	-30	dBc
OSC.T	Stability	Note4	-	-	-60	dBc
V _{SWR.T}	Load VSWR tolerance	Note5	No degradation or destroy			-

Note1: P_{in}=13dBm,V_{D1}=V_{D2}=3.0V(Pulse: P.W.=580µs,duty=1/8),V_{G1,2}=-2.0V,Z_G=Z_L=50

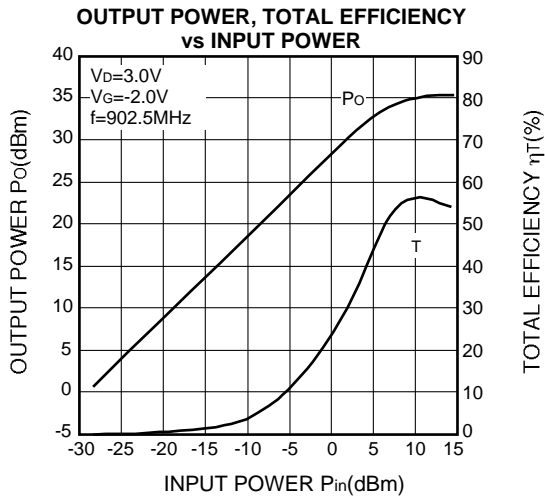
Note2: P_o=34.5dBm(Pin controlled),V_{D1}=V_{D2}=3.0V(Pulse: P.W.=580µs,duty=1/8),V_{G1,2}=-2.0V,Z_G=Z_L=50

Note3: P_o=34.5dBm(Pin controlled),V_{D1}=V_{D2}=3.0V(DC),V_{G1,2}=-2.0V,Z_G=Z_L=50

Note4: P_o=0~34.5dBm(Pin controlled),V_{D1}=V_{D2}=3.0V(DC),V_{G1,2}=-2.0V, L=3:1(all phase),Z_G=50

Note5: P_o=34.5dBm(Pin controlled),V_{D1}=V_{D2}=4.5V(Pulse:P.W.=580µs,duty=1/8),V_{G1,2}=-2.0V, L=6:1(all phase),Z_G=50

TYPICAL CHARACTERISTICS (Ta=25°C)



EQUIVALENT CIRCUIT

