

FA01220A

GaAs FET HYBRID IC

DESCRIPTION

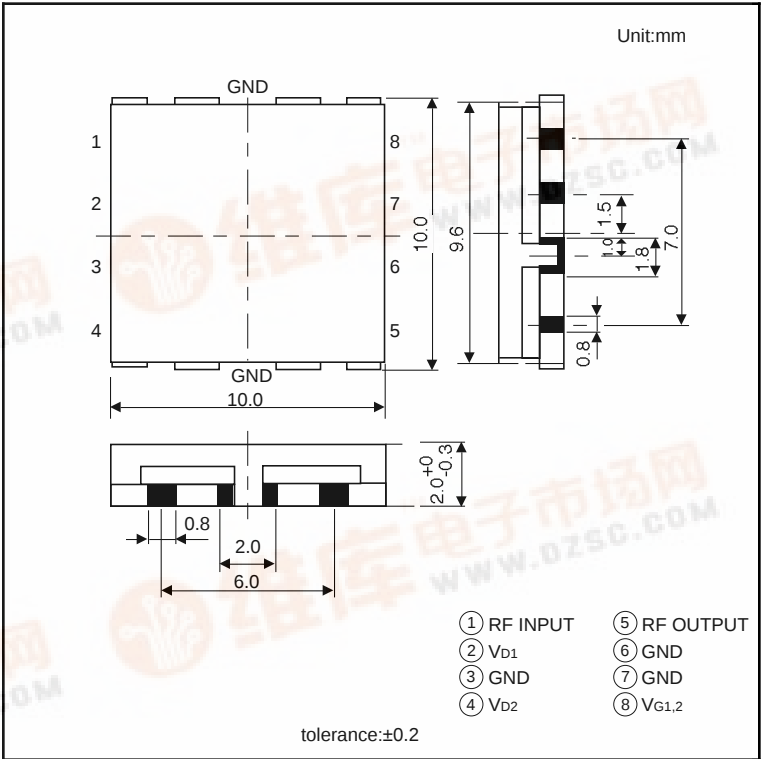
FA01220A is RF Hybrid IC designed for 1.5GHz band small size handheld radio.

FEATURES

- Low voltage 3.5V
- High gain 20.5B
- High efficiency 50%
- High power 30.5dBm

APPLICATION

PDC1.5GHz



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Condition	Ratings	Unit
V _D	Drain voltage	T _c =25°C, P _o ≤30.5dBm	4.5	V
P _{in}	Input power	T _c =25°C, Z _G =Z _L =50W	15	dBm
T _{c(op)}	Operating case temp		-20 to +85	°C
T _{stg}	Storage temp		-30 to +90	°C

Note: Each maximum ratings is guaranteed independently and duty=1/3 operation. T=20 msec

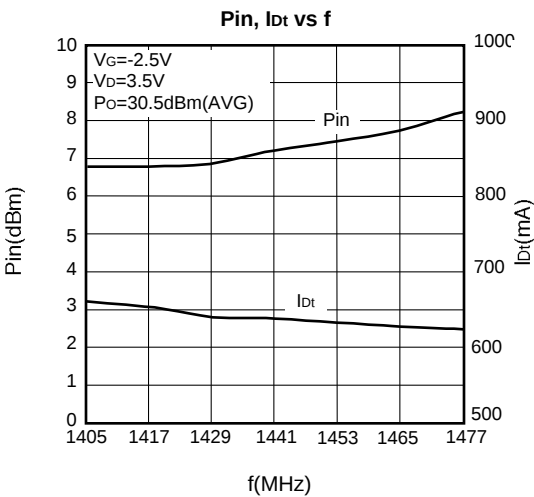
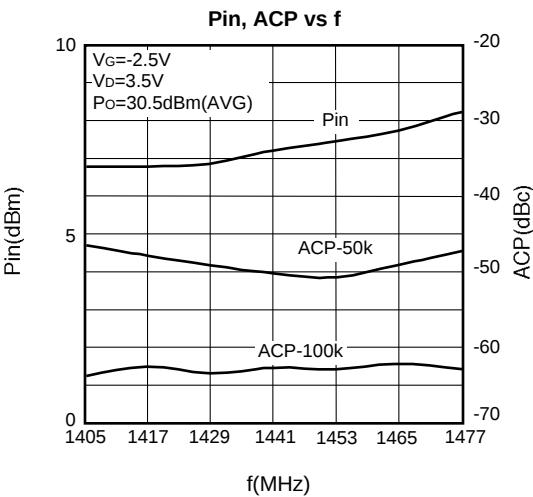
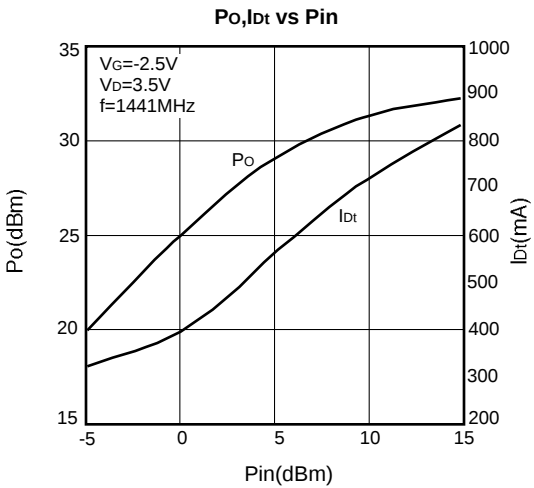
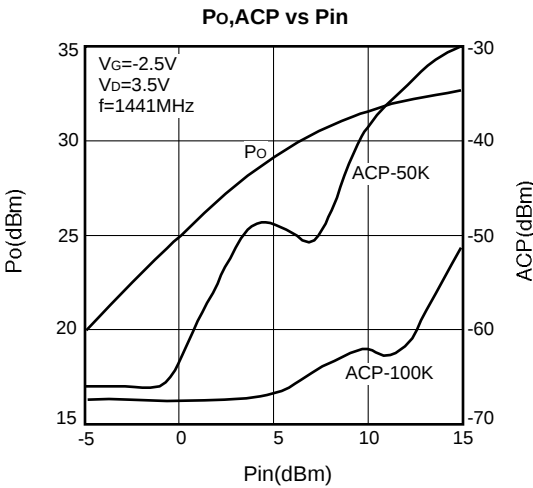
ELECTRICAL CHARACTERISTICS(T_a=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
f	Frequency		1429	—	1453	MHz
P _{in}	Input power	P _o =30.5dBm	—	(7)	10	dBm
I _{dt}	Total drain current	V _{D1} =V _{D2} =3.5V	—	640	720	mA
r _{in}	Return loss	V _{G1,2} =-2.5V	—	—	-6	dB
ACP50	±50kHz adjacent channel power	Z _G =Z _L =50W	—	—	-47	dBc
ACP100	±100kHz adjacent channel power	(p/4DQPSK)	—	—	-62	dBc
2f _o	2nd harmonics	Ditto	—	—	-30	dBc
3f _o	3rd harmonics	(CW)	—	—	-30	dBc

MITSUBISHI SEMICONDUCTOR (GaAs FET)
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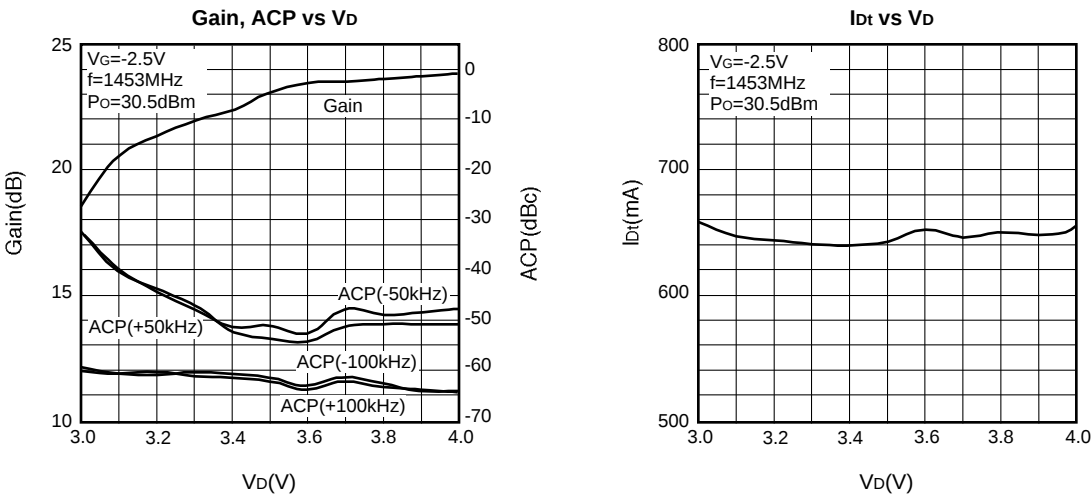
TYPICAL CHARACTERISTICS 1



MITSUBISHI SEMICONDUCTOR (GaAs FET)
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TYPICAL CHARACTERISTICS 2



EQUIVALENT CIRCUIT

