

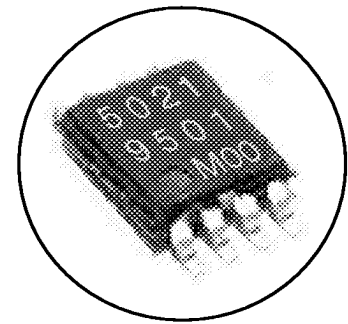
DESCRIPTION

The FMM5021MU is a MMIC driver amplifier with gain control that is designed for Personal Digital Cellular (PDC) applications in the 1.5GHz band. The driver amplifier includes three amplifier stages and a variable attenuator.

Fujitsu's stringent Quality Assurance Program assures the highest reliability and consistent performance.

FEATURES

- High Gain: 28dB (Typ.)
- High Gain Control Range: 35dB (Typ.)
- Low Adjacent Channel Power: -60dBc (Typ.)
- Low Current Consumption: 120mA (Typ.)
- Small Package Size: SSOP-8 **Plastic** package for SMT application
- Tape and Reel available



MU PACKAGE

ABSOLUTE MAXIMUM RATINGS (Ambient Temperature Ta=25°C)

Parameter	Symbol	Rating	Unit
Supply Voltage*	V _{DD1}	+6.0	V
	V _{DD2}	+6.0	V
Gain Control Voltage	V _{GC}	0 to +4.0	V
Input Power	P _{in}	0	dBm
Storage Temperature	T _{stg}	-55 to +125	°C
Case Temperature	T _{case}	-30 to +85	°C

*Maximum recommended supply voltage is 4.2V

ELECTRICAL CHARACTERISTICS (Ambient Temperature Ta=25°C)

Item	Symbol	Condition(1,4)	Limit			Unit
			Min.	Typ.	Max.	
Output Power at 1dB G.C.P.	P _{1dB}	-	-	18	-	dBm
Small Signal Gain	Gain	P _{in} = -25dBm	25	28	-	dB
Gain Control	G _{cont}	V _{GC} =0 to 3.0V P _{in} =-25dBm	-	35	-	dB
Adjacent Channel Power	P _{ACP}	P _{out} =15dBm PDC condition (3)	-	-60	-55	dBc
Input VSWR	VSWR _i	-	-	2.5	-	-
Output VSWR	VSWR _o	-	-	3.0	-	-
Current Consumption	I _{DDt} (2)	P _{out} =15dBm	-	120	145	mA
	I _{GC}	V _{GC} = 0 to 3.0V	-	0.5	1.0	mA

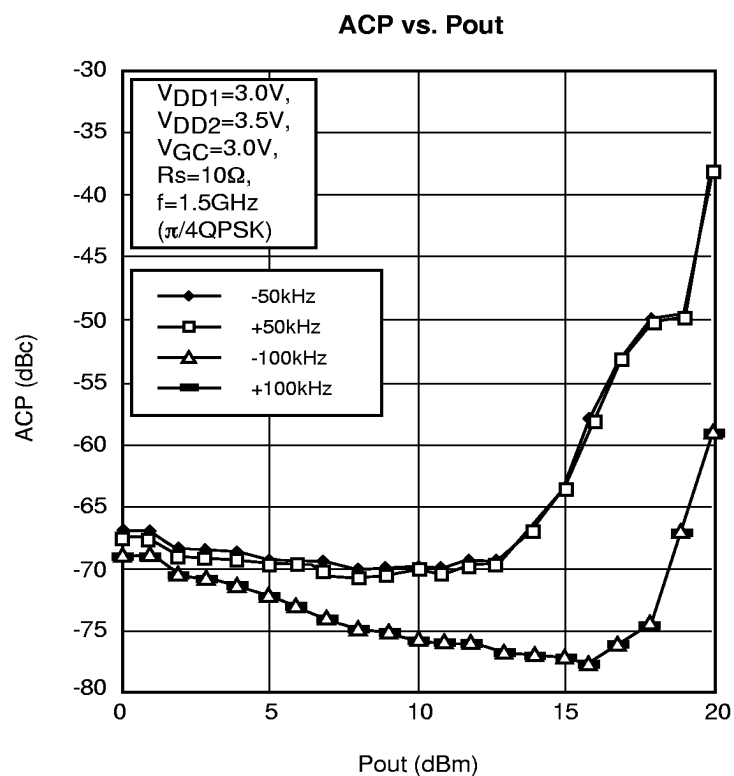
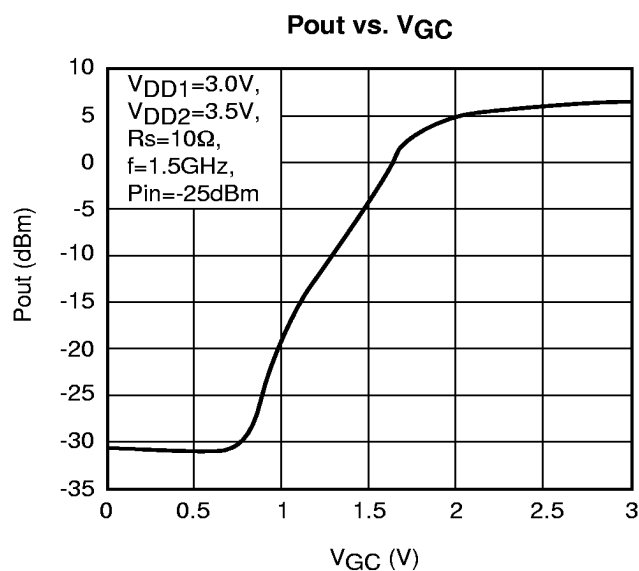
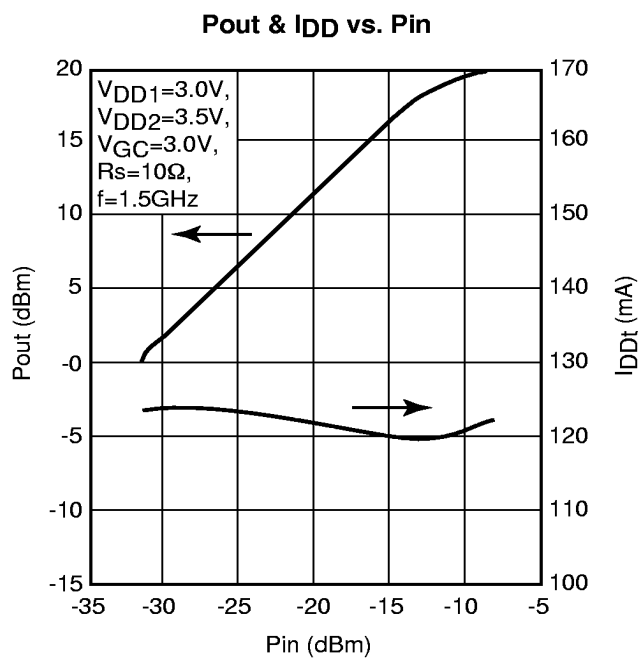
Note: 1. V_{DD1} = 3.0, V_{DD2} = 3.5V, V_{GC} = 3.0V, f = 1.5 GHz.

2. I_{DDt} = I_{DD1} + I_{DD2}

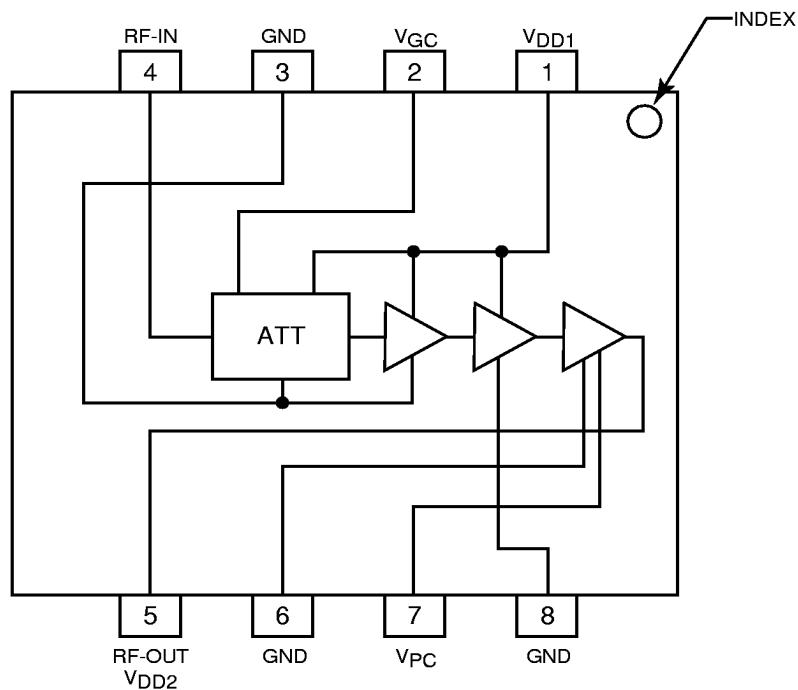
3. PDC Condition: $\pi/4$ - DQPSK Signal
Base Band Filter: R-Nyquist ($\alpha=0.5$)
Pattern: PN9
Bit Rate: 42Kbps.
Band Width: 21 KHz
Delta Frequency: 50 KHz

4. Electrical characteristics are measured with an external circuit.

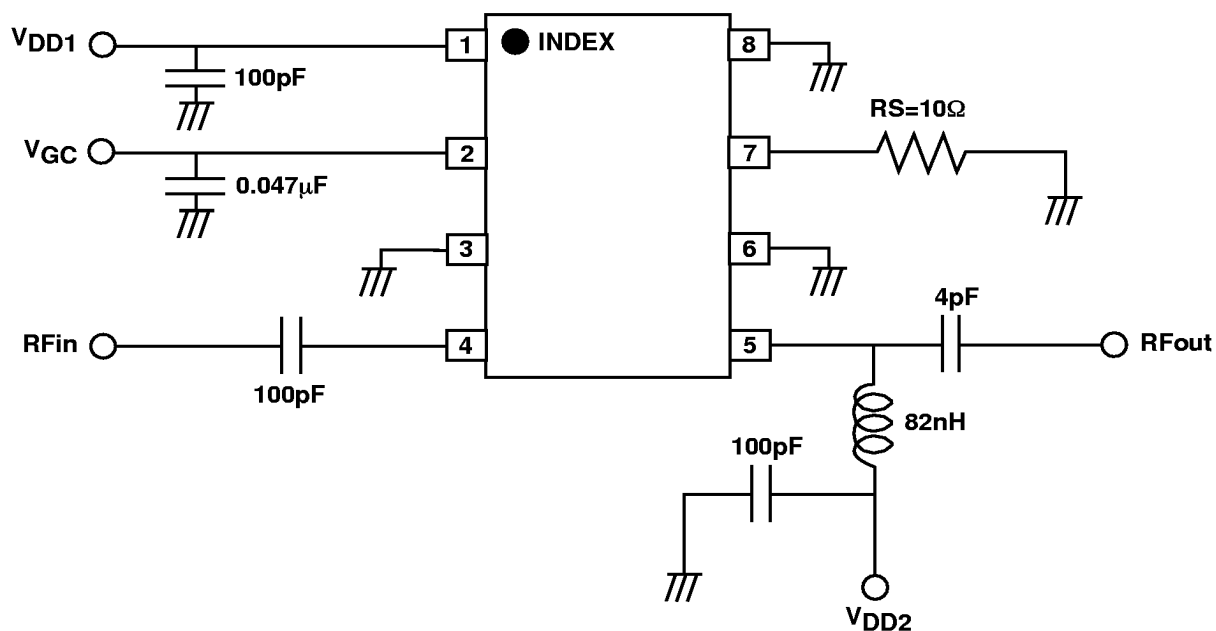
5. Electrical characteristics are assured on a lot basis by sample testing at an AQL = 0.1%, Level III. Any lot failure shall be 100% retested.



Package Pin Assignment

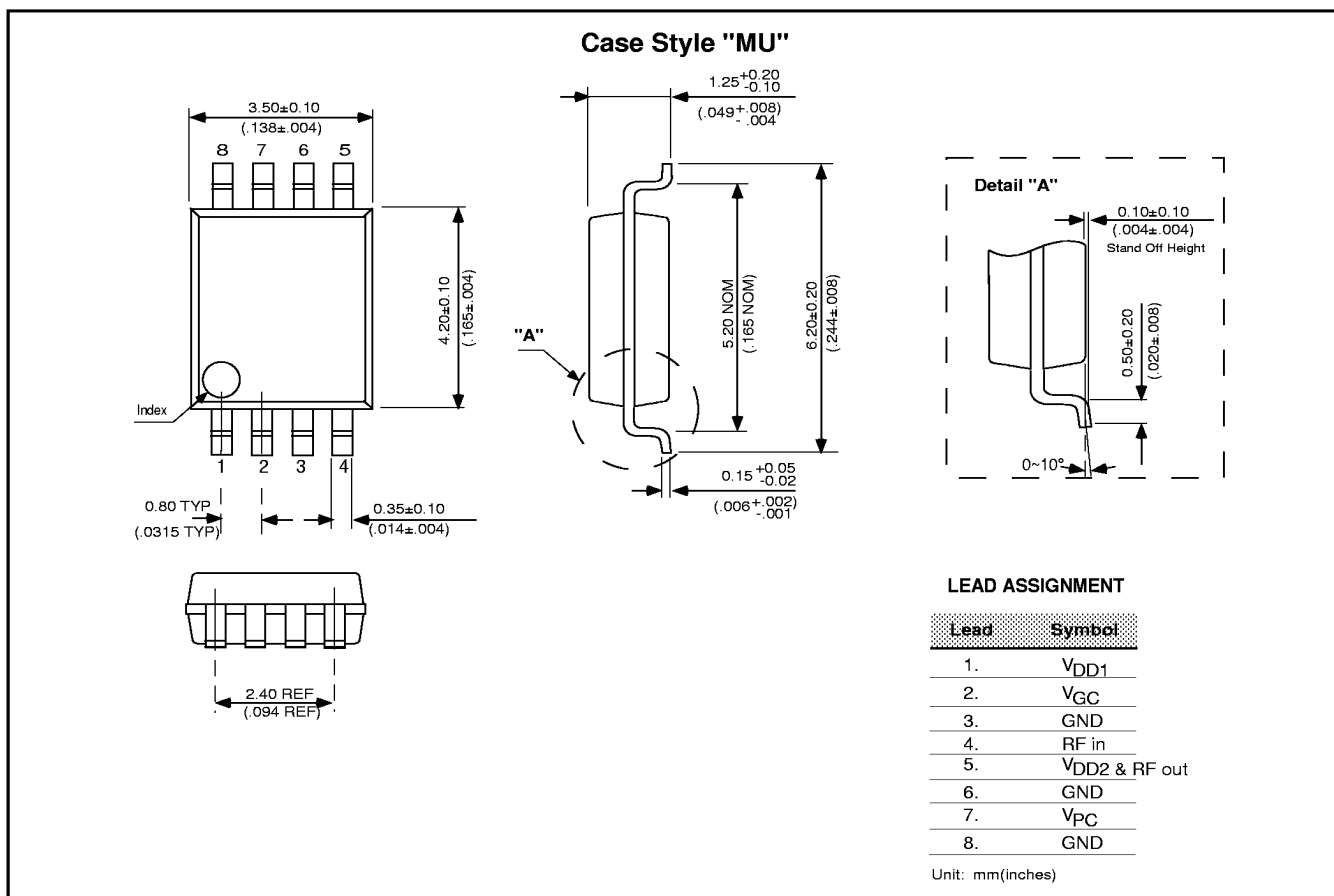


TEST CIRCUIT



FMM5021MU

1.5GHz MMIC Driver Amplifier



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Printed in U.S.A. FCSI0598M200

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