

TM7105PM: 4 Pin, 0.500" TO-8 Package (T4)

TN7105PM: 4 Pin, 0.450" Sq. Surface-mount Package (SM3)

FP7105PM: 4 Pin, 0.500" Sq. Flatpack (FP4)

BX7105PM: SMA Connectorized Housing (H1)

# RF/Microwave Amplifier



## Features

- No Additional Circuitry Needed, Internal Blocking Caps Included
- Unconditionally Stable
- Modifications Available at No Additional Charge
- Environmental Screening Available
- EAR99
- Superior Phase Noise Performance

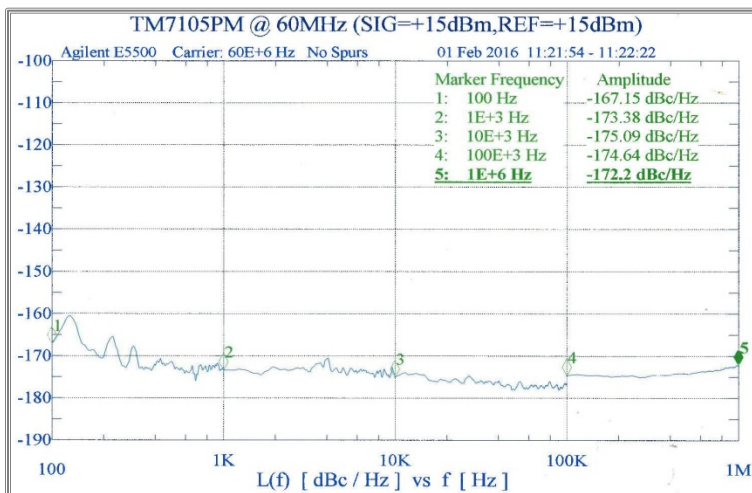
## Technical Specifications

Parameter	Typical 25°C	Min/Max 55°C to +85°C
Frequency Range	1 MHz – 250 MHz	1 MHz - 150 MHz
Gain	15 dB	13.5 dB Min.
Gain Flatness	+/- 0.4 dB	+/- 0.7 dB Max.
Noise Figure (10-150 MHz)	2.5 dB	3.5 dB Max.
Output Power @ 1 dB Compression	+15 dBm	+14 dBm
Output 3 <sup>rd</sup> Order Intercept	+30 dBm	---
Output 2 <sup>nd</sup> Order Intercept	+42 dBm	---
Reverse Isolation	18.5 dB	---
Input VSWR	1.5:1	2.0:1 Max.
Output VSWR	1.5:1	2.0:1 Max.
Supply Voltage	+5 volts	+5 volts
Supply Current	35 mA	45 mA Max.

## Maximum Ratings

Maximum (No Damage) Ratings	
Storage Temperature	-62°C to +125°C
Operating Temperature	-55°C to +125°C
Case Temperature	+125°C
DC Voltage @ 25°C	+ 8 volts
Continuous RF Input Power	+ 13 dBm
Short Term RF Input Power	50 Milliwatts (1 Minute Max.)
Maximum Peak Power	0.1 Watt (3 µsec Max.)

- Typical values are measured at 25°C, but not guaranteed.
- Max input power +13 dBm with 50 ohms terminated at RF output port.



## Guaranteed Phase Noise (60 MHz) Performance (dBc/Hz) at 25C

Frequency (Offset)	Typical	Guaranteed
100 Hz	-165	-160
1 kHz	-173	-165
10 kHz	-175	-170
100 kHz	-175	-170
1 MHz	-172	-168

**Instructions**

Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (ohm) system from -55°C to +85°C.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

**Outline Drawing**

(For reference only (FP7105PM))

