

**FEATURES**

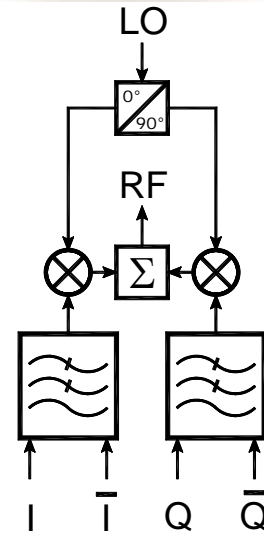
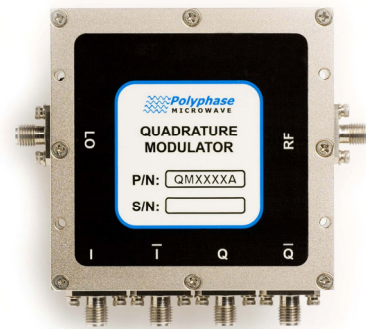
LO/RF Frequency:	4000 – 7500 MHz
Input IP3:	+23 dBm
Noise Floor:	-173 dBm/Hz
Sideband Suppression:	-34 dBc
LO Leakage:	-25 dBm
LO Power:	+19 dBm

**DESCRIPTION**

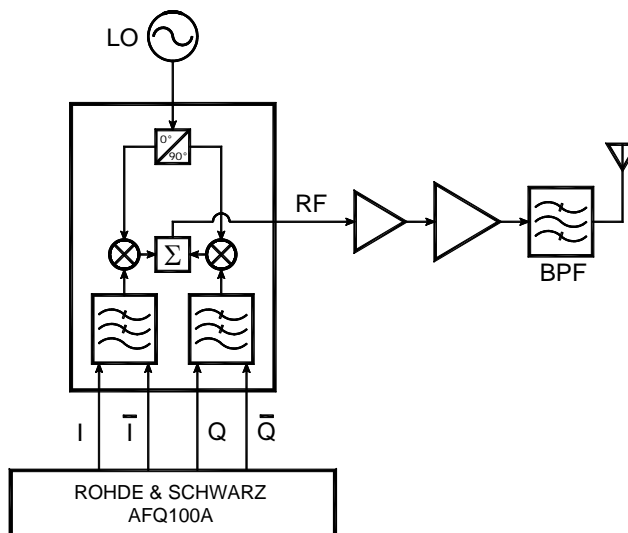
The QM4075A is a quadrature (I/Q) modulator optimized for direct modulation of an RF carrier. Differential I and Q inputs are mixed with the local oscillator (LO) to produce a modulated RF output.

Internally matched lowpass filters provide anti-alias functionality for removing Nyquist images and wideband noise when interfacing to high-speed D/A converters.

For more information on interfacing the QM4075A to high-speed D/A converters and single-ended sources, please see Application Note 101A, "Driving the QM Series Quadrature Modulators."



**TYPICAL APPLICATION: DIRECT CONVERSION TRANSMITTER**

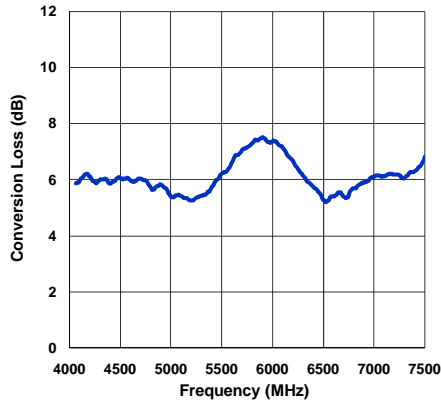




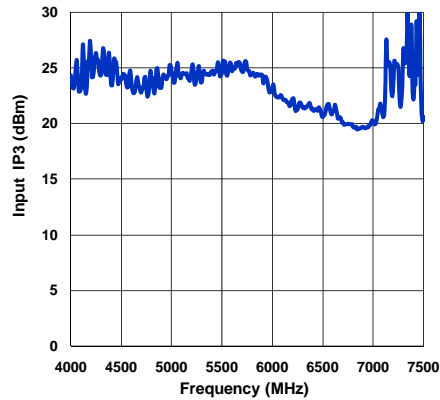
**TYPICAL PERFORMANCE CHARACTERISTICS**

Standard Test Conditions: +25°C, LO = +19 dBm, I/Q inputs = 0 dBm total @ 100 kHz.

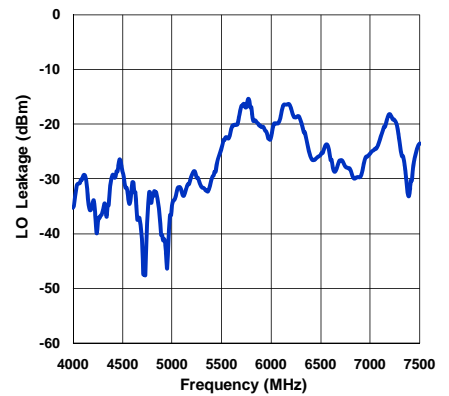
**Conversion Loss**



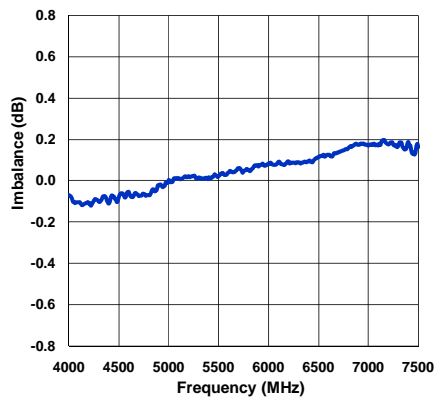
**Input IP3**



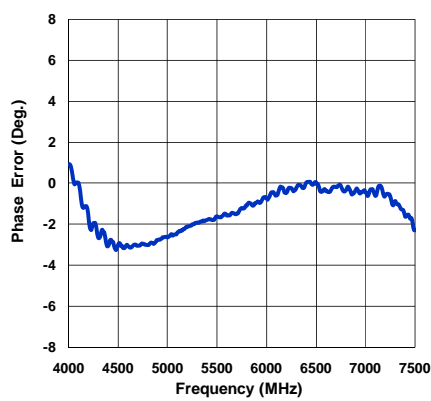
**LO Leakage at RF Port**



**Amplitude Imbalance**



**Quadrature Phase Error**



**Sideband Suppression**

