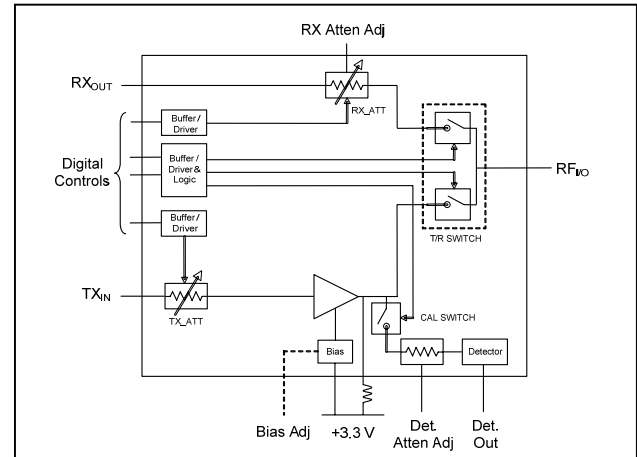


## Features

- MoCA Compliant Front-End GaAs IC
- Linear Power Amplifier
- Integrated PA Bias Control
- Transmit/Receive Switch
- Transmit Power Detector
- 0/3/6 dB Transmit Attenuator
- 0/15 dB Receive Attenuator
- 3.3 Volt Single Bias
- Integrated Digital Control Logic
- Compatible with EN2510 & EN2511
- Lead-free 3 mm 16-lead PQFN Package
- RoHS\* Compliant and 260°C Reflow Compatible
- 75  $\Omega$  Characteristic Impedance

## Functional Block Diagram



## Description

The XZ1003-QT is an integrated front end GaAs IC for MoCA High-band RF applications which is fully compatible with Entropic Communications chipset. It is housed in an industry standard 3 mm PQFN package and operates from a single 3.3 V bias. The chip includes a power amplifier, transmit/receive switch, power detector, switched attenuators, bias circuits and digital control circuitry. The transmit path includes two 3 dB switched attenuators and a power detector for gain adjustment and linearity optimization. A switched attenuator in the receiver provides a 15 dB gain step. The integrated bias circuit stabilizes transmit amplifier performance over temperature and process variation with optional bias adjustment. The device typically delivers 20 dBm at P1dB and +32 dBm OIP3 across the operating temperature range. The digital inputs control all circuit operating modes and are compatible with Entropic's MoCA chipsets.

**Contact M/A-COM Technology Solutions for the complete product datasheet**