



# Double-Balanced Mixer and Oscillator

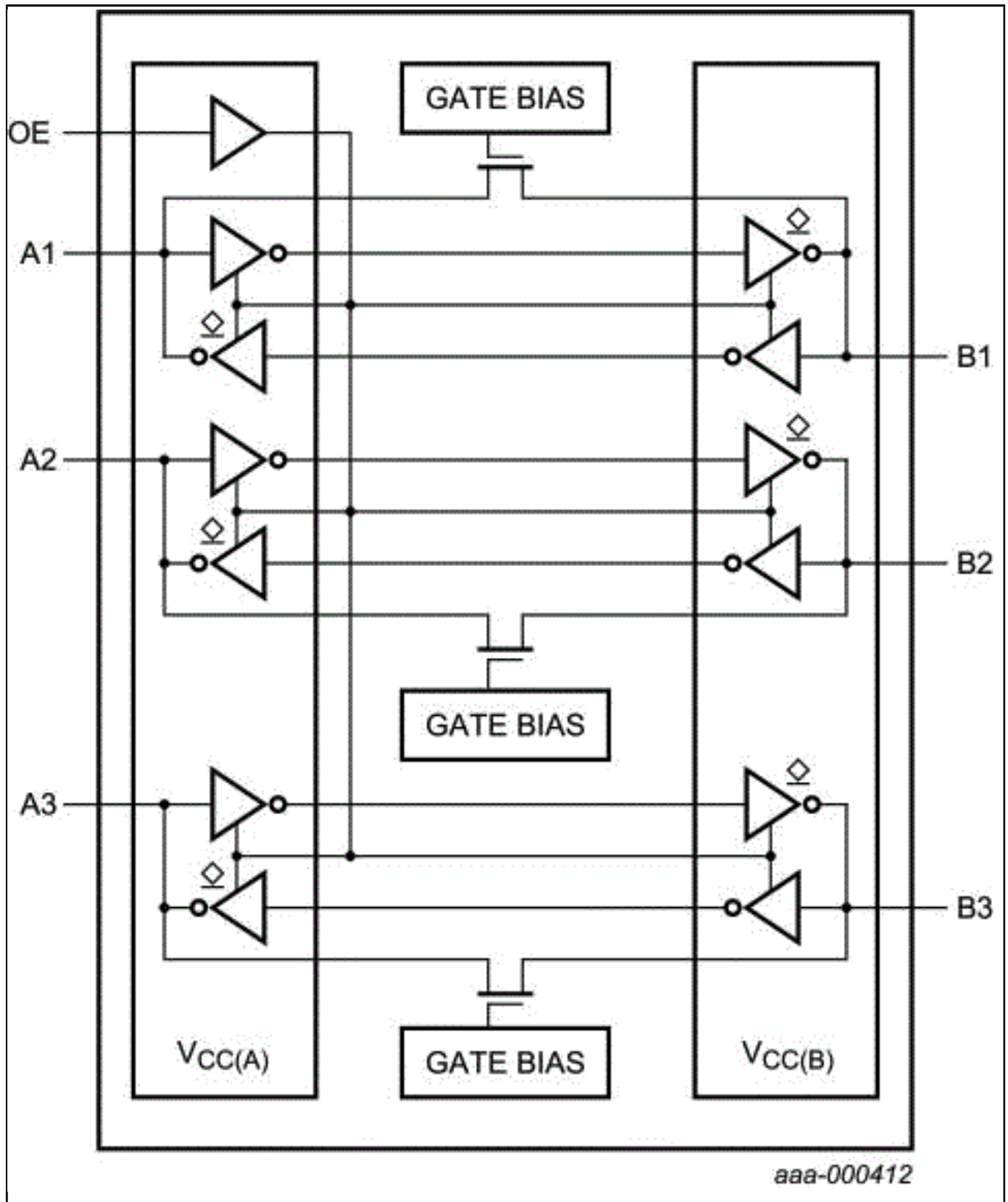
## SA612AD

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The SA612A is a low-power VHF monolithic double-balanced mixer with on-board oscillator and voltage regulator. It is intended for low cost, low power communication systems with signal frequencies to 500 MHz and local oscillator frequencies as high as 200 MHz. The mixer is a 'Gilbert cell' multiplier configuration which provides gain of 14 dB or more at 45 MHz.

The oscillator can be configured for a crystal, a tuned tank operation, or as a buffer for an external L.O. Noise figure at 45 MHz is typically below 6 dB and makes the device well suited for high performance cordless phone/cellular radio. The low power consumption makes the SA612A excellent for battery operated equipment. Networking and other communications products can benefit from very low radiated energy levels within systems. The SA612A is available in an 8-lead SO (surface-mounted miniature package).

# NTS0103 Block Diagram Block Diagram



**Note:** The information on this document is subject to change without notice.

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