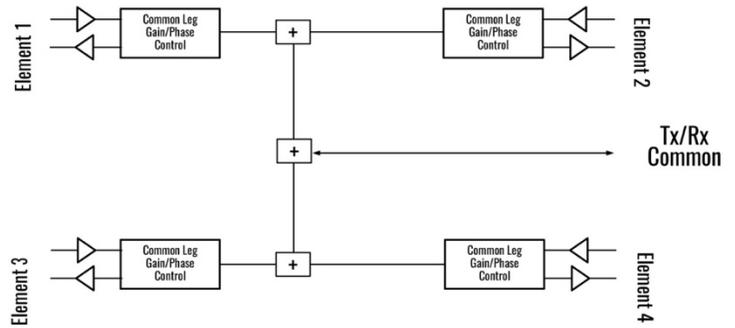


Product Features

- 8.50 – 10.55 GHz operation
- Supports 4 radiating elements
- Single beam Rx
- Single beam Tx
- +13 dBm Tx OP1dB
- +20 dB Tx gain
- +9 dB Rx coherent gain*
- 15 dB Rx NF
- +6 dBm Rx IIP3
- 6 bit phase control (LSB=5.625°)
- 6 bit gain control (LSB=0.5dB)
- Fast beam steering
- 7x7 mm QFN
- +1.8 V operation
- 1.9 W DC Tx mode
- 0.8 W DC Rx mode



Applications

Commercial and Weather RADAR

General Description

The AWS-0105 is a highly integrated silicon quad core IC intended for phased array RADAR applications. The device supports four radiating elements, single beam transmit, single beam receive and includes all requisite beam steering controls for 6 bit phase and gain control. The device provides 20 dB gain and +13 dBm output power during transmit mode and 9 dB gain and +6 dBm IIP3 during receive mode. Additional features include gain compensation over temperature, temperature reporting, and fast beam switching using eight on-chip beam weight storage registers. The device features ESD protection on all pins, operates from +1.8 V, and is packaged in a 56 lead 7x7 mm QFN for easy installation in planar phased array antennas.



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Document: AWS-0105-DSB
 Rev. 3

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Ordering Guide

Model	Package	MSL Rating	Package Description	Package Option	Package Marking
AWS-0105	QFN		7x7 mm 56 LD QFN		AWS-0105 YYWW ZZZZZZ