PRODUCT SUMMARY SHEET

MB86064 & MB86065
High Performance Digital to Analog Converters

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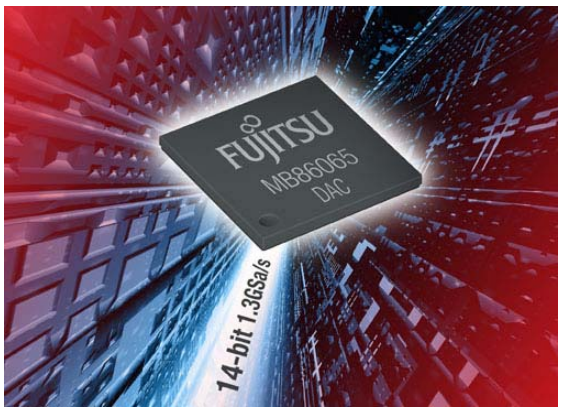
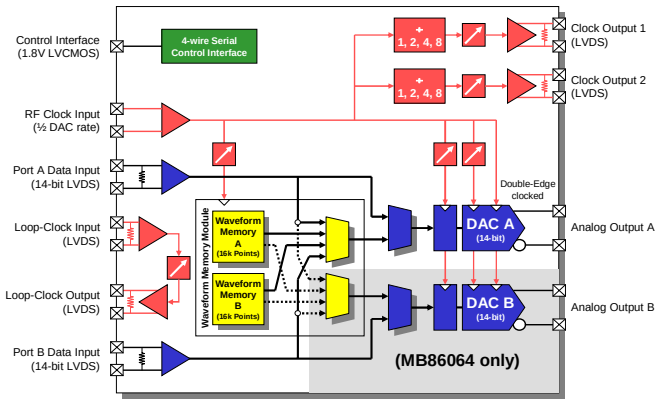
Overview

MB86064 & MB86065 represent Fujitsu Semiconductors' 2nd generation of high performance digital to analog converters (DACs).

- MB86064 Dual 14-bit 1.0GSa/s DAC
- MB86065 Single 14-bit 1.3GSa/s DAC





The MB86064 is ideally suited to radio applications providing dual transmit or transmit with diversity. The MB86065 supports conversion rates up 1.3GSa/s enabling higher generating frequencies combined with wider spurious-free generating regions.

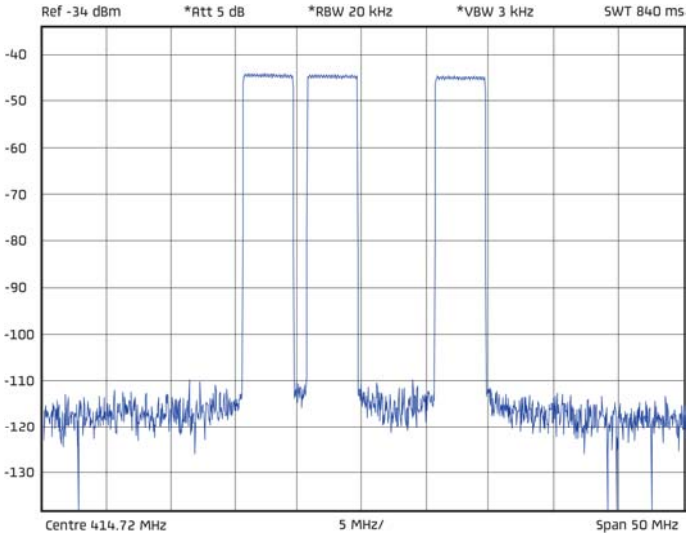
Both devices feature the market's shortest propagation delay combined with superior time-domain response for control based applications requiring low latency.

Key Capabilities

- Enables high direct-IF architectures for superior system performance & lower power
- Avoids the analog and digital overhead of IQ and direct conversion architectures
- Cost reduces DPD feedback by using IQ
- Supports multiple, including non-contiguous, narrow & wide band signal generation
- Integrated waveform memory for storing test and evaluation vectors on-chip

Applications

- Radio communications & test systems
  e.g. UMTS, LTE 2x20MHz TDD/FDD
  Ultra-Wideband & multi-carrier systems
  Remote Radio Heads (RRHs)
  Linear & Doherty power amplifiers with crest factor reduction and digital pre-distortion
  Micro / Millimeter wave radio backhaul
- Cable modem multi-channel DRFI
  16-ch DOCSIS or 12-ch EuroDOCSIS
  64 & 256 QAM
- Medical & technology laser drive circuits
  For pulsed & arbitrary waveform generation
  Semiconductor scribing, dicing & drilling
- Low latency digital control systems
  e.g. particle accelerator electromagnets
- Medical & Test instrumentation



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http://www.fujitsu.com/emea/services/microelectronics/dataconverters/
E-mail: mixedsignalproducts.fseu@uk.fujitsu.com

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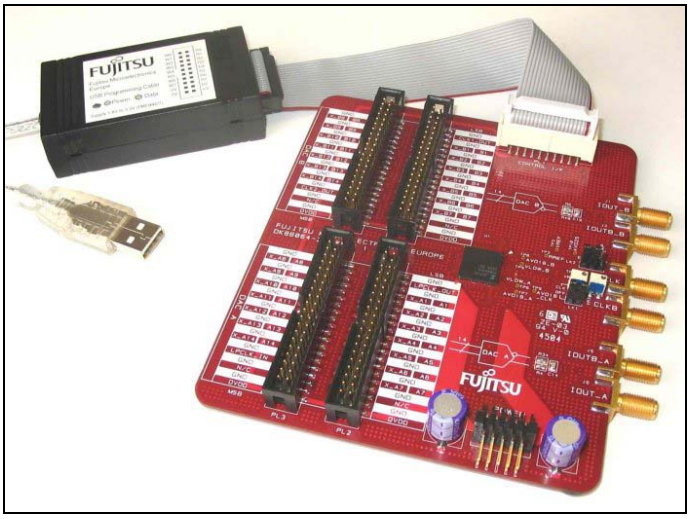
System Integration

Robust data interfacing, to compatible FPGAs & ASICs, is assured by a proprietary Loop-Clock architecture. This unique solution automatically maintains the necessary clock-to-data timing across variations in process, voltage and temperature (PVT). No calibration is required during production or over lifetime operation, thus avoiding otherwise potentially expensive total system costs.

Development Kits

- DK86064-2 / DK86065-2



The development kit includes everything to minimise time to get started with evaluation board, PC-USB interface and PC software utility.

Optional FPGA adaptors also available.

Part Numbers

- MB86064PB-G-K1E1
- MB86065PB-G-K1E1

Both devices are RoHS 6/6 compliant.

Production Status

Active.

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