

## Interface IP

# **USB2.0 Transceiver for**

# TSMC 40nm LP

#### **Overview**

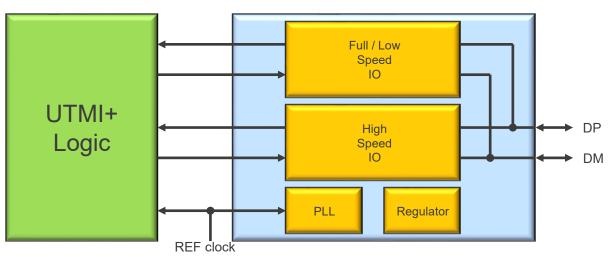
The Renesas USB2.0 Transceiver is useful analog 1port transceiver hard macro for UTMI (USB2.0 Transceiver Macro cell Interface) + Level3 of TSMC 40nm LP process. This macro can be configured to operate as a USB2.0 peripheral or USB2.0 host controller.

#### **Key Features**

- Renesas USB2.0 Transceiver can be used for analog transceiver of following interface.
  - Universal Serial Bus Specification Revision 2.0
  - Battery Charging Specification Revision 1.2
- Technology is TSMC 40nm LP 1p6M .
- Supply voltage can be applied 1.1V for core voltage and 3.3V for IO voltage.
- USB transfer mode is high-speed (480 Mbps), full-speed (12 Mbps), and low-speed (1.5 Mbps) modes.
- A terminal resistance, pull-up resistor, and pull-down resistor are included.
- Input reference clock is 48MHz, 24MHz, 20MHz and 12MHz.

### **Block Diagram**

#### **USB2.0 Transceiver**



\*This IP is contract design IP. Please contact for detail.

\*Before purchasing or using any Renesas Electronics products listed herein, please refer to the latest product manual and/or data sheet in advance.

CTPD-24-117 R06PF0098EJ0100