

DESCRIPTION

FC7790 is a tri-band CDMA transceiver with receiver diversity capable of SHDR. FC7790 is a product of FCI's zipRF™ family. The FC7790 covers band class such as BC0, BC1, BC3, BC4, BC6, BC10, BC14, and BC15. It is a highly integrated chip working with a dual power supply such as 3.0V and 2.5V. Because zero-IF architecture is used for FC7790, additional components such as bulky IF SAW filters and other IF matching components are no longer required. FC7790 is featured to operate in the high data rate EVDO. Three-wired serial-to-parallel interface (SPI) protocol enables FC7790 to operate in the various modes. FC7790 contains complete tri-band receiver's main and diversity path such as LNA, down-conversion mixer, channel selection filter (CSF), Rx VCO, Rx PLL, and LO distribution block. FC7790 also contains complete tri-band transmitter path such as baseband amplifier, up-converter, RF variable-gain block, drive amplifier, Tx VCO, Tx PLL, and LO distribution block. FC7790 is optimized to have high SNR in 1x and EVDO Rev. A receive and transmit mode. In addition, FC7790 fully support simultaneous GPS reception with LNA, down-mixer, channel selection filter, GPS VCO/PLL, and GPS ADC. FC7790 is available in 4.95 x 4.95 x 0.6 mm WLCSP package.

APPLICATIONS

- Tri-band CDMA 1x/EVDO Rev.A diversity (SHDR) mobile phone or data card.

REVISION HISTORY

- Preliminary version release: Apr, 20, 2012
- Preliminary version release: Aug, 14, 2012
- Preliminary version release: Mar, 09, 2013

For latest specifications, technical questions and additional product information, visit website or e-mail

FCI Inc.
11th Floor, Kins Tower, 25-1
Jeongja-Dong, Bundang-Gu,
Sungnam City, Gyunggi-do,
463-811, KOREA

Website: <http://www.fci.co.kr>
E-mail: info@fci.co.kr
Phone: 82-31-711-6444
Fax: 82-31-711-0313

FEATURES

- Single-chip tri-band transceiver with receiver diversity and SHDR without need of external LNA supporting simultaneous GPS reception
- FC7790 covers band class of BC0, BC1, BC3, BC4, BC6, BC10, BC14, and BC15.
- Low noise and highly linear LNA, mixer, and CSF for tri-band CDMA receiver
- Low noise, highly linear, wide dynamic range transmitter with baseband amplifier, up-converter, drive amplifier
- Low noise and highly linear GPS receiver with 2bits or 3bits selectable GPS ADC
- Automatic DC-offset calibration, filter calibration, VCO calibration
- Fully integrated low phase noise Rx, Tx, GPS Fractional-N PLL with fine frequency resolution
- Secondary Rx VCO and PLL for SHDR
- Greater than 85-dB transmit power control
- Support 3-wired SPI protocol
- 4.95 x 4.95 x 0.6 mm WLCSP package

BLOCK DIAGRAM

