SX-3000

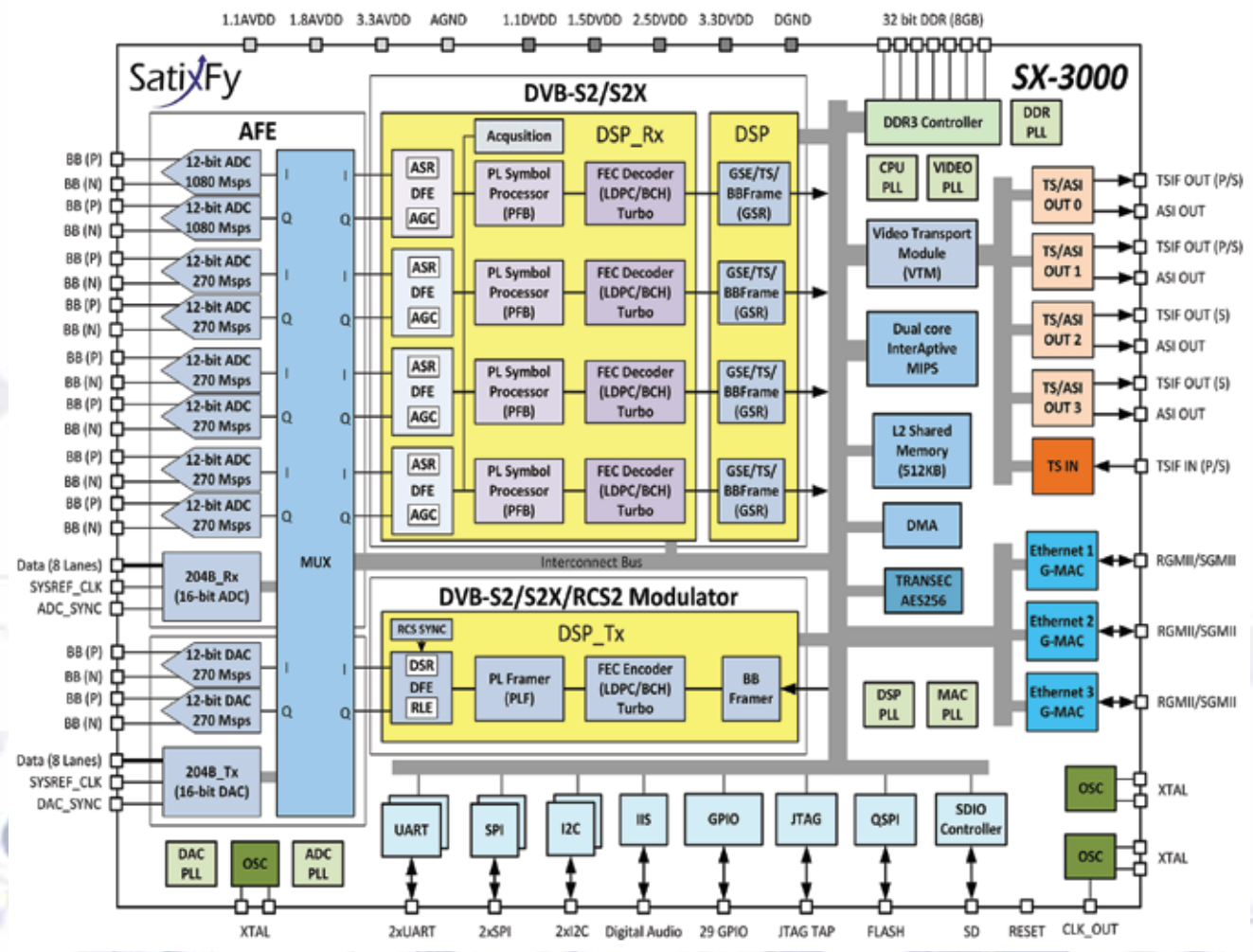
Ultra-Wideband DVB S2X/RCS2 Modem SoC

The satellite equipment industry is entering a new era. New communications platforms emerge in the form of High Throughput Satellites (HTS), LEO and quasi-satellite unmanned devices (drones and the like). To fully utilize the new capacity offered, a unique silicon ASIC was designed and manufactured by SatixFy: the SX-3000 Ultra-Wideband System on Chip (SoC).

The SX-3000 is based on the most advanced standards (i.e., DVB-S2X/DVB-RCS2) and is suitable for proprietary implementations. The SX-3000 comes in several flavors and has a unique software/hardware hybrid architecture that combines the benefits of Software Defined Radio (SDR) together with custom hardware accelerators. Different firmware versions can be downloaded Over the Air (OTA) ensuring long product lifecycles with future upgrade capabilities.

Main Features:

- Fully compliant DVB-S2/S2X mod/demod
- Wideband 500 Msps HTS transponder support
- 4 Receive channels, incl. Channel Bonding
- Internal 12 bit ADC/DAC or external interface (JESD 204B)
- Very low SNR reception
- DVB-RCS2 or proprietary MF-TDMA return channel
- 3 GB Ethernet interfaces
- Built-in AES 256 encryption engine
- MIPS dual-core host CPU for multiple applications
- Multiple CEVA XC-323 DSPs

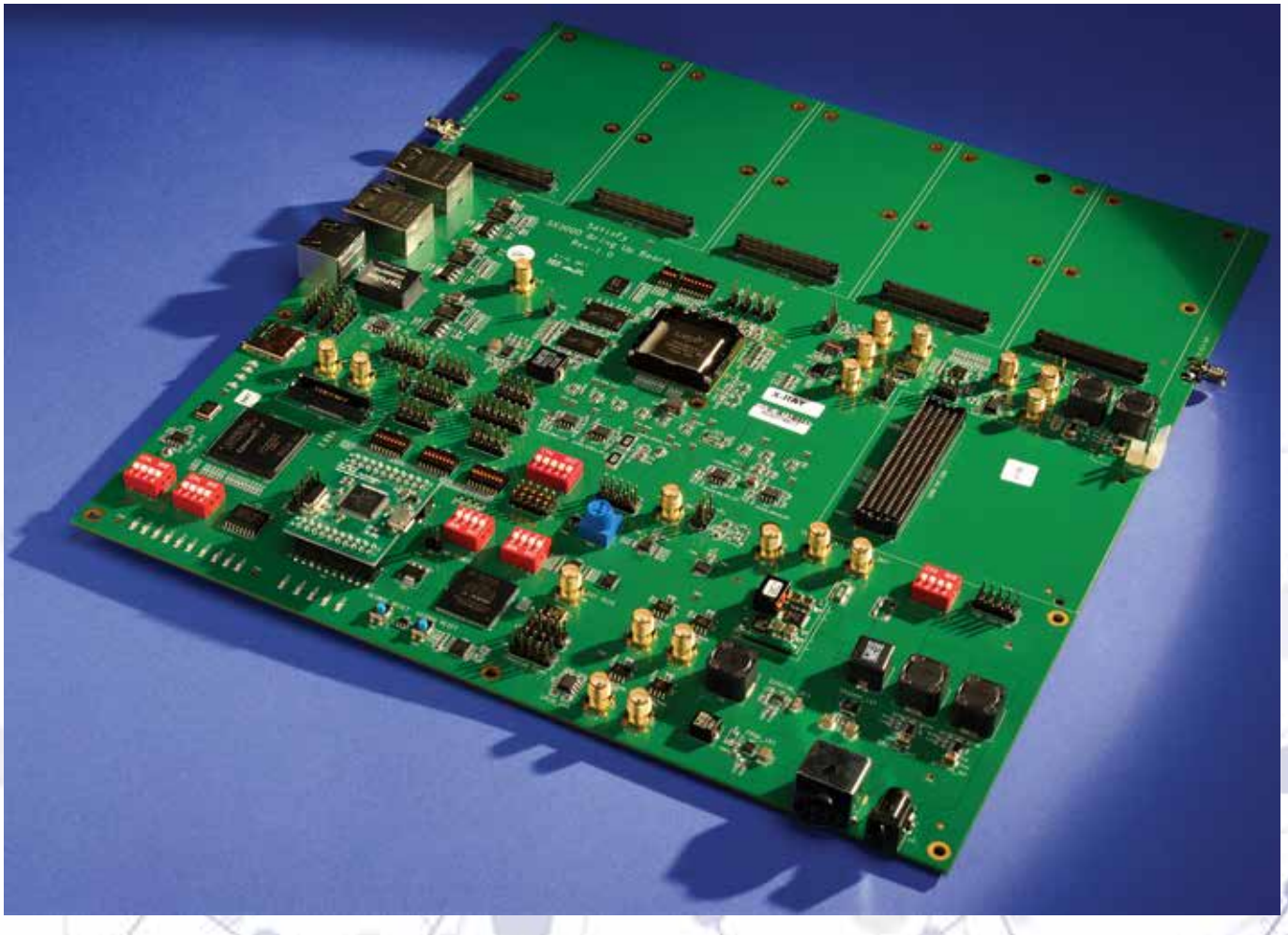


SX-3000
Evaluation Board

The Evaluation Board includes the SX-3000 ASIC and all the required circuitry to support the operation of all interfaces and options available in the SX-3000 for all known use cases. Add-on modules, such as an L-band front end, provides interfaces to common commercial L-band LNBs and BUCs including power feed and signaling. SatixFy provides other add-on boards according to application needs.

Main Features:

- SX-3000 ultra-wideband SoC
- 4 GB DDR, 256 MB Flash, SD card (optional - socket available) memories
- 3 GB Ethernet ports, RJ45 or optionally SGMII
- On-board support for FPGA and CPLD, for extended control and data acquisition
- FMC connector for external JESD204B ADC, DAC or SGMII high-speed boards
- Controlled clock generation & distribution
- Multiple I/O interfaces (UART, I2Cs, I2S, SPIs, GPIO, JTAGs)
- Standard 12V DC power supply
- RF add-on boards:
  - Single Rx ultra-wideband tuner – 500 MHz@950 to 2150 MHz range
  - Up to 4 Rx wideband tuner – 150 MHz@950 to 2150 MHz range
  - Single Tx ultra-wideband modulator – DVB-S2/S2X, 500 MHz@950-2450 MHz
  - Single Tx narrowband modulator – DVB-S2/S2X/RCS2, 10 MHz@950-2450 MHz



Consumer VSAT
Reference Board

The highly integrated SX-3000 SoC, together with the required RF and peripheral electronics, allow for the manufacture of an affordable "cigarette box" sized VSAT board that can fit inside an indoor or outdoor unit enclosure. It is specifically designed to meet consumer and low-cost market needs (i.e., broadband Internet, IoT/M2M).

Main Specifications:

Forward channel

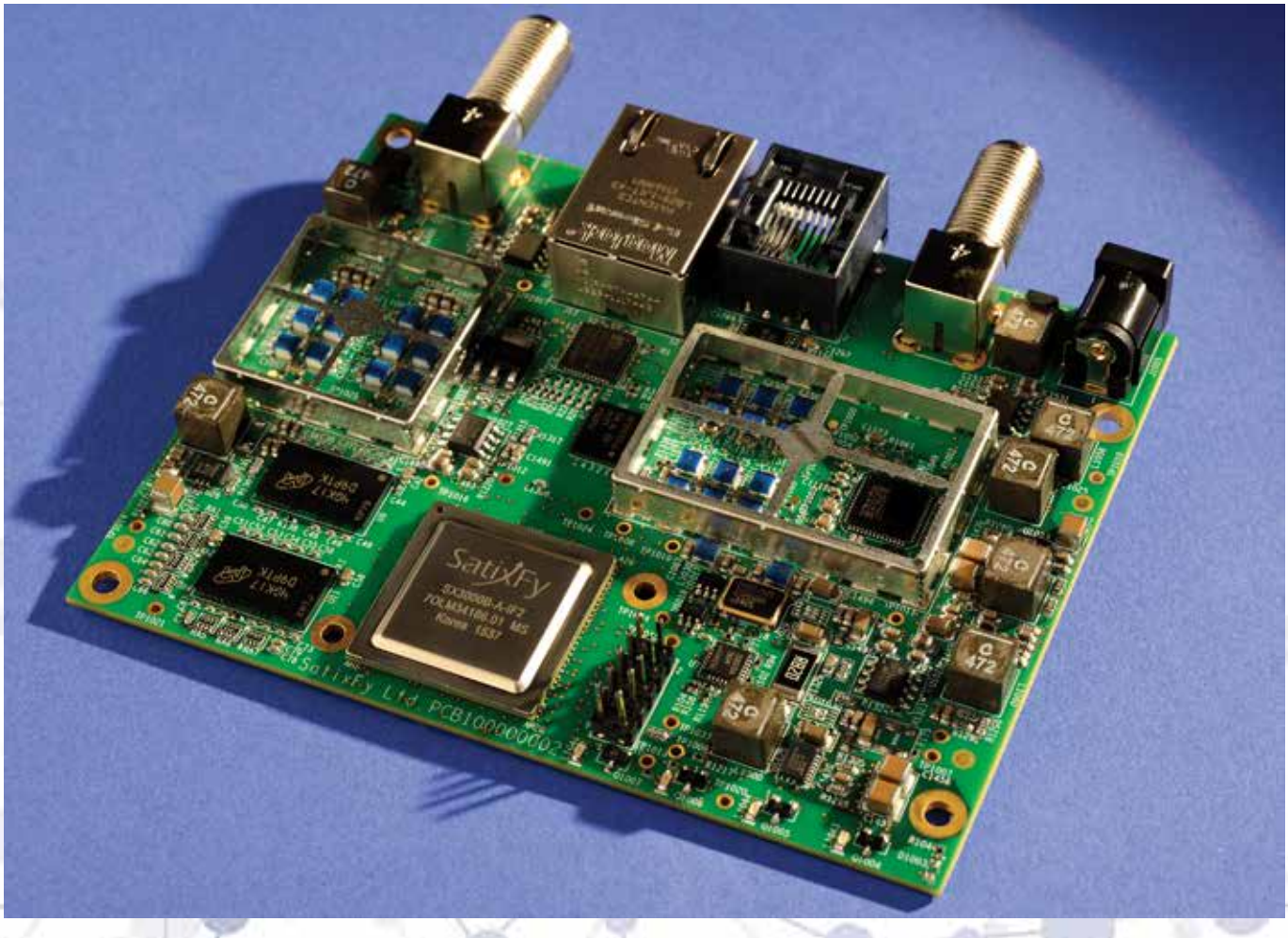
- DVB-S2X, DVB-S2, ACM
- Rate 150 Msps / 500 Mbps
- L-band: 950-2100 MHz, F-Type, 75 Ohm

Return Channel

- DVB-S2X, DVB-RCS2, Proprietary (MF-TDMA)
- Rate 10 Msps / 20 Mbps
- L-band: 950-2400 MHz, F-Type, 75 Ohm

Interfaces

- 2 GB Ethernet ports



About Satixfy
SatixFy Ltd. is a fabless company developing ASICs (Application Specific Integrated Circuit) designed to significantly enhance ground equipment performance, reduce costs and increase satellite efficiency, enabling a broader audience to enjoy a larger variety of applications via satellite.

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