

Photonic BiCMOS ASIC – transmitter modulator with integrated driver

Fiber Optical Communication

- Multi – Gbit/sec circuits
- Highly linear components
- Complex optical modulation
- High integration level

Available Components

- Transimpedance amplifiers
- Drivers for Mach-Zehnder-Modulators
- VCSEL drivers
- Space Circuits and Components



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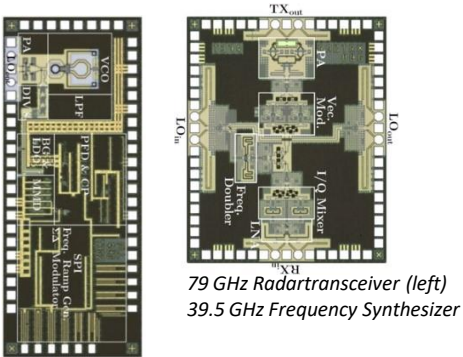
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IHP`s BLOCKS & DESIGNS

Accelerate Your Designs by
Exploiting Available Circuits

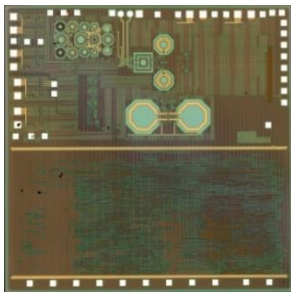


RF and Analog IP



Frequency Bands

- Up to 6 GHz - RF Components
- 60 GHz Transceiver and Components
- 60 – 160 GHz Radar & Sensors
- 245 GHz Transceiver Circuits
- On-Chip Antennas

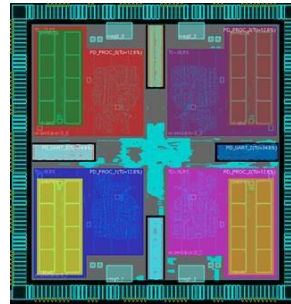


UWB Transceiver

Available Components

- ADC & DACs and Logic
- Frequency Synthesizer
- Impulse Radio UWB Transceiver and Components
- Space Circuits & Components
- mmW Bio Sensors

Digital IP



PISA Multicore Processor Chip

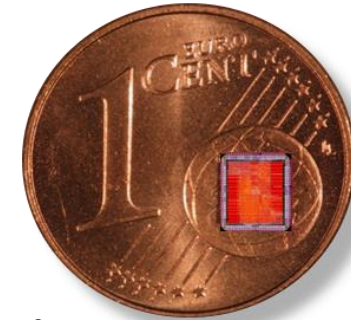
Communication Cores

- LDPC En/Decoder
- RS En/Decoder
- Ultra-high data rate PTMP MAC processor
- Ultra-high data rate broadband OFDM baseband processor
- Viterbi decoder / convolutional encoder
- Peaktop processor core (32-bit)
- Waterbear multiprocessor framework
- The four-core LEON2 multiprocessor (PISA multiprocessor)



PISA Multicore Processor Chip Test Setup

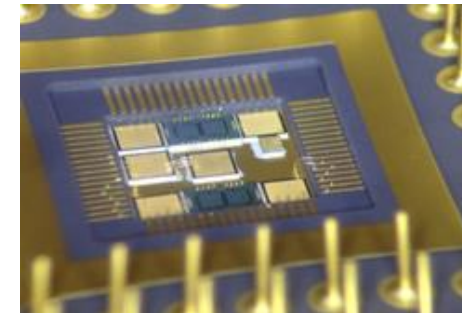
Digital IP



Cryptoprocessor

Hardware Accelerators

- Crypto-Cores: AES-128, ECC-233, SHA-1
- Baseband DSSS
- Internal Clock Source (DCO)



Rad Hard Test Structure

Interfaces

- I2C Slave
- SPI Slave
- MDIO Slave
- 10BASE-T and 100BASE-TX Digital Controller IP