IF YOU CAN DREAM IT, WE CAN DESIGN AND DELIVER IT.
The Analog & Mixed-Signal Specialists.

Signal Processing Group

- Specializing in Analog and Wireless Design ASICs and modules
- Application Specific Integrated Circuits (ASIC)
- Application Specific Standard Products (ASSP)
- Fabless Mfg Experts

With 24 years of continuous business operations, SPG brings its advanced product development experience to address your design concerns.
We address your specific concerns and provide solutions for your challenges.

- Analog/Mixed Signal / Wireless Circuit Design
- Test, Applications and demonstration PCBs
- Foundry management, low cost prototypes, production
- Packaging, many options
- Extensive IP
- Experience

* Application specific standard product
**Application specific integrated circuit.
Technical support for:
✓ System analysis
✓ IC functional & test specification
✓ Convert conceptual ideas to ICs

Management of the development program to first prototype.

Assistance in, and management of:
the supply and manufacturing chain.
FCC, ISO, TS IEC-Q, UL and other standards bodies compliance testing.

Assistance and management of:
circuit packaging, prototype board builds, and circuit validation against specification.
### Examples of projects done

#### Signal Processing Group

<table>
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<tr>
<th><strong>Analog/mixed signal:</strong></th>
<th>A/D converters: 8, 10, 12, 16, 20 bit. CMOS/BiCMOS, 10kHz – 50Mhz.</th>
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<td>D/A converters: 8, 12, 16, 18 bits. CMOS and BiCMOS. Upto 1 Ghz.</td>
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<td>Audio control and switching circuits.</td>
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<th><strong>MMIC/Wireless:</strong></th>
<th>FM Broadcast band TX/RX. X Band, Ka band (various mixers amplifiers, modulators, PLL’s)</th>
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| **High speed data transmission:** | USB3, HDMI 1.4, Equalizers and TXCVRs.                                    |

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<th><strong>Displays:</strong></th>
<th>LED Drivers, LCD drivers,</th>
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Device Development Process

1. Conceptual Design Discussion
2. SPG Feasibility Study N/C
3. Program Plan Project Outline
4. Project Proposal and Acceptance

Signal Processing Group

1. Circuit Design and Simulation
   - RESULTS: SCHEMATICS AND SIMULATION RESULTS
2. Layout and Layout Verification
   - RESULTS: GDS II DATABASE AND LOG FILES
3. Prototype Devices: 1st Silicon
   - RESULTS: EVALUATION DATA, PRELIMINARY TEST DATA
4. Device Characterization
5. Production Devices
## Benefits & Services

### Benefits of device integration using SPG services
- Reduce cost, Reduce size, Protect IP
- Improve reliability
- Lower power dissipation, Enhance product image

### Broad Range of Technology Access and Expertise:
- CMOS/BiCMOS
- SiGe
- High voltage BiCMOS
- High frequency MMIC
- MCM, MCP

### Turnkey service:
- System analysis
- Product definition
- Design and Develop
- Fabricate
- Package
- Test
- Screen (Mil, S – Class)

### Manufacturing service
- Contract manufacturing
- Foundry management
- No hassle unit pricing
- Proven results
Contact Information

For fastest response
24/7 contact:

602-626-0272

Email:
spg@signalpro.biz