

Complete ASIC & FPGA Design Services

EXECUTION EXPERIENCE

3+ complex SoCs with complex subsystems and partitions

All major FPGAs and processors

HW/SW/IP integration

DEEP & WIDE EXPERTISE

SoC RTL/Verification to GDSII

FPGA design/prototyping

System/SW/HW engineering

Multiple domains/applications

EFFECTIVE PROGRAM MANAGEMENT

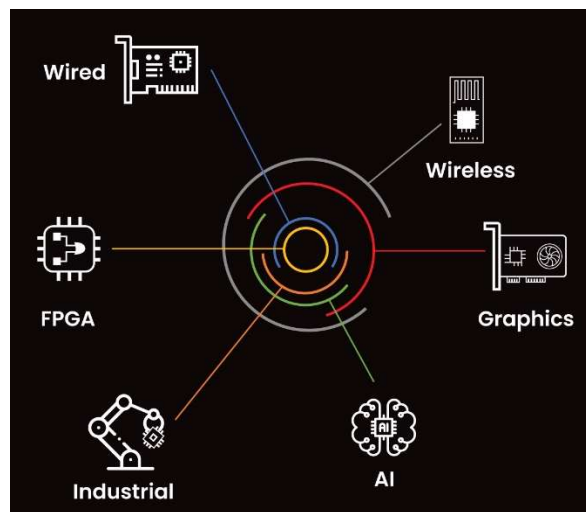
Hybrid Agile dev model

Highly transparent

communication

Issue escalation mechanism

Risk mitigation planning



- Fast growing provider of premier semiconductor technical solutions
 - Founded in 2018
 - 100+ design engineers
- Led by industry veterans with a total experience of 100+ years
- 10+ global major customers served
- Multiple complex SoCs delivered at < 10nm
- Skilled in using all major FPGA and processors

Driven by technology disruptions and a raging pandemic, global majors in the hi-tech industry are looking to scale and outcompete rivals by outsourcing critical pieces of development work to innovative design services partners. Large design services companies are unable to build a high quality pool of resources with specialized skills due to their large overheads and previous generation financial models. As a result, they can only subcontract and act as a distribution channel for niche, specialized smaller firms such as P2F that have built enduring supply chains at the right cost.

Since inception, P2F's expert teams have successfully tapped out tens of complex SoCs in various domains and industry segments for major semiconductor and technology businesses worldwide.

Our engineers are extremely comfortable working across a variety of technology nodes, tools and flows, design tools and techniques, and are skilled at handing off designs without surprises.

P2F provides end to end services for semiconductor design from RTL to GDS-II and sign-off, design verification, library development, DFT, AMS design and FPGA design and development.

P2F's team follows a hybrid execution model that combines both agile and waterfall development models. It gives the team the flexibility to be deployed at any stage without affecting project schedules while meeting aggressive timelines.

SPECIFIC

DIFFERENTIATORS

Adjacent area expertise

Custom recipes for quick TAT

with focus on QOR

EDA cloud flow execution

STABLE RESORCE

MODEL

Business continuity and stability

Continuous training and

improvement

Customer needs drive flexibility

FLEXIBLE EXECTION

MODEL

Consulting

- On site
- All timeframes
- Flexible deployment
- International support
- T&M Billing

Turnkey

- On or off site
- SoW based
- PM Leadership
- NRE based billing

Case Studies: 5/7nm Physical Design

DESCRIPTION & DELIVERABLES	PARTITIONS	NODE	COMPLEXITY
Partition closure for AI low power CPU chips	20	5nm	2GHz, ~1.5Mn instances
Partition closure for AI based chips	3	5nm	PCIe Gen5 Subsystem closure
Partition closure for GPU chips	15	5nm	~2Mn instances
Partition closure for AI chips	5	5nm	~2Mn instances
Partition closure for Graphics chips	30	7nm TSMC	~1Mn instances
Partition closure for Modem chips	8	7nm TSMC	~1Mn instances
Partition closure for Modem chips	30+	7nm TSMC	~1Mn instances

Case Studies: FPGA/System Design

DESCRIPTION & DELIVERABLES	TECHNOLOGY & COMPLEXITY
Flash Emulation Product	4 Xilinx Artix XC7A200T F1156 FPGAs Zynq ZC7045 Controller 2 ONFI Lanes / FPGA 4G/8G ONFI Lane I/F 8 ONFI Lanes / VF 8, 8GB DDR3 – ON board (SODIMM)
Image Processing Platform / DIN Rail PLC Controller	Zynq Dual ARM Cortex-A9 @ 866MHz, Artix-7 FPGA 1GB DDR-2, 512MB NAND FLASH 1 x 10/100/1000 BASE-T On module, 1 x USB 2.0 OTG SD Card, JTAG, SDIO, CAN 2.0, 1 x UART, 1 x I2C 4.5-5.5V DC Input, 5W (Max) 2 x 100 Pin SAMTEC LSHM-150 connector 1 x 80 Pin SAMTEC and 1 X 40 Pin connector
Machine Vision Platform	Zynq Dual ARM Cortex-A9 @800MHz. ARTIX-7 FPGA Image compression using JPEG2000 1GB DDR-3, 512MB NAND FLASH 1x10/100/1000 BASE-T on module Ethernet interface 1x USB 2.0 OTG on module interface SD card, CAN2.0, I2C, SPI -20 to 70°C operating temperature SMP mode RT Linux for Soft PLC and HMI VxWorks BSP support in AMP and SMP configuration



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