HANDSHAKE SOLUTIONS

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IP talks

ChipEstimate™

Handshake Solutions.....

- … helps its customers implementing innovative silicon solutions by offering a combination of:
  - IP blocks (such as microcontrollers)
  - Design tools
  - Services

- … enables to exploit the inherent benefits of Handshake Technology
  - Ultra low power
  - Reduced ground bounce
  - Low electromagnetic emission
  - Robustness against voltage and temperature variations

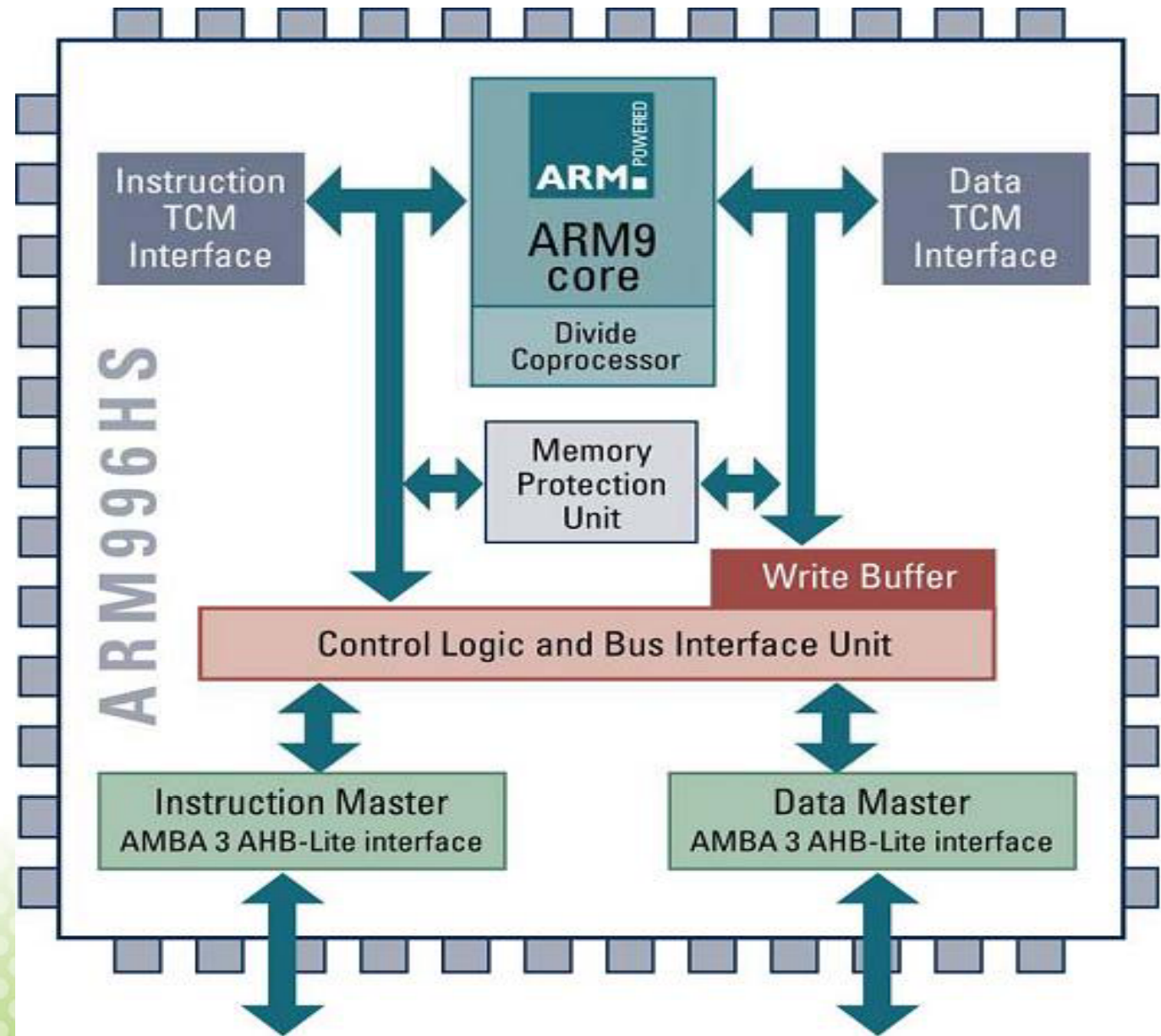# ARM - Handshake Solutions Partnership

- Partnership announced in October 2004

- Jointly develop ARM core implementations
  - Enables new classes of applications where needs for ultra-low power, low electromagnetic emissions, and robustness converge

- ARM996HS announced in February 2006
  - Jointly market and promote the ARM996HS
  - Licensing of the ARM996HS is done by ARM Ltd

- Potential application domains
  - Automotive
  - Low-cost consumer electronics
  - Wireless
  - Medical implants
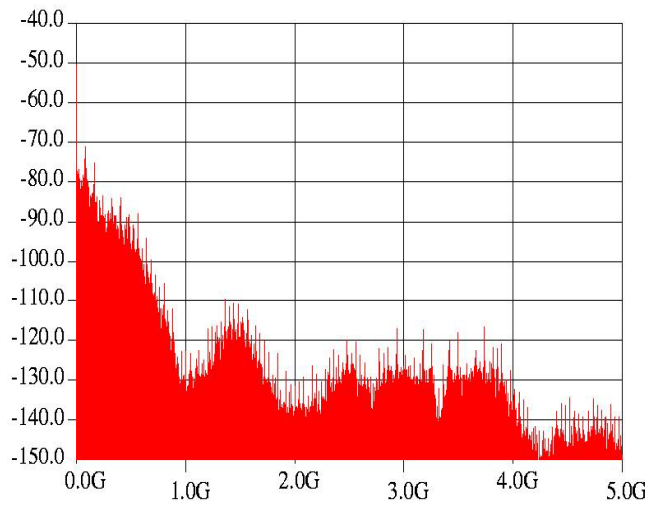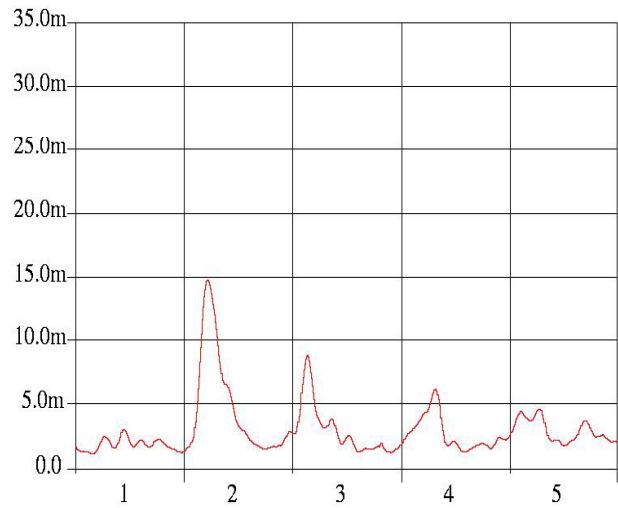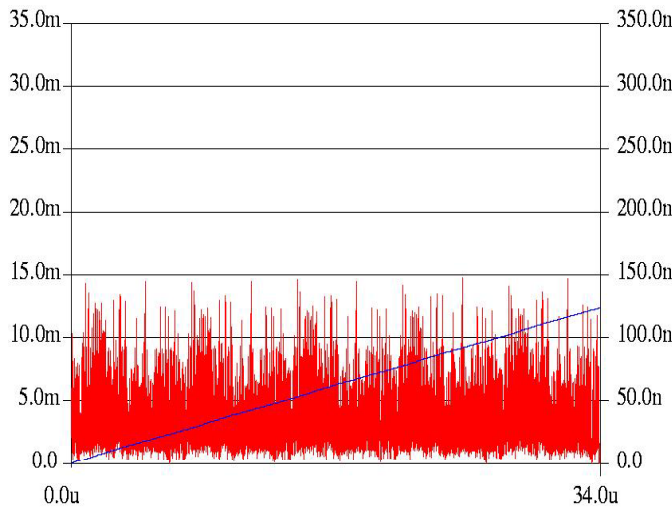 - Smartcards
  - Sensor networks

ARM996HS Overview

- 32-bit RISC CPU core
- ARMv5TE architecture
- Five-stage integer pipeline
- Fast 32-bit MAC
- 16-bit Thumb® and 32-bit ARM instruction sets
- Harvard bus architecture
- Dual AMBA™ 3 AHB-Lite™ interfaces
  - Instruction interface
  - Data interface
- Memory-protection unit (MPU)
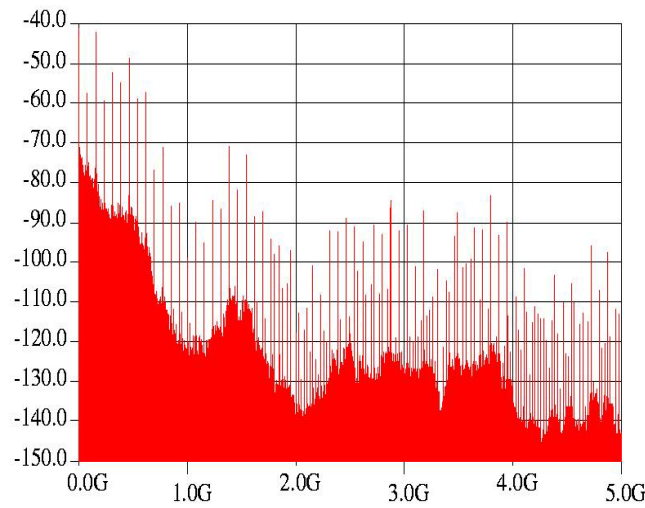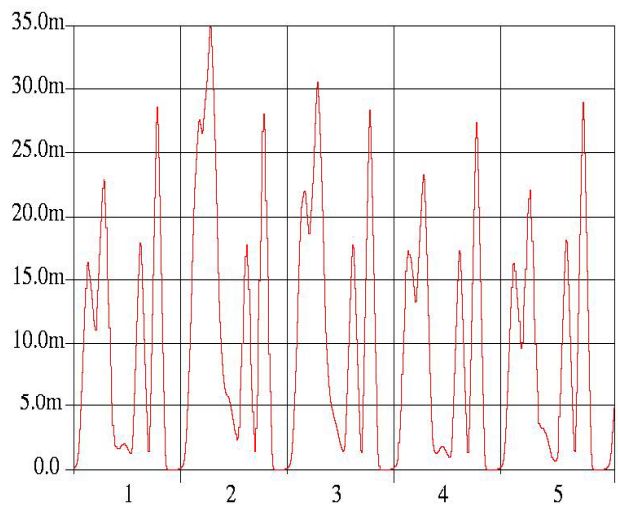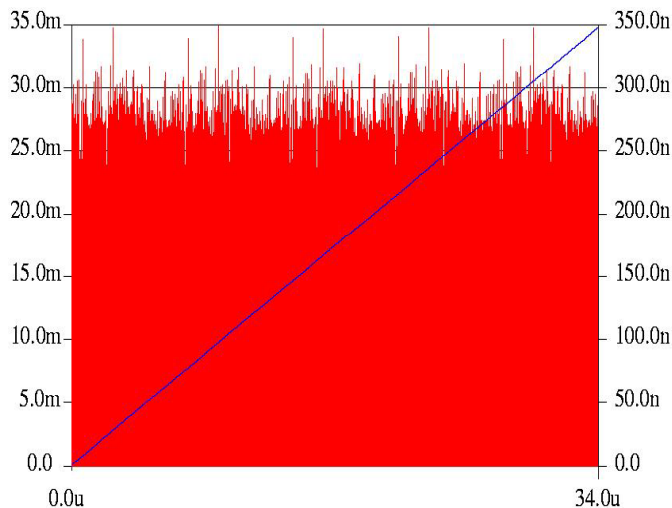- Nonmaskable interrupts (NMI)
- Hardware divide
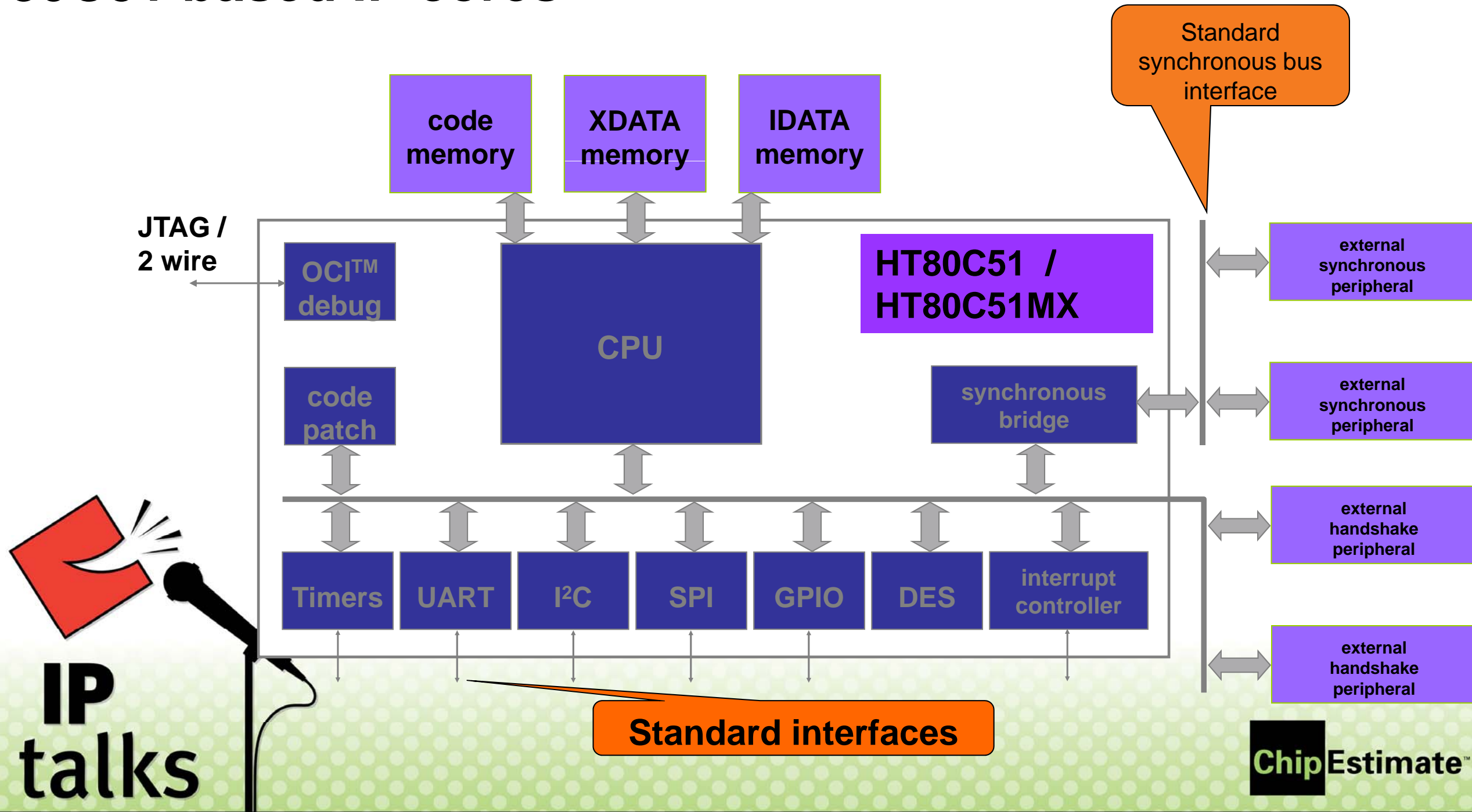
Characteristics

Power   Current peaks   Emission

80C51 based IP cores

Market proven

- More than 200 million ICs with Handshake Technology sold

- 25+ market-tested products

- Proven by many years of use in design projects

- Applications in:
  - Smartcards
  - Automotive
  - Wireless connectivity

ChipEstimate™

Thank you!

- Please stay and talk with Dre

- Explore Handshake Solutions IP at ChipEstimate.com

- Use Handshake Solutions IP to Plan a Chip at DAC (get a DAC Trip Report!)