# Analog Test Engines

**Analog I/O**

- **RT_SK**
- **RT_CK**
- **RT_CK**
- **RT_IO[0][0]**
- **RT_IO[1][0]**
- **RT_IO[2][0]**
- **RT_IO[0][7]**
- **RT_IO[1][7]**
- **RT_IO[2][7]**

**Ch 0**

- **F/S[0]**
- **S[0]**

**Ch 7**

- **F/S[7]**
- **S[7]**

## UTP102 – Octal, 200 Mb/s, 6V, 400 mA Universal Test Pin

### Pin Electronics – Driver
- 50Ω / 5Ω Options
- 200 Mb/s Fmax
- Programmable Pre-Compensation
- 3 Level Driver w/ on-chip levels
- -1V to +5.0V Output Range

### Measurement Capability
- MV / MI Capability
- 2 Bit “Go / No Go” Capability
- 2 Independent Analog Monitors (for use with an External ADC)
- 5V Unipolar ADC Interface Option

### Pin Electronics – Comparator
- 200 Mb/s Fmax
- Dual comparator w/ on-chip thresholds
- -1V to +5V Input Range

### Built In Protection
- Over Temperature Protection / Alarm
- Over Current Protection / Alarm
- Current Clamp Protection / Alarm
- Kelvin Connection Protection
- DUT Ground Continuity Checkers

### Real Time Data I/O
- Synchronous / Asynchronous Interface
- Reduced FPGA pin Count Options
  - 1:2 Shift Mode
  - 1:8 Shift Mode

### Deskew
- Coarse Delay (625 ps resolution)
- Fine Delay (50 ps resolution)

### DPS / PMU / V/I
- FV / FI / MV / MI Capability
- -1V to +5.0V I/O PMU Range
- 0V to +4.0V I/O DPS Range
- 6 Current Ranges (409.6 mA to 4.096 µA)
- Programmable Voltage / Current Clamps
- Ganging Capability
- Power Amplifier Controller Mode
  - High Voltage Operation
  - High Current Operation

### Measurement Capability
- MV / MI Capability
- 2 Bit “Go / No Go” Capability
- 2 Independent Analog Monitors (for use with an External ADC)

### Built In Protection
- Over Temperature Protection / Alarm
- Over Current Protection / Alarm
- Current Clamp Protection / Alarm
- Kelvin Connection Protection
- DUT Ground Continuity Checkers

### UTP100 Compatible
- 2 Pin Serial Port

### Power / Package
- 72 Lead, 10 mm X 10 mm QFN
  - Lead Free
  - Exposed Heat Slug on the Bottom
  - Extremely low ΘJC
- 100 mW ≤ Pdq / Channel ≤ 300 mW
- Separate DPS Positive Power Supply

### Recommended Applications
- Burn-In Test
- Low Cost Functional Test
- BIST / Scan Test
- In-Circuit PCB Test