MassPRO™ MP6101
GPS production test turnkey solution

KEY FEATURES

- GPS production test turnkey solution
- Highly automatic testing procedure
- Built-in high-precision GPS simulator
- Support multiple DUT connectivity (typ. 4 DUT)

- Firmware upgrading possible for various GPS chipset support
- Optional BT MAC address programming
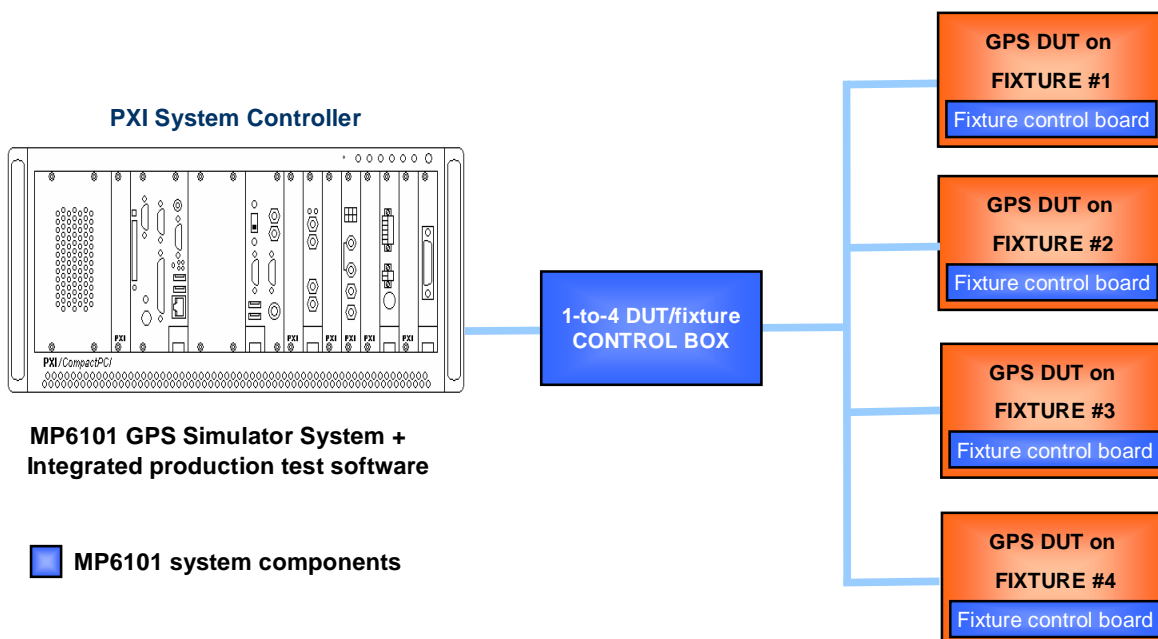- PXI platform eases the combined test by adding various functions of PXI cards

OVERVIEW

The MP6101 is a highly automatic GPS production test turnkey solution. It equips a ultra-high-precision GPS simulator which provides a stable and accurate signal for GPS receivers testing. With the help of built-in test firmware, the MP6101 enables manufacturers to easily perform the product verification testing on the GPS PCBA.

In addition to test automation, the MP6101 also supports multiple DUT connectivity to further increase the production test efficiency. With the help of the integrated testing software, the users need only one click on the test button then the MP6101 will do all the corresponding testing item(s) specified, indicate the testing progress, display the result and log the report file automatically. Besides, BT MAC address programming feature can be optionally upgraded to help the customers who involve in BT+GPS related production.

With the high integration and automation, the MP6101 is very suitable for those customers who require a low cost and high performance production test solution.

SETUP ARCHITECTURE

PXI System Controller

MP6101 GPS Simulator System + Integrated production test software

1-to-4 DUT/fixture CONTROL BOX

GPS DUT on FIXTURE #1 — Fixture control board
GPS DUT on FIXTURE #2 — Fixture control board
GPS DUT on FIXTURE #3 — Fixture control board
GPS DUT on FIXTURE #4 — Fixture control board

■ MP6101 system components

SPECIFICATION

Output Frequency

- L1 1575.42MHz

Frequency accuracy

- +/- 0.01ppm

Phase Modulation

- BPSK

Channel

- Single channel 1 to 32 selectable

NAV Data

- GPS C/A @1.023MHz with 50 bps fixed-pattern data

Output RF Level (Nominal)

- -85 dBm to -135 dBm in 1 dB step

RF control

- ON/OFF/CW

RF connector

- SMA type

Master Oscillator

- Frequency:
  10.23MHz
- Thermal stability:
  0.02ppm @ -30 ~ +70°C
- Aging:
  0.1ppm/yr (0.001ppm/day)
- Phase noise:
  -85dBc/Hz @1Hz
  -140dBc/Hz @100Hz
  -150dBc/Hz @10KHz
- Short-term stability:
  1.0E-011 @ 1 sec
  0.0E+000 @ 10 secs

System Specification

- System
  OS: Microsoft® Windows® XP
  CPU: Celeron® / Pentium® M
  Chipset: Intel® 855GME + ICH4
  Input: 100-240VAC
  Size: 257.1x177x212.8mm (W x H x D)
  Weight: 5Kg
- Environment:
  Operating temperature: 0 ~ +50°C
  Storage temperature   : -20 ~ +70°C