

# TADPOLE "TOPAZ"

## Powerful V2 Rugged Notebook



### V2 Rugged Mobile Computer

Compact Notebook form factor

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Lightweight package

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Large 15.1" Outdoor  
readable screen

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Touch Screen Option

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Runs your most critical Windows®, Linux™  
and Solaris™ applications under demanding  
field conditions

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### Overview

The Tadpole "TOPAZ" by General Dynamics is a lightweight, rugged, high performance computer in a lightweight notebook form factor. Security, flexibility and speed make it the perfect rapid deployment solution.

The Tadpole "TOPAZ" notebook form factor allows for mobility in a rugged notebook design. With the latest generation 45nm Intel® Core™ 2 Duo Mobile processors, up to 8GB of high performance DRAM and the flexibility to support high performance discrete graphics, the Tadpole "TOPAZ" is small and light enough to be hand carried in the most demanding environments. It has the capability to run Windows®, Linux™ and Solaris™ applications. Features such as three segregated, copper independent, Ethernet ports enable the Tadpole "TOPAZ" to be used in trusted operating environments that are required to work with multiple security networks.

The V2 rugged Tadpole "TOPAZ" is environmentally tested to MIL-STD-810F and is tested to MIL-STD-461E for electromagnetic emissions and susceptibility.



**GENERAL DYNAMICS**  
C4 Systems

# TADPOLE "TOPAZ"

## Processor:

- Intel® Core™2 Duo Processor, 45nm
- T9800 6 MB L2 Cache, 2.93 GHz, 1066 MHz FSB, 35W (2-yr support)
- T9400 6 MB L2 Cache, 2.53GHz, 1066 MHz FSB, 35W (7-yr support)
- P9600 6 MB L2 Cache, 2.66GHz, 1066 MHz FSB, 25W (2-yr support)
- P8400 3MB L2 Cache, 2.26GHz, 1066MHz FSB, 25W (2-yr support)

## Chipset:

- Mobile Intel® GM45 Express Chipset

## Software:

- Windows Vista 32-bit,
- Windows Vista 64-bit,
- Red Hat Enterprise Linux 5
- Solaris 10,
- Solaris 10 with Trusted Extensions

## Memory:

- Up to 8GB 1067MHz DDR3 SDRAM

## Graphics:

- Integrated Mobile Intel® Graphics Media Accelerator (GMA) 4500MHD.
- Optional high performance discrete graphics

## LCD Display Options:

- SXGA+: 15.1" (1400 x 1050) color display

## Keypad/Trackpad:

- Integrated weather sealed, backlit full-sized QWERTY keyboard with integrated track pad

## External Video:

- External video support for resolutions up to 2048 x 1536, 32-bit color

## Hard Drive Options:

- Removable 1 2.5" SATA disk drives, 3.0Gb/s
- Up to 500GB, 5400rpm,
- Up to 320GB, 7200rpm
- Up to 240GB Solid State Disk

## Optical Drive Options:

- Removable 1 8X DVD / 24X CD-ROM
- Removable 1 8X DVD±RW / 24X CD-RW

## Ethernet:

- Three copper independent Gigabit Ethernet ports (10/100/1000) via RJ-45.
- Hard Drive Options:

## Wi-Fi Option:

- Optional integrated 802.11n wireless (backward compatible with 802.11a/b/g)

## USB:

- Four USB 2.0 Standard-A ports with individual cable strain relief.

## Serial Ports:

- One RS232/485/422 asynchronous serial port via DB-9 connector
- One RS232 asynchronous serial port via DB-25 connector
- One RS232 synchronous serial port via DB-25 connector

## Audio:

- Intel® High Definition Audio with audio amplifier and speakers.
- 3.5mm Audio jacks for (1) line-in, (1) Mic-in, (1) headphone-out

## PCCARD/PCMCIA:

- Two Type I/II PCCard (32-bit)/PCMCIA (16-bit) slots with cable strain relief

## Expresscard:

- One 34mm/54mm universal ExpressCard slot with cable strain relief

## Smart Card Reader:

- Integrated Smart Card Reader compliant with DoD Common Access Card (CAC) reader specification and ISO 7816 Personal Computer Smart Cards

## TPM:

- Integrated Trusted Platform Module (TPM) version 1.2

## Battery:

- 9-cell, 7200mAh Li-ion battery pack

## DC Power:

- 18-32VDC Input Power

## AC Power Adapter:

- 110v-240v, 50/60Hz autosensing AC Adapter

## Physical:

- Integrated carry handle and removable shoulder strap

## Dimensions (excluding handles):

- Width: 14.85"
- Depth: 11.25"
- Height: 2"

## Weight:

- Approximately 12lbs (configured with HDD, Optical drive and battery)

## Fungus:

- No nutrients/contaminants

## Environmental (in accordance with MIL-STD-810F)

- Temperature:
  - Operating: -18°C to +50°C (0°F to +122°F)
  - Non-Operating2: -32°C to +71°C (-25°F to +160°F)

## Altitude:

- Operating: 0 – 12,500ft
- Non-Operating2: 0 – 30,000ft

## Humidity:

- Operating: 10% – 95% RH
- Non-Operating2: 5% - 95% RH

## Rain:

- Operating/Non-Operating: Rainfall rate of 1.8"/hour and wind velocity of 20mph

## Sand:

- Operating/Non-Operating: 20mph ±3mph per surface, concentration 2.2 ± 0.5 g/m<sup>3</sup>

## Dust:

- Operating/Non-Operating: 20mph ±3mph per surface, concentration 10.6 ± 0.7 g/m<sup>3</sup>

## Shock:

- System: 36" drop on each face
- Removable HDD: 36" drop on each face
- Battery pack: 36" drop on each face

## Shock (Functional):

- 30g, 11ms half sine-wave

## Electromagnetics

- Radiated Emissions & Susceptibility:
  - MIL-STD-461E
- Conducted Emissions & Susceptibility:
  - MIL-STD-461E
- Electrostatic Discharge:
  - MIL-STD-464A
- High Altitude Electronic Pulse (HEMP):
  - MIL-STD-461E

## GENERAL DYNAMICS C4 Systems

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