

Comparison of Texas Instruments graphing calculators

A graphing calculator is a class of hand-held calculator that is capable of plotting graphs and solving complex functions. There are several companies that manufacture models of graphing calculators. Texas Instruments is a major manufacturer.

The following table compares general and technical information for a selection of common and uncommon Texas Instruments graphing calculators. Many of the calculators in this list have region-specific models that are not individually listed here, such as the TI-84 Plus CE-T, a TI-84 Plus CE designed for non-French European markets. These region-specific models are usually functionally identical to each other, aside from minor cosmetic differences and circuit board hardware revisions. See the individual calculators' articles for further information.

| Calculator | CPU | RAM | Display Size | Physical Size (inches) | Contains CAS | Year Released | Initial MSRP (nominal US\$)[1] | Use on College Board Standardized Tests ^[2] | Use on ACT Standardized Tests ^[3] |
|---|---|---|---|-----------------------------------|-----------------|------------------|--------------------------------|---|--|
| TI-73, TI-73 Explorer | Zilog Z80 @ 6 MHz | 25 KB of RAM, 512 KB of Flash ROM | 96×64 pixels 16×8 characters | 7.3 × 3.5 × 1.0 ^[4] | No | 1998/2003 | 95 (TI- 73) | Allowed | Allowed |
| TI-80 | 980 kHz Proprietary | 8 KB of RAM (7 KB user accessible) | 64×48 pixels 16×8 characters | 6.4 × 3.0 × 0.9 ^[4] | No | 1995 | Unknown | Allowed | Allowed |
| TI-81 | Zilog Z80 @ 2 MHz | 8 KB of RAM (2.4 KB user accessible) | 96×64 pixels 16×8 characters | 6.75 x 3.125 x 1.0 | No | 1990 | 110 | Allowed | Allowed |
| TI-82 | Zilog Z80 @ 6 MHz | 28 KB of RAM | 96×64 pixels 16×8 characters | 6.9 × 3.4 × 1.0 ^[4] | No | 1993 | 125 | Allowed | Allowed |
| TI-83 | Zilog Z80 @ 6 MHz | 32 KB of RAM | 96×64 pixels 16×8 characters | 7.3 × 3.5 × 1.0 ^[4] | No | 1996 | 125 | Allowed | Allowed |
| TI-83 Plus | Zilog Z80 @ 6 MHz | 32 KB of RAM (24 KB user accessible), 512 KB of Flash ROM (160 KB user accessible) | 96×64 pixels 16×8 characters | 7.3 × 3.5 × 1.0 ^[4] | No | 1999 | 104.99 | Allowed | Allowed |
| TI-83 Plus Silver Edition | Zilog Z80 @ 6 MHz/15 MHz (Dual Speed) | 128 KB of RAM (24 KB user accessible), 2 MB of Flash ROM (1.5 MB user accessible) | 96×64 pixels 16×8 characters | 7.3 × 3.5 × 1.0 ^[4] | No | 2001 | 129.95 | Allowed | Allowed |
| TI-83 Premium CE, TI-83 Premium CE Edition Python | Zilog eZ80 @ 48 MHz | 256 KB of RAM (150 KB user accessible), 4 MB of Flash ROM (3 MB user accessible) | 320×240 pixels 26×10 characters (large font) | 7.6 × 3.4 × 0.75 | No | 2015/2019 | €129 | Allowed | Allowed |

| TI-84 Plus | Zilog Z80 @ 15 MHz | 128/48 KB of RAM (24 KB user accessible), 1 MB of Flash ROM (480 KB user accessible) | 96×64 pixels 16×8 characters | 7.5 × 3.3 × 0.9 | No | 2004 | 109.99 | Allowed | Allowed |
|-----------------------------------|---|---|---|-----------------------------------|-----|-----------|-----------------|-------------|-------------|
| TI-84 Plus Silver Edition | Zilog Z80 @ 15 MHz | 128/48 KB of RAM (24 KB user accessible), 2 MB of Flash ROM (1.5 MB user accessible) | 96×64 pixels 16×8 characters | 7.5 × 3.3 × 0.9 | No | 2004 | 129.99 | Allowed | Allowed |
| Ti-84 Plus C Silver Edition | Zilog Z80 @ 15 MHz | 128 KB of RAM (21 KB user accessible), 4 MB of Flash ROM (3.5 MB user accessible) | 320×240 pixels 26×10 characters (large font) | 7.5 × 3.3 × 0.9 | No | 2013 | 150 | Allowed | Allowed |
| TI-84 Plus CE | Zilog eZ80 @ 48 MHz | 256 KB of RAM (154 KB user accessible), 4 MB of Flash ROM (3 MB user accessible) | 320×240 pixels 26×10 characters (large font) | 7.6 × 3.4 × 0.75 | No | 2015 | 150 | Allowed | Allowed |
| TI-85 | Zilog Z80 @ 6 MHz | 28 KB of RAM | 128×64 pixels 21×8 characters | 6.875 x 3.31 x 0.938 | No | 1992 | 130 | Allowed | Allowed |
| TI-86 | Zilog Z80 @ 6 MHz | 128 KiB of RAM | 128×64 pixels 21×8 characters | 7.3 × 3.5 × 1.0 ^[4] | No | 1996 | 150 | Allowed | Allowed |
| TI-89 | Motorola 68000 @ 10 MHz/12 MHz (nominal) | 256 KiB of RAM (188 KB user accessible), 2 MiB of Flash ROM | 160×100 pixels | 7.3 × 3.5 × 1.0 ^[4] | Yes | 1998 | 159.99 | Allowed | Not Allowed |
| TI-89 Titanium | Motorola 68000 @ ≤16 MHz | 256 KiB of RAM (188 KB user accessible), 2.7 MB of Flash ROM | 160×100 pixels | 7.5 × 3.3 × 0.9 | Yes | 2004 | 149.99 | Allowed | Not Allowed |
| TI-92, TI-92 II | Motorola 68000 @ 10 MHz | 68 KB of RAM/136 KB of RAM | 240×128 pixels | 4.7 x 8.2 x 1.5 | Yes | 1995/1996 | 200 (TI- 92) | Not Allowed | Not Allowed |
| TI-92 Plus | Motorola 68000 @ 12 MHz | 256 KB of RAM (188 KB user accessible), 384 KB of Flash ROM | 240×128 pixels | 4.7 × 8.2 × 1.5 ^[4] | Yes | 1998 | 179.99 | Not Allowed | Not Allowed |

| Voyage 200 | Motorola 68000 @ 12 MHz | 256 KB of RAM (188 KB user accessible), 2.7 MB of Flash ROM | 240×128 pixels | 4.6 × 7.3 × 1.2 ^[4] | Yes | 2002 | 129.99 | Not Allowed | Not Allowed |
|---|----------------------------------|--|---|-------------------------------------|----------------------|------------------------|---|--|--|
| TI-Nspire, TI-Nspire CAS | ARM9 @ 90 MHz/120 MHz | 16 MB RAM, 20 MB of Flash ROM | 320×240 pixels (16- shade grayscale) | 7.90625 × 3.9375 × 0.96875 | Only CAS model | 2007 (CAS: 2010) | 149 (CAS: 159) | Allowed | Only non- CAS model is allowed |
| TI-Nspire CX, TI- Nspire CX CAS | ARM9 @ 132 MHz ^[5] | 64 MB of RAM, 100 MB of Flash ROM | 320×240 pixels (16- bit color) | 7.5625 × 3.59375 × 0.75 | Only CAS model | 2011 | 154.99 (CAS: 162.99) | Allowed | Only non- CAS model is allowed |
| TI-Nspire CX II, TI- Nspire CX CAS II | ARM9 @ 396 MHz | 64 MB of RAM, 100 MB of Flash ROM | 320×240 pixels (16- bit color) | 7.5625 × 3.59375 × 0.75 | Only CAS model | 2019 | 165 (CAS: 175) | Allowed | Only non- CAS model is allowed |
| Calculator | CPU | RAM | Display Size | Physical Size | Contains CAS | Year Released | Initial MSRP (nominal US\$) ^[1] | Use on College Board Standardized Tests ^[2] | Use on ACT Standardized Tests ^[3] |

Programming language support

| Calculator | TI-BASIC | Native code | Lua | Python |
|-----------------------|----------|---------------------|-----|--------|
| TI-73, TI-73 Explorer | Yes | Yes | No | No |
| TI-80 | Yes | Only using exploits | No | No |
| TI-81 | Yes | Only using exploits | No | No |
| TI-82 | Yes | Only using exploits | No | No |

| TI-83 | Yes | Yes | No | No |
|----------------------------------|-----|---------------------|----|--|
| TI-83 Plus | Yes | Yes | No | No |
| TI-83 Plus Silver Edition | Yes | Yes | No | No |
| TI-83 Premium CE | Yes | Varies by firmware | No | Only with a TI-Python adapter ^[6] |
| TI-83 Premium CE Edition Python | Yes | Varies by firmware | No | Yes |
| TI-84 Plus | Yes | Yes | No | No |
| TI-84 Plus Silver Edition | Yes | Yes | No | No |
| TI-84 Plus C Silver Edition | Yes | Yes | No | No |
| TI-84 Plus CE | Yes | Varies by firmware | No | No |
| TI-84 Plus CE(-T) Python Edition | Yes | Varies by firmware | No | Yes |
| TI-85 | Yes | Only using exploits | No | No |
| TI-86 | Yes | Yes | No | No |

| TI-89 | Yes | Yes | No | No |
|---------------------------------------|-----|---------------------|-----|------------------------------------|
| TI-89 Titanium | Yes | Yes | No | No |
| TI-92, TI-92 II | Yes | Only using exploits | No | No |
| TI-92 Plus | Yes | Yes | No | No |
| Voyage 200 | Yes | Yes | No | No |
| TI-Nspire, TI-Nspire CAS | Yes | Only using exploits | Yes | Only using exploits ^[7] |
| TI-Nspire CX, TI-Nspire CX CAS | Yes | Only using exploits | Yes | Only using exploits ^[7] |
| TI-Nspire CX II, TI- Nspire CX CAS II | Yes | Only using exploits | Yes | Yes ^[8] |

See also

Comparison of HP graphing calculators

References

- 1. "Home" (http://www.datamath.org/). datamath.org.
- "AP Central AP Calculator Policy" (http://apcentral.collegeboard.com/apc/public/ap_coordinators/on_exam_day/232033.html). apcentral.collegeboard.com. Retrieved 2017-05-13.
- 3. "ACT Calculator Policy" (http://www.act.org/content/dam/act/unsecured/documents/ACT-calculator-policy.pdf) (PDF). act.org. Retrieved 2019-10-19.
- 4. "Size and Weight Specifications of Texas Instruments Graphing Calculators" (https://epsstore.ti.com/OA_HTML/csksxvm.jsp?nSetld=80334).
- 5. "Nover 3: Boost your Nspire with the automatic overclocker" (http://www.omnimaga.org/news/nover-3-boost-your-nspire-with-the-a utomatic-overclocker/).
- 6. "Python-for-TI-83-Premium-CE" (https://education.ti.com/fr/product-resources/python-for-ti-83-premium-ce). education.ti.com (in French). Retrieved 2020-02-08.
- 7. "Ti-Planet-Micropython" (https://tiplanet.org/forum/archives_voir.php?id=313881). tiplanet.org. Retrieved 2023-03-02.
- 8. "Programming-in-Python" (https://education.ti.com/en/products/calculators/graphing-calculators/ti-nspire-cx-ii-cx-ii-cas/programmin g-in-python). education.ti.com. Retrieved 2020-08-30.

