

Cable TV Channel Frequencies

The visual carrier frequency is shown in this chart. For the aural carrier frequency, add 4.5 MHz to the visual carrier. The lower edge of the channel is 1.25 MHz below the visual carrier and the upper edge is 4.75 MHz above the visual carrier.

| | Channel designation | | Visual carrier (MHz) | | | |
|-----------------|---------------------|-------------|-----------------------|------------|------------|-----------|
| | EIA/NCTA | Traditional | Standard | <u>HRC</u> | <u>IRC</u> | Broadcast |
| T Band | | T-7 | 7.00 | | | |
| | | T-8 | 13.00 | | | |
| | | T-9 | 19.00 | | | |
| | | T-10 | 25.00 | | | |
| | | T-11 | 31.00 | | | |
| | | T-12 | 37.00 | | | |
| | | T-13 | 43.00 | | | |
| | | T-14 | 49.00 | | | |
| Low Band | 2 | 2 | 55.25 | 54.0027 | 55.2625 | 55.25 |
| | 3 | 3 | 61.25 | 60.0030 | 61.2625 | 61.25 |
| | 4 | 4 | 67.25 | 66.0033 | 67.2625 | 67.25 |
| | 1 | A-8 | | 72.0036 | 73.2625 | |
| | 5 | 5 | 77.25 | 78.0039 | 79.2625 | 77.25 |
| | 6 | 6 | 83.25 | 84.0042 | 85.2625 | 83.25 |
| FM Band | 95 | A-5 | 91.25 | 90.0045 | 91.2625 | |
| | 96 | A-4 | 97.25 | 96.0048 | 97.2625 | |
| | 97 | A-3 | 103.25 | 102.0051 | 103.2625 | |
| | Channel designation | | Visual carrier (MHz) | | | |
| | EIA/NCTA | Traditional | Standard | <u>HRC</u> | <u>IRC</u> | Broadcast |
| Mid Band | 98 | A-2 | 109.275 ² | 108.0054 | 109.275 | |
| | 99 | A-1 | 115.275 ² | 114.0057 | 115.275 | |
| | 14 | A | 121.2625 ⁴ | 120.0060 | 121.2625 | 471.25 |
| | 15 | B | 127.2625 ⁴ | 126.0063 | 127.2625 | 477.25 |
| | 16 | C | 133.2625 ⁴ | 132.0066 | 133.2625 | 483.25 |
| | 17 | D | 139.25 | 138.0069 | 139.2625 | 489.25 |
| | 18 | E | 145.25 | 144.0072 | 145.2625 | 495.25 |
| | 19 | F | 151.25 | 150.0075 | 151.2625 | 501.25 |
| | 20 | G | 157.25 | 156.0078 | 157.2625 | 507.25 |
| | 21 | H | 163.25 | 162.0081 | 163.2625 | 513.25 |
| | 22 | I | 169.25 | 168.0084 | 169.2625 | 519.25 |

| | Channel designation | | Visual carrier (MHz) | | | |
|-------------------|---------------------|-------------|-----------------------|----------|----------|-----------|
| | EIA/NCTA | Traditional | Standard | HRC | IRC | Broadcast |
| High Band | 7 | 7 | 175.25 | 174.0087 | 175.2625 | 175.25 |
| | 8 | 8 | 181.25 | 180.0090 | 181.2625 | 181.25 |
| | 9 | 9 | 187.25 | 186.0093 | 187.2625 | 187.25 |
| | 10 | 10 | 193.25 | 192.0096 | 193.2625 | 193.25 |
| | 11 | 11 | 199.25 | 198.0099 | 199.2625 | 199.25 |
| | 12 | 12 | 205.25 | 204.0102 | 205.2625 | 205.25 |
| | 13 | 13 | 211.25 | 210.0105 | 211.2625 | 211.25 |
| | Channel designation | | Visual carrier (MHz) | | | |
| | EIA/NCTA | Traditional | Standard | HRC | IRC | Broadcast |
| Super Band | 23 | J | 217.25 | 216.0108 | 217.2625 | 525.25 |
| | 24 | K | 223.25 | 222.0111 | 223.2625 | 531.25 |
| | 25 | L | 229.2625 ⁴ | 228.0114 | 229.2625 | 537.25 |
| | 26 | M | 235.2625 ⁴ | 234.0117 | 235.2625 | 543.25 |
| | 27 | N | 241.2625 ⁴ | 240.0120 | 241.2625 | 549.25 |
| | 28 | O | 247.2625 ⁴ | 246.0123 | 247.2625 | 555.25 |
| | 29 | P | 253.2625 ⁴ | 252.0126 | 253.2625 | 561.25 |
| | 30 | Q | 259.2625 ⁴ | 258.0129 | 259.2625 | 567.25 |
| | 31 | R | 265.2625 ⁴ | 264.0132 | 265.2625 | 573.25 |
| | 32 | S | 271.2625 ⁴ | 270.0135 | 271.2625 | 579.25 |
| | 33 | T | 277.2625 ⁴ | 276.0138 | 277.2625 | 585.25 |
| | 34 | U | 283.2625 ⁴ | 282.0141 | 283.2625 | 591.25 |
| | 35 | V | 289.2625 ⁴ | 288.0144 | 289.2625 | 597.25 |
| | 36 | W | 295.2625 ⁴ | 294.0147 | 295.2625 | 603.25 |
| | Channel designation | | Visual carrier (MHz) | | | |
| | EIA/NCTA | Traditional | Standard | HRC | IRC | Broadcast |
| | 37 | AA | 301.2625 ⁴ | 300.0150 | 301.2625 | 609.25 |
| | 38 | BB | 307.2625 ⁴ | 306.0153 | 307.2625 | 615.25 |
| | 39 | CC | 313.2625 ⁴ | 312.0156 | 313.2625 | 621.25 |
| | 40 | DD | 319.2625 ⁴ | 318.0159 | 319.2625 | 627.25 |
| | 41 | EE | 325.2625 ⁴ | 324.0162 | 325.2625 | 633.25 |
| | 42 | FF | 331.275 ² | 330.0165 | 331.275 | 639.25 |
| | 43 | GG | 337.2625 ⁴ | 336.0168 | 337.2625 | 645.25 |
| | 44 | HH | 343.2625 ⁴ | 342.0171 | 343.2625 | 651.25 |

| 45 | II | 349.2625 ⁴ | 348.0174 | 349.2625 | 657.25 |
|---------------------|-------------|-----------------------|----------|----------|-----------|
| 46 | JJ | 355.2625 ⁴ | 354.0177 | 355.2625 | 663.25 |
| 47 | KK | 361.2625 ⁴ | 360.0180 | 361.2625 | 669.25 |
| 48 | LL | 367.2625 ⁴ | 366.0183 | 367.2625 | 675.25 |
| 49 | MM | 373.2625 ⁴ | 372.0186 | 373.2625 | 681.25 |
| 50 | NN | 379.2625 ⁴ | 378.0189 | 379.2625 | 687.25 |
| 51 | OO | 385.2625 ⁴ | 384.0192 | 385.2625 | 693.25 |
| 52 | PP | 391.2625 ⁴ | 390.0195 | 391.2625 | 699.25 |
| 53 | QQ | 397.2625 ⁴ | 396.0198 | 397.2625 | 705.25 |
| 54 | RR | 403.25 | 402.0201 | 403.2625 | 711.25 |
| 55 | SS | 409.25 | 408.0204 | 409.2625 | 717.25 |
| 56 | TT | 415.25 | 414.0207 | 415.2625 | 723.25 |
| 57 | UU | 421.25 | 420.0210 | 421.2625 | 729.25 |
| 58 | VV | 427.25 | 426.0213 | 427.2625 | 735.25 |
| 59 | WW | 433.25 | 432.0216 | 433.2625 | 741.25 |
| 60 | XX | 439.25 | 438.0219 | 439.2625 | 747.25 |
| 61 | YY | 445.25 | 444.0222 | 445.2625 | 753.25 |
| 62 | ZZ | 451.25 | 450.0225 | 451.2625 | 759.25 |
| Channel designation | | Visual carrier (MHz) | | | |
| EIA/NCTA | Traditional | Standard | HRC | IRC | Broadcast |
| 63 | | 457.25 | 456.0228 | 457.2625 | 765.25 |
| 64 | | 463.25 | 462.0231 | 463.2625 | 771.25 |
| 65 | | 469.25 | 468.0234 | 469.2625 | 777.25 |
| 66 | | 475.25 | 474.0237 | 475.2625 | 783.25 |
| 67 | | 481.25 | 480.0240 | 481.2625 | 789.25 |
| 68 | | 487.25 | 486.0243 | 487.2625 | 795.25 |
| 69 | | 493.25 | 492.0246 | 493.2625 | 801.25 |
| 70 | | 499.25 | 498.0249 | 499.2625 | 807.25 |
| 71 | | 505.25 | 504.0252 | 505.2625 | 813.25 |
| 72 | | 511.25 | 510.0255 | 511.2625 | 819.25 |
| 73 | | 517.25 | 516.0258 | 517.2625 | 825.25 |
| 74 | | 523.25 | 522.0261 | 523.2625 | 831.25 |
| 75 | | 529.25 | 528.0264 | 529.2625 | 837.25 |
| 76 | | 535.25 | 534.0267 | 535.2625 | 843.25 |
| 77 | | 541.25 | 540.0270 | 541.2625 | 849.25 |
| 78 | | 547.25 | 546.0273 | 547.2625 | 855.25 |
| | | | | | |

| | | | | |
|-----|--------|----------|----------|--------|
| 79 | 553.25 | 552.0276 | 553.2625 | 861.25 |
| 80 | 559.25 | 558.0279 | 559.2625 | 867.25 |
| 81 | 565.25 | 564.0282 | 565.2625 | 873.25 |
| 82 | 571.25 | 570.0285 | 571.2625 | 879.25 |
| 83 | 577.25 | 576.0288 | 577.2625 | 885.25 |
| 84 | 583.25 | 582.0291 | 583.2625 | |
| 85 | 589.25 | 588.0294 | 589.2625 | |
| 86 | 595.25 | 594.0297 | 595.2625 | |
| 87 | 601.25 | 600.0300 | 601.2625 | |
| 88 | 607.25 | 606.0303 | 607.2625 | |
| 89 | 613.25 | 612.0306 | 613.2625 | |
| 90 | 619.25 | 618.0309 | 619.2625 | |
| 91 | 625.25 | 624.0312 | 625.2625 | |
| 92 | 631.25 | 630.0315 | 631.2625 | |
| 93 | 637.25 | 636.0318 | 637.2625 | |
| 94 | 643.25 | 642.0321 | 643.2625 | |
| 100 | 649.25 | 648.0324 | 649.2625 | |
| 101 | 655.25 | 654.0327 | 655.2625 | |
| 102 | 661.25 | 660.0330 | 661.2625 | |
| 103 | 667.25 | 666.0333 | 667.2625 | |
| 104 | 673.25 | 672.0336 | 673.2625 | |
| 105 | 679.25 | 678.0339 | 679.2625 | |
| 106 | 685.25 | 684.0342 | 685.2625 | |
| 107 | 691.25 | 690.0345 | 691.2625 | |
| 108 | 697.25 | 696.0348 | 697.2625 | |
| 109 | 703.25 | 702.0351 | 703.2625 | |
| 110 | 709.25 | 708.0354 | 709.2625 | |
| 111 | 715.25 | 714.0357 | 715.2625 | |
| 112 | 721.25 | 720.0360 | 721.2625 | |
| 113 | 727.25 | 726.0363 | 727.2625 | |
| 114 | 733.25 | 732.0366 | 733.2625 | |
| 115 | 739.25 | 738.0369 | 739.2625 | |
| 116 | 745.25 | 744.0372 | 745.2625 | |
| 117 | 751.25 | 750.0375 | 751.2625 | |
| 118 | 757.25 | 756.0378 | 757.2625 | |
| 119 | 763.25 | 762.0381 | 763.2625 | |
| 120 | 769.25 | 768.0384 | 769.2625 | |
| 121 | 775.25 | 774.0387 | 775.2625 | |

| | | | | | |
|----------------------------|--------------------|-----------------------------|-------------------|-------------------|------------------|
| 122 | | 781.25 | 780.0390 | 781.2625 | |
| 123 | | 787.25 | 786.0393 | 787.2625 | |
| 124 | | 793.25 | 792.0396 | 793.2625 | |
| 125 | | 799.25 | 798.0399 | 799.2625 | |
| EIA/NCTA | Traditional | Standard | <u>HRC</u> | <u>IRC</u> | Broadcast |
| Channel designation | | Visual carrier (MHz) | | | |

1. Cable channels operating on frequencies used in the aeronautical radiocommunications bands 118-137, 225-328.6 and 335.4-400 MHz are required to be offset by 12.5 kHz from 25 kHz-spaced channels [FCC Rules section [76.612](#) (a)]. The common offset is positive.

2. Cable channels operating on frequencies used in the aeronautical radiocommunications bands 108-118 and 328.6-335.4 MHz are required to be offset by 25 kHz from 50 kHz-spaced channels [FCC Rules section [76.612](#) (b)]. The common offset is positive.

More information on television channel frequencies:

- In 1997, the American National Standards Institute (ANSI) approved standard EIA-542, *Cable Television Channel Identification Plan*. The standard can be purchased from [Global Engineering Documents](#). The standard specifies HRC channels as shown here except that channel 98 is 108.025 MHz and channel 99 is 114.025 MHz.

To calculate the frequency of any EIA-542 channel above 99:

Standard:

$$\text{Frequency_in_MHz} = (6 * (8 + \text{channel_designation})) + 1.25$$

HRC:

$$\text{Frequency_in_MHz} = 6.0003 * (8 + \text{channel_designation})$$

IRC:

$$\text{Frequency_in_MHz} = (6 * (8 + \text{channel_designation})) + 1.2625$$

- The frequency of over-the-air broadcast channels 2 through 69 is specified in [FCC Rule 73.603](#). Channels 70 through 83 were re-allocated for other services but older equipment is capable of receiving on those channels.
- "HRC" is harmonically related carriers. "IRC" is incrementally related carriers. These are schemes that some cable systems use to reduce the visibility of beat products.

"By harmonically relating the carrier frequencies themselves it is ... possible to improve system performance. This does not reduce the beats produced, but positions them within the system transmission spectrum such that they are more tolerable. In effect, all signal carriers are spaced precisely 6 MHz apart, thus all beats generated are at 6 MHz increments.

"Since the television signals are vestigial sideband modulated, if the beat products can be manipulated to fall on or near the RF carriers themselves, they are much less offensive.."

--from William Grant, *Cable Television, 2nd edition*, GWG Associates, Schoharie, NY, 1988, page 82

The FCC rules suggest that the actual frequency of the fundamental oscillator in HRC comb generators

"shall be 6.0003 MHz [[FCC Rule 76.612](#) (a) (2)]."

- [Andy Davenport's Cable TV Channel Chart](#)
 - [Clay Irving's list of broadcast and cable television channels and their frequencies](#)
 - [List of broadcast and cable television channels and frequencies at www.qsl.net](#)
 - [Radio frequency spectrum allocations](#)
-

Last modified: Wednesday, October 19, 2005 at 12:08 AM ET.

This page written by [John Neuhaus](#), WA2JXE. Please send your comments and suggestions to <[john at jneuhaus.com](mailto:john@jneuhaus.com)>.

Disclaimer: John Neuhaus makes no warranty as to the accuracy or completeness of the information on these pages. All risk relating to its use is assumed by the user.